The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 12-100 January 31, 2013

Petition of Bay State Gas Company, d/b/a Columbia Gas of Massachusetts, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2013 through 2015.

D.P.U. 12-101

Petition of The Berkshire Gas Company, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2013 through 2015.

D.P.U. 12-102

Petition of Blackstone Gas Company, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2013 through 2015.

D.P.U. 12-103

Petition of Boston Gas Company and Colonial Gas Company, each 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 2013 through 2015.

D.P.U. 12-104

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 2013 through 2015.

D.P.U. 12-105

Petition of NSTAR Gas Company, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2013 through 2015.

D.P.U. 12-106

Petition of New England Gas Company, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2013 through 2015.

D.P.U. 12-107

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 2013 through 2015.

D.P.U. 12-108

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 2013 through 2015.

D.P.U. 12-109

Petition of Massachusetts Electric Company and Nantucket Electric Company, each 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 2013 through 2015.

D.P.U. 12-110

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 2013 through 2015.

D.P.U. 12-111

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 2013 through 2015.

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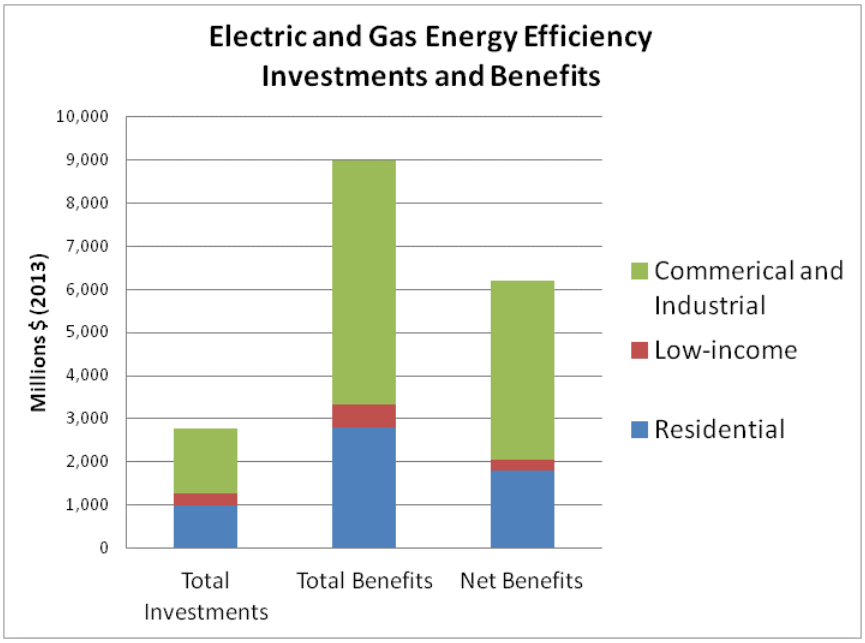
In today's Order, the Department of Public Utilities approves the Three-Year Energy Efficiency Plans of the Commonwealth's electric and gas distribution companies and the Cape Light Compact ("Program Administrators") for 2013-2015. The Department finds that the plans meet the requirements of the Green Communities Act's mandate to acquire all available cost-effective energy efficiency resources. In aggregate, the plans will provide net benefits for customers of $6.2 billion over the life of the installed measures. With a benefit-to-cost ratio greater than three-to-one; for every dollar invested in energy efficiency, ratepayers will receive over three dollars in return over the lifetime of measures installed (see Chart 1, below). In addition, the proposed energy savings represent a 23 percent increase compared to the energy savings achieved in previous three-year plans (2010-2012). The Department's review and approval of the Three-Year Plans marks another important step in helping the Commonwealth address vital energy issues.



For average residential program participants (for example, those who take advantage of rebates for energy efficient lighting, insulation, and other programs) the monthly electric bill may decrease by as much as $24, and the monthly gas bill may decrease by up to $39. The average residential electric customer who does not make use of energy efficiency programs will see an approximate $2 increase in his or her monthly bill, and an average gas heating residential customer will see an approximate $4 monthly bill increase.

Historically, Massachusetts has had among the highest energy costs in the country. The Commonwealth is at the end of the energy pipeline and dependent on fuel from other parts of the United States as well as from foreign countries, including Canada, Colombia, and countries in the Middle East. Of the more than 20 billion dollars that Massachusetts citizens pay for energy of all kinds every year, over 80 percent leaves Massachusetts. In addition to this lost economic opportunity, energy prices have been and will continue to be extremely volatile. Finally, our use

of fossil fuels – natural gas, coal, and oil – produces both local air pollution, such as smog, particulates and nitrous oxide, all of which cause significant health impacts; and global climate change pollutants, such as carbon dioxide and methane.

In the last six years, Governor Patrick has signed several energy-related statutes into law, including the Green Communities Act, and directed executive agencies to aggressively address these energy challenges. These efforts have significantly advanced the Commonwealth's commitment to the development of energy efficiency, demand response, distributed generation, and renewable resources. In fact, the actions of the Patrick-Murray administration have catapulted Massachusetts to a national leadership role in clean energy. For example, for the second year in a row the American Council for an Energy-Efficient Economy (ACEEE) has ranked Massachusetts the number one state for energy efficiency policies and programs.

As one of several energy agencies, the Department has undertaken numerous initiatives to advance these goals, including removing financial disincentives to the use of demand resources through decoupling, implementing progressive net metering rules, and updating our energy efficiency guidelines. Of these clean energy policies, energy efficiency has had the most significant impact and benefits to date. The energy efficiency that will be delivered through the Three-Year Plans is cost-effective and less expensive than energy supply. Consequently, energy efficiency programs enable Massachusetts ratepayers to prudently manage energy consumption, reduce energy bills, and reduce volatility in and help stabilize energy costs. In addition, energy efficiency programs create jobs that cannot be outsourced to other areas of the globe. A recent report commissioned by the Massachusetts Clean Energy Center finds that jobs in the energy efficiency sector grew almost ten percent between 2011 and 2012, to over 40,000. Massachusetts Clean Energy Center, 2012 Massachusetts Clean Energy Industry Report (2012).

Energy efficiency is also vital to the Commonwealth's efforts to meet the aggressive greenhouse gas emission targets established in the Global Warming Solutions Act and the Massachusetts Clean Energy and Climate Plan for 2020. The 2020 Climate Plan estimates that 28 percent of the required 2020 emissions reductions must be met through energy efficiency, and energy efficiency will continue to be instrumental in achieving the ambitious goal of reducing statewide emissions by 80 percent below 1990 levels by 2050. The savings goals in the Three-Year Plans approved in this order fully support the achievement of the emissions reduction requirements of the Global Warming Solutions Act. The energy efficiency programs in the Three-Year Plans are expected to reduce statewide carbon dioxide emissions by roughly 25.6 million tons during the lifetime of the installed measures. This reduction is comparable, for that same time period, to the environmental benefits achieved by eliminating the energy use of approximately 100,000 homes, or of taking about 400,000 cars off the road.

The Three-Year Plans were developed through a comprehensive and collaborative effort involving the Energy Efficiency Advisory Council. The Council, chaired by the Commissioner of the Department of Energy Resources, represents the full spectrum of stakeholder perspectives, and coordinates with the Program Administrators to design and monitor the energy efficiency programs.

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

- We find that, based on the projected benefits and costs, each proposed energy efficiency program is cost-effective.

- With certain exceptions, we approve the performance incentive mechanism proposed by the Program Administrators.

- We direct the Program Administrators to convene a working group to develop strategies to address barriers to increasing energy efficiency in the residential sector, including landlord/tenant barriers, pre-weatherization requirements, and the cost of participating in energy efficiency programs.

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 available cost-effective energy efficiency opportunities in the Commonwealth.

I. INTRODUCTION

On November 2, 2012, Bay State Gas Company, d/b/a Columbia Gas of Massachusetts ("Columbia Gas"); The Berkshire Gas Company ("Berkshire Gas"); Blackstone Gas Company ("Blackstone Gas"); Boston Gas Company and Colonial Gas Company, each d/b/a National Grid ("National Grid (gas)"); Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil (gas)"); NSTAR Gas Company ("NSTAR Gas"); New England Gas Company ("NEGC"); Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid ("National Grid (electric)"); Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil (electric)"); Western Massachusetts Electric Company ("WMECo"); NSTAR Electric Company ("NSTAR Electric"); 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") (together, "Program Administrators") each filed a three-year energy efficiency plan with the Department of Public Utilities ("Department") for calendar years 2013 through 2015 ("Three-Year Plans").[1] 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);

[1] Pursuant to G.L. c. 25, § 21(d)(1) and An Act Relative to Green Communities, Acts of 2008, chapter 169 ("Green Communities Act"), the Three-Year Plans were to be filed on or before October 31, 2012. The filing of the Three-Year Plans, however, was delayed until November 2, 2012 because of disruptions caused by Hurricane Sandy. Letter from Program Administrators to Department at 1 (October 31, 2012).

D.P.U. 08-50-C (2011); D.P.U. 08-50-D (October 19, 2012) ("Guidelines").[2] Each Program Administrator seeks approval of: (1) its Three-Year Plan, including proposed programs and program budgets; and (2) a proposed performance incentive mechanism.[3] Pursuant to An Act Relative to Competitively Priced Electricity in the Commonwealth, St. 2012, c. 209 ("Energy Act of 2012"), the Program Administrators have also incorporated their Residential Conservation Services ("RCS") filings in their respective Three-Year Plans.

Pursuant to notice duly issued, the Department held a joint public hearing[4] on December 5, 2012. The Department received comments from the City of Malden; Partners HealthCare; A Better City and the Commercial Real Estate Working Group of the Boston Green Ribbon Commission; the Boston Workers Benefit Council; Eastern Service Workers Association; Greentek Home Performance Contractors; the Greater Boston Real Estate Board; Alliance to Develop Power; 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 14-73).

On October 24, 2012, the Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention pursuant to G.L. c. 12, § 11E in each

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2 On January 31, 2013, the Department issued revisions to the Guidelines in Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines, D.P.U. 11-120-A, Phase II (January 31, 2013). Unless otherwise specified, any reference to Guidelines includes the revisions to the Guidelines.

3 The Department docketed these matters as follows: (1) D.P.U. 12-100 for Columbia Gas; (2) D.P.U. 12-101 for Berkshire Gas; (3) D.P.U. 12-102 for Blackstone Gas; (4) D.P.U. 12-103 for National Grid (gas); (5) D.P.U. 12-104 for Unitil (gas); (6) D.P.U. 12-105 for NSTAR Gas; (7) D.P.U. 12-106 for NEGC; (8) D.P.U. 12-107 for Compact; (9) D.P.U. 12-108 for Unitil (electric); (10) D.P.U. 12-109 for National Grid (electric); (11) D.P.U. 12-110 for NSTAR Electric; and (12) D.P.U. 12-111 for WMECo.

4 The Department held one joint public hearing on all of the Program Administrators' filings. These cases, however, are not consolidated and remain separate proceedings.

Three-Year Plan docket. On November 8, 2012, the Department granted the petitions to intervene of the Massachusetts Department of Energy Resources ("DOER"), Conservation Law Foundation ("CLF"), and LEAN as full parties in each Three-Year Plan docket.[5] On November 8, 2012, the Department granted the petition to intervene of Environment Northeast ("ENE") as a full party in D.P.U. 12-100, D.P.U. 12-103, D.P.U. 12-105, D.P.U. 12-109, and D.P.U. 12-110.[6] On November 9, 2012, the Department granted the petition to intervene as a full party of Alliance to Develop Power; Alternatives for Community & Environment, Inc.; Chelsea Collaborative, Inc.; Clean Water Fund; Community Labor United, Inc.; and Massachusetts Energy Consumers Alliance, jointly as the Green Justice Coalition ("GJC"), in each Three-Year Plan docket. D.P.U. 12-100 through D.P.U. 12-111, Stamp-Approvals (November 9, 2012). On November 21, 2012, the Department granted the petition to intervene of the Greater Boston Real

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5 Bay State Gas Company, d/b/a Columbia Gas of Massachusetts, D.P.U. 12-100, Stamp-Approval (November 8, 2012); The Berkshire Gas Company, D.P.U. 12-101, Stamp-Approval (November 8, 2012); Blackstone Gas Company, D.P.U. 12-102, Stamp-Approval (November 8, 2012); Boston Gas Company and Colonial Gas Company, each d/b/a National Grid, D.P.U. 12-103, Stamp-Approval (November 8, 2012); Fitchburg Gas and Electric Light Company, d/b/a Unitil (gas division), D.P.U. 12-104, Stamp-Approval (November 8, 2012); NSTAR Gas Company, D.P.U. 12-105, Stamp-Approval (November 8, 2012); New England Gas Company, D.P.U. 12-106, Stamp-Approval (November 8, 2012); 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, D.P.U. 12-107, Stamp-Approval (November 8, 2012); Fitchburg Gas and Electric Light Company, d/b/a Unitil (electric division), D.P.U. 12-108, Stamp-Approval (November 8, 2012); Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, D.P.U. 12-109, Stamp-Approval (November 8, 2012); NSTAR Electric Company, D.P.U. 12-110, Stamp-Approval (November 8, 2012); Western Massachusetts Electric Company, D.P.U. 12-111, Stamp-Approval (November 8, 2012).

6 D.P.U. 12-100, Stamp-Approval (November 8, 2012); D.P.U. 12-103, Stamp-Approval (November 8, 2012); D.P.U. 12-105, Stamp-Approval (November 8, 2012); D.P.U. 12-109, Stamp-Approval (November 8, 2012); and D.P.U. 12-110 Stamp-Approval (November 8, 2012).

Estate Board ("GBREB") as a full party in D.P.U. 12-109 and D.P.U. 12-110.[7] On November 8, 2012, the Department granted the petition of Associated Industries of Massachusetts ("AIM") for limited participant status in each Three-Year Plan docket. D.P.U. 12-100 through D.P.U. 12-111, Stamp-Approvals (November 8, 2012). On November 13, 2012, the Department granted the petition of The Energy Consortium ("TEC") for limited participant status in each Three-Year Plan docket. D.P.U. 12-100 through D.P.U. 12-111, Stamp-Approvals (November 13, 2012). Finally, on November 23, 2012, the Department granted the petition of Massachusetts Clean Energy Technology Center ("MassCEC") for limited participant status in each Three-Year Plan docket. D.P.U. 12-100 through D.P.U. 12-111, Hearing Officer Rulings at 4 (November 23, 2012).

The Department held nine days of evidentiary hearings on December 7, 2012, through December 19, 2012.[8] The Program Administrators (jointly), the Attorney General, DOER, AIM, CLF, GJC, and LEAN filed briefs in each Three-Year Plan docket. ENE filed a brief in D.P.U. 12-100, D.P.U. 12-103, D.P.U. 12-105, D.P.U. 12-109, and D.P.U. 12-110. GBREB filed a brief in D.P.U. 12-109 and D.P.U. 12-110.

The Program Administrators (jointly), the Attorney General, DOER, GJC, and LEAN filed reply briefs in each Three-Year Plan docket. ENE filed a reply brief in D.P.U. 12-100, D.P.U. 12-103, D.P.U. 12-105, D.P.U. 12-109, and D.P.U. 12-110. The evidentiary records for D.P.U. 12-100 through D.P.U. 12-111 together contain approximately 2,750 exhibits and 154 responses to record requests, plus all supplemental responses.

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7 D.P.U. 12-109, Stamp-Approval (November 8, 2012); and D.P.U. 12-110 Stamp-Approval (November 8, 2012).

8 The Department held joint evidentiary hearings on December 7, 10, 11, 12, 13, 14, 17, 18, and 19, 2012, on common issues. The Department also held a company-specific evidentiary hearing on December 18, 2012, for Blackstone Gas.

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. In order to accomplish this goal, the Green Communities Act requires all Program Administrators 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(b)(1). The Green Communities Act also establishes an Energy Efficiency Advisory Council ("Council")[9] and directs Program Administrators, in coordination with the Council, to prepare a three-year, statewide energy efficiency plan ("Statewide Plan"). G.L. c. 25, § 21(b)(1).

B. Energy Efficiency Advisory Council and Statewide Plan

Pursuant to the Green Communities Act, the Statewide Plan submitted to the Council must include the following components: (1) an assessment of lifetime cost, reliability, and magnitude of the resources that are cost-effective or less expensive than supply; (2) the amount

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[9] The Council's eleven voting members represent the following interests: (1) residential consumers; (2) the low-income weatherization and fuel assistance program network; (3) the environmental community; (4) businesses, including large commercial and industrial end-users; (5) the manufacturing industry; (6) energy efficiency experts; (7) organized labor; (8) the Commonwealth of Massachusetts Department of Environmental Protection; (9) the Attorney General; (10) the Commonwealth of Massachusetts Executive Office of Housing and Economic Development; and (11) DOER. G.L. c. 25, § 22(a). The Council membership also includes one non-voting member representing each Program Administrator, one from the heating and oil industry, and one from energy efficiency businesses. G.L. c. 25, § 22(a). Pursuant to the Energy Act of 2012, the Council will add additional members representing: the Massachusetts Non-profit Network; a city or town in the Commonwealth; the Massachusetts Association of Realtors; and a representative of small businesses that perform energy efficiency services, are located in the Commonwealth, and employ fewer than ten persons. Energy Act of 2012, Section 11 (August 3, 2012).

of resources that are proposed to be acquired under the plan; (3) 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; (4) program descriptions; (5) a proposed mechanism that provides distribution companies with performance incentives based on their success in meeting or exceeding the plan's goals; (6) the budget needed to support the programs; (7) a fully reconciling funding mechanism; (8) the estimated peak-load reduction and any estimated economic benefits for such projects, including job retention, job growth, or economic development; and (9) data reflecting the percentage 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).

Programs contained in the Statewide Plan may include, but are not limited to, the following: (1) efficiency and load management programs; (2) demand response programs; (3) programs for research, development, and commercialization of products or processes that are more energy-efficient than those generally available; (4) programs for the development of markets for such products and processes, including recommendations for new appliance and product efficiency standards; (5) 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 with building energy codes programs and processes, or those regarding the development of high

performance or sustainable buildings that exceed code; (6) programs for the design, manufacture, commercialization, and purchase of energy-efficient appliances and heating, air conditioning, and lighting devices; (7) programs for planning and evaluation; (8) programs providing commercial, industrial, and institutional customers with greater flexibility and control over demand-side investments funded by the programs at their facilities; and (9) 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 30th; 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, the Program Administrators may change the Statewide Plan to reflect the Council's input. G.L. c. 25, § 21(c).

C. Department Review of Three-Year Plans

1. Introduction

In conjunction with the Statewide Plan, described above, each Program Administrator must also develop and file with the Department individual Three-Year Plans, which include company-specific information. G.L. c. 25, § 21(d)(1). After the Council process, the Program Administrators must, by October 31st, 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). Once the Three-Year Plans have been filed, the Department is required 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,[10] approve, modify, or reject and require the resubmission of the Three-Year Plans. G.L. c. 25, § 21(d)(2).

[10] Pursuant to the Green Communities Act, the Department's 90-day review period begins on the date of filing. G.L. c. 25, § 21(d)(2).

2. All Cost-Effective or Less Expensive Than Supply

Pursuant to the Green Communities Act, in approving the Three-Year Plans, the Department must ensure that the Program Administrators have identified and will capture all energy efficiency and demand reduction resources that are cost-effective or less expensive than supply. G.L. c. 25, § 21(d)(2). To this end, the Department must make the determinations discussed in the sections below.

a. Program Cost-Effectiveness

The Department must screen the energy efficiency programs for cost-effectiveness to ensure that the programs are designed to obtain energy savings and system benefits with a value greater than program costs. G.L. c. 25, § 21(b)(3). The Department has reaffirmed that the Total Resource Cost ("TRC") test is the appropriate test for evaluating the cost-effectiveness of energy efficiency programs.[11] D.P.U. 08-50-A at 14; Guidelines § 3.4.3.

b. 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).

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[11] 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-A, at 15. Because the TRC test includes the avoided cost of supply as one of the most significant program benefits, this test satisfies the Green Communities Act's requirement that, among other things, energy efficiency programs be less expensive than supply. D.P.U. 08-50-A at 14.

c. Program Funding

i. Funding Sources

Consistent with the Green Communities Act, the Department's energy efficiency Guidelines specify that electric Program Administrators fund energy efficiency plan implementation from the following sources: (1) the mandatory $0.0025 per kilowatt-hour ("kWh") system benefits charge ("SBC"); (2) revenues from the forward capacity market ("FCM") administered by ISO New England Inc. ("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; see also G.L. c. 25, § 19(a). If sufficient funding to meet the Green Communities 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.[12] G.L. c. 25, § 19(a); Guidelines § 3.2.1.6.2.

The Department's Guidelines also specify that gas Program Administrators fund energy efficiency plan implementation through an EES and any other funding revenue sources that may be available. Guidelines § 3.2.2; see also G.L. c. 25, § 19(b). Although not explicitly required by the Green Communities Act, as part of our approval of a gas EES, the Department must also consider rate and bill impacts on consumers. D.P.U. 08-50-A at 56-60; D.P.U. 08-50-B at 18-19.

[12] The Guidelines require that both electric and gas Program Administrators' Three-Year Plans 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, 3.2.2.2.

ii. Funding Allocation

Under the Green Communities Act, the Department must ensure that energy efficiency funds are allocated to all sectors[13] 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 electric energy efficiency programs and 20 percent of the funds for gas energy efficiency programs. G.L. c. 25, § 19(c).

iii. 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 Plans. G.L. c. 25, § 21(d)(2). This mechanism -- the EES -- is calculated as prescribed in the Guidelines, and for electric Program Administrators is collected through the energy efficiency reconciliation factor ("EERF"). Guidelines §§ 2(9), 3.2.1.6. For gas Program Administrators, the EES is calculated as prescribed in the Guidelines and collected through the local distribution adjustment clause ("LDAC") tariff in accordance with established Department practice. Guidelines §§ 2(9), 3.2.2.

III. ENERGY EFFICIENCY ADVISORY COUNCIL RESOLUTIONS

A. Introduction

The Green Communities Act requires the Council to work collaboratively with the Program Administrators to develop program plans and budgets. G.L. c. 25, § 22(b). In addition, approval of efficiency and demand resource plans and budgets requires a two-thirds majority vote of the Council. G.L. c. 25, § 22(b).

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[13] 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.

The Council has presented, voted on, and issued several resolutions or documents related to the development of the energy efficiency Statewide Plan and Three-Year Plans. These materials include: (1) a "Council's Priorities for 2012" resolution ("Priorities Resolution"); (2) a "Sense of Council" document regarding the Three-Year Plans ("Sense of Council Document"); (3) an "Action Plan" ("Action Plan"); (4) a "Draft 2013-2015 Joint Statewide Three-Year Electric and Gas Energy Efficiency Plan" resolution ("Draft Plan Resolution"); (5) an "Electric and Gas Term Sheets for the 2013-2015 Three-Year Energy Efficiency Investment Plan" resolution ("Term Sheets Resolution"); and (6) a resolution approving and recommending the Program Administrators' Three-Year Statewide Plan ("Approval Resolution"). Each Council resolution is described below.

B. Priorities Resolution

On February 14, 2012, the Council approved a resolution describing its priorities for program planning, analysis, implementation, and evaluation in connection with the instant Three-Year Plans (Exh. Comm-1, at 38). These priorities include: (1) setting aggressive and achievable targets for the Three-Year Plans; (2) continuing to improve the cost-efficiency of program delivery;[14] (3) providing support on key program developments and implementation needs; (4) defining and encouraging better data analytics and access; and (5) identifying best practices (Exh. Comm-1, at 39-41).

C. Sense of Council Document

On June 12, 2012, the Council issued a Sense of Council Document discussing its expectations for what the Program Administrators should include and specifically address in the draft Statewide Plan (Exh. Comm-1, at 41). In the Sense of Council Document, the Council

[14] Cost efficiency of program delivery requires looking at the amount of savings received for each program dollar spent (Tr. 5, at 938-939).

stated that the Program Administrators should reassess the savings goals and "determine whether the [Program Administrators] can increase savings goals for both gas and electric program portfolios," while being mindful of additional factors including the all-cost-effective mandate, cost drivers, and bill impacts (Exh. Comm-1, at 41-42). The Sense of Council Document also requested that the Program Administrators include in the draft Statewide Plan a complete analysis of the costs and cost drivers, and detailed information on innovation in pursuing aggressive and sustainable goals (Exh. Comm-1, at 42). Finally, the Council requested that the Program Administrators provide an action plan to explain how best practices were reviewed and modeled for each sector and related key programs (Exh. Comm-1, at 43).

D. Action Plan

On June 18, 2012, the Council issued a document that described twelve specific requests of its voting members and directed the Program Administrators to address the requests by formulating an Action Plan for each request (Exh. Comm-1, at 44). The requests were: (1) enhanced fuel integration through program delivery in the Commercial and Industrial ("C&I") sector; (2) community mobilization models; (3) hard to reach and lower income strategies; (4) enhancements to the multi-family program; (5) implementation of pre-weatherization measures in residential services; (6) a consistent and more comprehensive approach to dealing with municipalities; (7) targeted strategies for the midsized commercial market; (8) targeted strategies for commercial real estate; (9) targeted strategies for large and small healthcare facilities; (10) statewide data management and statewide data reporting; (11) a roadmap of organizational structure and staffing resources, including systems for best practices review, customer experience, and satisfaction in each sector; and (12) increased statewide marketing and consistency in branding and messaging (Exh. Comm-1, at 44-53).

E. Draft Plan Resolution

On July 23, 2012, the Council approved a resolution memorializing its review of the draft Statewide Plan submitted by the Program Administrators to the Council on July 2, 2012 (Exh. Comm-1, at 56). The Draft Plan Resolution described the draft Statewide Plan as "well written, responsive to input of the [Council] and its consultants, reflective of stakeholder feedback, and worthy of Massachusetts' nation-leading status" (Exh. Comm-1, at 56). The Council provided feedback addressing ten specific topics: (1) energy savings goals; (2) benefits; (3) deeper savings; (4) program costs; (5) bill impacts; (6) participation; (7) statewide database; (8) statewide marketing; (9) inconsistencies and variations across Program Administrators; and (10) performance incentives (Exh. Comm-1, at 57-62).

F. Term Sheets Resolution

On November 5, 2012, the Council approved a resolution stating its support for the proposed electric and gas term sheets ("Term Sheets") (Exh. Comm-4). The Term Sheets provide a summary of the energy savings goals, program budgets and costs, estimated benefits, and performance incentives found in the Statewide Plan (Exh. Comm-4). In support of the Term Sheets, the Council confirmed "that the energy savings goals, program budgets, and estimated benefits proposed in the term sheets are aligned with the [Green Communities Act's] requirement of all cost-effective energy efficiency and that they represent the best opportunity to maximize the benefits of energy efficiency in the Commonwealth" (Exh. Comm-4). The Council further stated that the performance incentive mechanism contained in the Term Sheets is consistent with the Guidelines, "including the performance incentive pool, performance incentive levels, and performance incentive components" (Exh. Comm-4).

G. Approval Resolution

On November 13, 2012, the Council approved a resolution memorializing its review of the Program Administrators' Statewide Plan filed with the Department on November 2, 2012 (Exh. Comm-5). In its Approval Resolution, the Council stated that the Statewide Plan is "consistent with the goals and requirements of the [Green Communities Act]" and, thus, should be approved by the Department (Exh. Comm-5, at 1). After commenting on specific sections of the Statewide Plan, the Council also requested that the Department approve the individual Three-Year Plans "to the degree that the [Three-Year] Plans are fully consistent with the Statewide Plan" (Exh. Comm-5, at 3).

H. Conclusion

As required by the Green Communities Act, the Council has worked closely with the Program Administrators to develop the energy efficiency program plans and budgets found in the current Statewide Plan. G.L. c. 25, § 22(b). Throughout this collaborative process, the Council has issued numerous resolutions and documents regarding its recommendations concerning various elements of the Statewide Plan and individual Program Administrators' Three-Year Plans. In its final Approval Resolution, passed by a unanimous vote,[15] the Council approved the Statewide Plan and the individual Program Administrators' Three-Year Plans to the extent that they are consistent with the Statewide Plan (Exh. Comm-5).

IV. PROGRAM SAVINGS

A. Introduction

Program savings represent the electricity, natural gas, heating oil, and other resources saved as a result of the deployment of energy efficiency. The Department considers program

[15] The members of the Council voted in favor of the Approval Resolution; ten in favor, zero against, and one absent (Exh. Comm-5).

savings in order to evaluate the degree to which the proposed Three-Year Plans achieve their stated goal of reducing electricity and gas consumption. Our review below examines: (1) the energy savings that the Three-Year Plans are expected to achieve (i.e., program savings goals); and (2) the subsequent evaluation, measurement, and verification ("EM&V") of the energy savings. Both issues are relevant to our fundamental task of determining whether the Three-Year Plans will provide for the acquisition of all available cost-effective energy efficiency. See G.L. c. 25, §§ 19(a), 19(b), 21(b)(1).

B. Program Savings Goals

1. Introduction

The Green Communities Act requires each Program Administrator's Three-Year Plan to provide for the acquisition of all available cost-effective energy efficiency resources. G.L. c. 25, §§ 19(a), 19(b), 21(b)(1); see also Guidelines § 3.4.7. The Program Administrators must work with the Council to prepare a Statewide Plan designed to achieve the all cost-effective energy efficiency mandate. G.L. c. 25, § 21(b)(1). Then, the Department must ensure that each Program Administrator's individual Three-Year Plan provides for the acquisition of all available cost-effective energy efficiency and demand reduction resources; that is, a Program Administrator must demonstrate that it will 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).

2. Program Administrators' Proposal

a. Development of Savings Goals

The Program Administrators engaged in a collaborative and iterative process at the Council level to develop the savings goals contained in the Statewide Plan and the Three-Year Plans (Exh. Comm-1, at 103). The process began when the Program Administrators submitted a

savings goal proposal to the Council in April 2012 (Exh. Comm-1, at 16, 73). The Program Administrators then developed a more detailed, revised savings goal proposal based on input from the Council and submitted a draft Statewide Plan to the Council in July 2012 and, again, in September 2012 (Exh. Comm-1, at 16; Tr. 8, 1587-1591). Following the submission of the September 2012 draft Statewide Plan, the Program Administrators, DOER, the Attorney General, and the Council came to a negotiated agreement in principle that included the program savings goals set forth in the gas and electric Term Sheets (Exhs. Comm-1, at 86; Comm-1, App. R). The Term Sheets approved as part of the Term Sheets Resolution included statewide aggregate goals for gas and electric as well as individual savings goals for each of the Program Administrators, as contained in the Three-Year Plans (Exh. Comm-1, App. R).[16] The aggregate statewide savings goals contained in the Statewide Plan for both electric and gas are slightly higher than the goals in the Term Sheets (Exh. Comm-1, App. R).[17]

The Program Administrators state that they developed their individual savings goals in consideration of the following factors: (1) the language of the Green Communities Act, which

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[16] The savings goals included in the Statewide Plan are a compilation of the savings goals included in each Program Administrator's Three-Year Plan.

[17] In December 2012, the Program Administrators submitted updated savings goals to correct errors identified during the course of these proceedings. D.P.U. 12-100, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-101, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-103, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-104, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-105, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-106, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-107, Supplemental Filing, Cover Letter at 1 (December 20, 2012); D.P.U. 12-108, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-109, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-110, Supplemental Filings, Cover Letters at 1 (December 21, 2012 & December 31, 2012); D.P.U. 12-111, Supplemental Filings, Cover Letters at 1 (December 21, 2012 & December 31, 2012).

requires the acquisition of all available cost-effective energy efficiency; (2) the need for long-term program sustainability; (3) the directives, priorities, and recommendations of the Council; (4) the Department's directives in prior energy efficiency orders (i.e., the 2010 through 2012 three-year plan Orders; D.P.U. 08-50-A; D.P.U. 08-50-B); (5) customer bill impacts; (6) multiple assessments of all available cost-effective electric and gas energy efficiency; (7) multiple studies and analyses of the technical, achievable, and economic potential of energy efficiency; (8) recent EM&V study results; (9) market barriers; and (10) the Program Administrators' actual experience implementing energy efficiency programs, including in the prior three-year term (Exhs. Comm-1, at 80-89; DPU-Comm-3-11; Tr. 3, at 592-595).

b. Proposed Savings Goals

The aggregate gas and electric statewide savings goals,[18] as well as each Program Administrator's individual savings goal, expressed as a percentage of sales, are shown in Tables 1 and 2 below.

Table 1: Individual Electric Program Administrator Savings Goals (as a percentage of sales)[19]

	2013	2014	2015	Total 2013-2015
National Grid (electric)	2.53%	2.59%	2.64%	2.59%
NSTAR Electric	2.51%	2.57%	2.61%	2.56%
WMECo	2.58%	2.70%	2.82%	2.70%
Unitil (electric)	1.91%	1.95%	1.96%	1.94%
Compact	2.08%	1.92%	1.92%	1.97%
Aggregate Statewide Goal	2.50%	2.55%	2.60%	2.55%

[18] The gas statewide savings goal includes the individual savings goals of each gas Program Administrator except Blackstone Gas (Exhs. Comm-1, at 274; Comm-4). In addition to savings goals, other issues related to Blackstone Gas are addressed in Section IX, below. For purposes of Sections IV through VIII of this Order, when the Department refers to "Program Administrators," unless otherwise specified, we do not include Blackstone Gas.

[19] Sources: Exh. Comm-40; RR-DPU-1, Atts.

Table 2: Individual Gas Program Administrator Savings Goals (as a percentage of sales)[20]

	2013	2014	2015	Total 2013-2015
National Grid (gas)	1.07%	1.18%	1.19%	1.15%
NSTAR Gas	1.07%	1.13%	1.14%	1.13%
Columbia Gas	1.21%	1.22%	1.23%	1.22%
Unitil (gas)	0.70%	0.77%	0.85%	0.77%
Berkshire Gas	0.70%	0.76%	0.81%	0.76%
NEGC	0.83%	0.84%	0.85%	0.84%
Aggregate Statewide Goal[21]	1.08%	1.17%	1.19%	1.14%

As shown in Table 1, National Grid (electric), NSTAR Electric, and WMECo have adopted individual savings goals in excess of the statewide electric goals, while Unitil (electric) and the Compact have adopted savings goals below the statewide aggregate goals (Exh. Comm-1, App. R at 1, 4). As shown in Table 2, National Grid (gas), NSTAR Gas, and Columbia Gas have adopted individual savings goals in excess of the statewide gas goals, while Unitil (gas), Berkshire Gas, and NEGC have adopted savings goals below the statewide aggregate goals (Exhs. Comm-1, App. R at 5, 8-9; DPU-Comm-8-27 (CMA)).

The Program Administrators with savings goals below the statewide aggregate goals state that multiple factors affect the quantity of savings available in their service territories and the incremental cost of achieving additional savings, including: (1) a smaller C&I customer base; (2) demographics; (3) low population density; (4) economic conditions; (5) the mix of building types; and (6) in the case of the Compact, a unique governance structure (Exhs. Comm-1, at 105-106 & App. H; CLC-12; CLC-13; Tr. 5, at 1045-1047, 1072-1080). The Program Administrators with an aggregate three-year savings goal of greater than 20 percent below the statewide three-year aggregate goal will conduct a study, either jointly or individually, during the

[20] Sources: Exh. Comm-40; RR-DPU-1, Atts.

[21] The aggregate statewide goal does not include Blackstone Gas (see n.18, above).

upcoming three-year term to document the penetration of energy efficiency within its service territory and the remaining cost-effective energy efficiency opportunities available (Exh. Comm-1, App. R). [22]

The savings goal of each Program Administrator, as contained in the Term Sheets, was supported by the Council (Exhs. Comm-1, App. R; Comm-4). The Council determined that the Program Administrators' proposed savings goals: (1) satisfy the mandate of the Green Communities Act to capture all available cost-effective energy efficiency; and (2) support the greenhouse gas emissions reductions that will be required for the Commonwealth to comply with the Massachusetts Clean Energy and Climate Plan for 2020 ("2020 Climate Plan"). (Exhs. Comm-1, App. R at 5-6; Comm-4). [23]

c. Barriers to Achieving More Energy Efficiency Resources

i. Introduction

The Program Administrators have identified several barriers that they state must be addressed in order to fully meet the savings goals of the Statewide Plan (Exh. Comm-1, at 87; Tr. 5, at 1050-1052; Tr. 6, at 1206-1207). The barriers limit both the supply of and consumer demand for energy efficiency (Tr. 3, at 488-489; Tr. 5, at 1060-1064). The Program

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[22] The following Program Administrators have aggregate three-year savings goals greater than 20 percent below the aggregate statewide goal: Berkshire Gas; Unitil (gas); NEGC; Unitil (electric); and the Compact (Exh. Comm-1, App. R). The electric Term Sheet exempts the Compact from the study requirement because the Compact is a municipal aggregator (Exh. Comm-1, App. R).

[23] As discussed more fully below, the Global Warming Solutions Act ("GWSA"), G.L. c. 21N, establishes a number of requirements for reducing greenhouse gas emissions in the Commonwealth, including an emissions reduction target for 2020. G.L. c. 21N, §§ 3(b), 4(a). The 2020 Climate Plan includes a portfolio of policies intended to enable the Commonwealth to achieve the 2020 emissions reduction target. Ian A. Bowles, Executive Office of Energy and Environmental Affairs, Massachusetts Clean Energy and Climate Plan for 2020 (December 29, 2010), available at http://www.mass.gov/eea/docs/eea/energy/2020-clean-energy-plan.pdf.

Administrators identify the following supply barriers: (1) limited availability of products to satisfy customer demand; and (2) an insufficient workforce to deliver energy efficiency products (Exh. Comm-1, at 88; Tr. 5, at 1050-1055). The Program Administrators identify the following barriers as limiting customer demand for energy efficiency: (1) lack of customer awareness of energy efficiency programs; (2) the cost of participating in energy efficiency programs; and (3) customer aversion to implementing technologies viewed as unproven (Exh. Comm-1, at 88-89).

To address the barriers identified above, the Program Administrators have planned a series of enhancements to the core initiatives to be developed and implemented over the three-year term (Exh. Comm-1, at 119-120). The Program Administrators state that they will collaborate on designing and implementing these enhancements through several management committees including: (1) the residential management committee; (2) the C&I management committee; (3) the evaluation management committee; (4) the low-income best-practices committee; and (5) the Massachusetts technical assessment committee (Exh. Comm-1, at 24, 78-79; Tr. 5, at 997-998, 1033-1034; Tr. 3, at 562).[24] The management committees meet regularly to: (1) facilitate consistent program implementation statewide; (2) share best practices; (3) assess new technologies; (4) develop and implement new measures; and (5) plan and oversee EM&V activities (Exh. Comm-1, at 78-79; Tr. 3, at 589).

ii. Commercial and Industrial Sector

The Program Administrators propose a range of activities and program enhancements that are intended to increase the demand for energy efficiency services in the C&I sector

[24] Each management committee includes representatives from all Program Administrators and the Council's consultants. Individual Council members may choose to participate in issues that interest them (Tr. 5, at 1034-1035).

(Exh. Comm-1, at 196-198, 216-222). First, to overcome the barrier of customer awareness, the Program Administrators state that they will continue to conduct public education and marketing campaigns (Exh. Comm-1, at 88). Second, in order to reach additional C&I customers, such as healthcare facilities, commercial office spaces, grocery stores, water and wastewater facilities, and municipal buildings, the Program Administrators plan to use market segmentation, which involves breaking down larger customer classes into segments with similar energy infrastructure and technologies (Exh. Comm-1, at 16; Tr. 4, at 700-702). By targeting specific facilities within these sectors, the Program Administrators aim to increase customer awareness and develop market-segment specific packages of energy efficiency measures (Exh. Comm-1, at 16; Tr. 6, at 1288-1292).

To address the barrier of affordability, the Program Administrators plan to continue the financing options available to participants in the C&I Direct Install core initiative (Exh. Comm-1, at 96-97; Tr. 6, at 1209-1210, 1231-1232). In addition, the Program Administrators plan to implement enhancements to the C&I Retrofit program intended to increase the financial tools available to small- and medium-sized C&I customers in order to expand the use of financing; the details of such enhancements will be developed during the upcoming term (Exh. Comm-1, at 197-199). Finally, the Program Administrators plan to expand the Main Streets initiative, which targets small businesses within a limited geographical area and provides a 100 percent incentive for a limited set of measures (Tr. 3, at 561-563; Tr. 6, at 1229-1231).

To address landlord/tenant barriers[25] in the C&I sector, the Program Administrators plan to focus on program marketing and outreach to both C&I landlords and property-management organizations (Exh. Comm-1, at 21; Tr. 5, at 965-967; Tr. 6, at 1284-1286).

With respect to implementing new technologies, the Program Administrators state that they currently work through the Massachusetts technical assessment committee to fully review new technologies prior to offering them through the energy efficiency programs and will continue to do so during the upcoming term (Tr. 3, at 589-590). The Program Administrators state that this process allows them to offer only fully developed technologies that work properly and will not be rejected by customers (Tr. 6, at 1135, 1247-1248). By fully vetting new technologies, the Program Administrators hope to avoid situations in which customers are not satisfied with early versions of a technology (see Tr. 6, at 1247-1248).

iii. Residential Sector

The Program Administrators state that there tends to be a greater concentration of residential barriers in urban areas (Exh. Comm-1, at 235-236). These barriers are associated with pre-weatherization,[26] income limitations, language limitations, and the landlord/tenant barrier (Exh. Comm-1, at 235-236).

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25 Landlords, who are more likely to either invest in or approve many energy efficiency measures, often do not benefit directly from those investments, as energy costs are either paid directly by the tenant or passed on to the tenant through their rent (Tr. 5, at 962). The Program Administrators state that this barrier is greater for the Multifamily Residential core initiative (for five or more unit residential structures) than for the Home Energy Services core initiative (for one-to-four unit homes) because smaller rental properties are more likely to have the owner living on the premises or have an owner who appreciates the benefits of participation in energy efficiency programs (Tr. 5, at 964-965). This barrier can be even greater in master-metered multifamily properties where the landlord pays the energy bills (Tr. 5, at 962-964).

26 Pre-weatherization barriers arise when health and safety conditions such as knob and tube wiring or improper venting are detected during an energy efficiency audit (Tr. 3, at 477-478). These issues are more prevalent in older housing stock and must be

The Program Administrators propose to address urban residential barriers through the new Efficient Neighborhoods+ initiative (Exh. Comm-1, at 171-173). The Program Administrators state that this initiative is intended to provide significant energy savings to customers who live in urban neighborhoods with older housing stock and a high proportion of low-to-moderate income households that are often financially limited in their ability to participate in energy efficiency programs (Exh. Comm-1, at 171-172). The Program Administrators state that the initiative will include an enhanced participant incentive structure to address affordability barriers in the targeted neighborhoods and also will include a limited pre-weatherization incentive, as discussed below (Exh. Comm-1, at 171-172). In addition, the Program Administrators intend to address issues related to serving renters as part of this initiative (Exh. Comm-1, at 171-172; Tr. 5, at 966-967). The Program Administrators state that they intend to: (1) define target neighborhoods and finalize design elements during the first quarter of 2013; (2) test the initiative during the summer of 2013; and (3) assess results and report to the Council in the first quarter of 2014 (Exh. Comm-1, at 173).

In addition to the Efficient Neighborhoods+ initiative, the Program Administrators state that they intend to address urban residential barriers during the upcoming term through community-based communication channels, including community-mobilization initiatives and increased partnerships with outside organizations (Exh. Comm-1, at 233-236). Through these program enhancements, the Program Administrators state that they hope to reach traditionally hard-to-reach communities, such as lower income communities and communities where a large percentage of the population are not native English speakers (Exh. Comm-1, at 171-173, 233-236).

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addressed prior to the installation of insulation or air-sealing measures (Exh. Comm-1, at 127-128; Tr. 3, at 477-478).

The Program Administrators also intend to address the landlord/tenant barrier in the residential sector through: (1) marketing and outreach to residential landlords and property management organizations; and (2) incentive packages aimed at multi-family properties (Exh. Comm-1, at 21, 27-28, 127; Tr. 5, at 965-967; Tr. 6, at 1284-1286). The Program Administrators state that the marketing and outreach efforts are ongoing and that the enhanced incentives should be available during the second quarter of 2014 (Exh. Comm-1, at 128, 136).

The Program Administrators state that any future action on a pre-weatherization incentive, outside of the Efficient Neighborhoods+ initiative, will be informed by an evaluation of a 2012 pilot program (Exh. Comm-1, at 127-128; Tr. 5, at 1032-1034).[27] Based on the evaluation results, the Program Administrators state that they intend to update the design of the pre-weatherization incentive in the first quarter of 2013, with expected implementation by June 2013 (Exh. Comm-1, at 49).

3. Positions of the Parties

a. Program Administrators

The Program Administrators argue that their Three-Year Plans provide for the acquisition of all available cost-effective energy efficiency, consistent with the requirements of the Green Communities Act, in light of bill impacts, cost efficiency, integrated program delivery, environmental benefits, and the need for sustainable program delivery (Program Administrator Brief at 12-13, 31, citing G.L. c. 25, § 21(b)(1); Exhs. Comm-1; DPU-Comm-3-11). The Program Administrators maintain that the savings goals in the

[27] In 2012, the Program Administrators conducted a pilot program in which they provided up to $1,000 in financing through the HEAT loan program as well as a customer incentive payment of up to $300 to address pre-weatherization barriers (Tr. 3, at 477-478; Tr. 5, at 1031-1032). The Program Administrators are in the process of evaluating the results of the pre-weatherization pilot (Tr. 5, at 1032-1034).

Statewide Plan were developed through a collaborative process with the Council that included consideration of numerous studies that assessed the scope and scale of available cost-effective energy efficiency (Program Administrator Brief at 13-15, citing Exh. Comm-1, at 81-82; Tr. 4, at 701-702). The Program Administrators contend that the resulting statewide savings goals are the highest in the nation for an integrated gas and electric energy efficiency effort (Program Administrator Brief at 15). In addition, the Program Administrators contend that the total savings goals in the gas and electric Three-Year Plans exceed the goals established by the Council (Program Administrator Brief at 7, n.5; Program Administrator Reply Brief at 3, citing Exhs. Comm-40; Comm-1, App. R; DPU-Comm-8-27 (CMA)). Noting the Council's diversity of interests, the Program Administrators argue that the Department should give significant weight to the Council's unanimous approval of the savings goals (Program Administrator Brief at 16). [28]

With respect to the Program Administrators' individual savings goals, the Program Administrators argue that each electric and gas Program Administrator has adopted savings goals that comply with the Green Communities Act and that appropriately take into account unique, service-territory specific conditions (Program Administrator Brief at 17). The Program Administrators maintain that Berkshire Gas, NEGC, Unitil (gas), Unitil (electric), and the Compact have savings goals below the statewide aggregate because their service territories are unique in terms of: (1) demographics; (2) building types; (3) income types; (4) fuel types; (5) population density; and (6) geographic location (Program Administrator Brief at 17-18, citing Exh. Comm-1, at 106). The Program Administrators claim that the factors noted above

[28] The Program Administrators contend that the Council unanimously approved the aggregate statewide electric and gas savings goals, as well as each individual Program Administrator's savings goal (Program Administrator Brief at 16, citing Exhs. Comm-4; Comm-5).

directly affect program costs and savings, which justify variations from the statewide savings goals (Program Administrator Brief at 18, citing Exh. Comm-1, at 106, App. H).

The Program Administrators argue that any increase in savings goals is neither warranted nor appropriate (Program Administrator Brief at 24). Specifically, the Program Administrators maintain that there are a number of reasons not to increase savings goals, including: (1) bill impacts; (2) quality of measure installation; (3) customer economics; (4) market conditions; (5) low natural gas prices; (6) landlord/renter barriers; (7) other market barriers; (8) equity concerns; (9) the need to provide sustainable programs; and (10) the need to accommodate new technologies over time (Program Administrator Brief at 24-25).

With respect to quality of installations, the Program Administrators claim that attempting to achieve greater savings risks a decline in the quality of vendors, as contractor training is expensive and time consuming (Program Administrator Brief at 25, citing Exh. GJC-Comm-1-13; Tr. 5, at 1054-1055, 1078; Tr. 3, at 466-470). The Program Administrators argue that to ensure the long-term sustainability of the programs, they must undertake slow and steady growth that allows contractors to build their workforces and ensures that contractors have the steady stream of work necessary to maintain staffing levels (Program Administrator Brief at 29, citing Tr. 5, at 1055-1056).

The Program Administrators argue that the ongoing recession is another limit to their ability to deliver greater energy savings, as most energy efficiency programs require customer financial contributions (Program Administrator Brief at 25-26, citing Tr. 5, at 1045-1046, 1069, 1079). In addition, the Program Administrators contend that other market conditions, such as the seasonality of construction, prevent additional energy efficiency savings (Program Administrator Brief at 26-27, citing Tr. 5, at 1071-1072).

The Program Administrators argue that the Department should not consider GJC's program planning and implementation recommendations because such consideration would improperly interfere with the Council process (Program Administrator Reply Brief at 26). The Program Administrators note that GJC already has raised most of these issues during the Council process where they were not adopted (Program Administrator Reply Brief at 26).

With respect to GJC's specific recommendations, the Program Administrators assert that the Department should reject the request to devote 25 percent of the total marketing budget to community-mobilization initiatives (Program Administrator Reply Brief at 30). The Program Administrators argue that they have demonstrated a significant commitment to working with community groups and plan to continue that work during the upcoming term (Program Administrator Reply Brief at 30-31, citing Tr. 5, at 1002). As to GJC's request that enhanced participant incentives be provided to low-to-moderate income consumers who earn between 60 and 120 percent of the state median income, the Program Administrators argue that GJC's proposed income range is of its own creation and is not consistent with any statutory or legal definition of low-to-moderate income consumers (Program Administrator Reply Brief at 27). Further, the Program Administrators argue that there is no evidence to suggest that the population in this income range is either over- or under-served by energy efficiency programs (Program Administrator Reply Brief at 27). In addition, the Program Administrators contend that their proposal under the Efficient Neighborhoods+ initiative to target specific, predetermined neighborhoods is superior to the GJC proposal in that there will be no additional requirements for income verification, which will minimize administrative costs, reduce data privacy concerns, and reduce customer inconvenience (Program Administrator Reply Brief at 27). The Program Administrators maintain that, contrary to GJC's assertions, they are strongly committed to the

Efficient Neighborhoods+ initiative and have a firm timeline for developing and implementing the initiative (Program Administrator Reply Brief at 27, citing Exh. Comm-1, at 171-173; Tr. 7, at 1411). The Program Administrators contend that they will continue to include GJC and other stakeholders in development of the Efficient Neighborhoods+ initiative but argue that the Department should not provide GJC or any other stakeholder with a unique or special role, as program design decisions should be ultimately left to the Program Administrators implementing the programs (Program Administrator Reply Brief at 27-28).

The Program Administrators argue that GJC's request that the Program Administrators be required to achieve greater oil and gas savings goals to comply with the GWSA and 2020 Climate Plan is another attempt to circumvent the Council process and disregards the Council's approval of the savings goals (Program Administrator Reply Brief at 29). The Program Administrators contend that the Green Communities Act, and not the GWSA, is the relevant statute governing energy efficiency but that, in any event, the savings targets approved by the Council fully support the emissions reductions envisioned in the 2020 Climate Plan (Program Administrator Reply Brief at 29, citing Exhs. Comm-4; Comm-5).

The Program Administrators further assert that it is misleading for GJC to suggest that they are under-serving one-to-four unit oil-heat homes (Program Administrators Reply Brief at 29). According to the Program Administrators, they provide fuel-blind services in accordance with the Residential Conservation Services statute, G.L. c. 164 App., §§ 2-1 through 2-10 ("RCS Statute") (Program Administrator Reply Brief at 30). The Program Administrators maintain that expanding the RCS program to additional customer segments (i.e., multifamily or non-residential) would risk cross-subsidization (Program Administrator Reply Brief at 29-30).

The Program Administrators acknowledge that landlord/tenant issues present a significant barrier to implementing energy efficiency programs (Program Administrator Brief at 27, citing Exh. GJC-Comm-1-1; Tr. 5, at 962-963). The Program Administrators claim, however, that they have devoted significant time and resources to addressing this barrier, including a significant focus on low-income multifamily housing (Program Administrator Brief at 27, citing Exhs. GJC-Comm-1-1; GJC-Comm-1-2; Tr. 5, at 969, 979, 998, 1005; Program Administrator Reply Brief at 31). Further, the Program Administrators argue that they have provided detailed evidence to support their plans to develop strategies to better serve renters, including through the Efficient Neighborhoods+ initiative and, therefore, the Department should not accept GJC's recommendations in this regard (Program Administrator Reply Brief at 31).

The Program Administrators also assert that they are committed to overcoming the pre-weatherization barrier (Program Administrator Brief at 27-28, citing Tr. 6, at 1208-1210). The Program Administrators oppose the GJC recommendation that a separate budget be dedicated to participant incentives for pre-weatherization, arguing that this measure is not based on any specific evidence and is premature in that it prejudges the outcome of the 2012 pilot program (Program Administrator Reply Brief at 31-32).

b. Attorney General

The Attorney General maintains that the savings goals of the Statewide Plan were negotiated by the Attorney General, the Program Administrators, and DOER, and were unanimously supported by the Council (Attorney General Brief at 4-5). The Attorney General argues that the savings goals and other core elements of the Term Sheets (i.e., budgets and performance incentives) represent the result of coordinated, collaborative, good faith negotiations between the Council and the Program Administrators, and that modifying any one

element would affect the integrity of the agreement (Attorney General Brief at 5, citing G.L. c. 25, § 21(b)(1)). The Attorney General argues, however, that although the Council approved the Statewide Plan, the Council did not approve each Program Administrator's individual Three-Year Plan, including savings goals, as the Program Administrators incorrectly assert (Attorney General Reply Brief at 2, citing Exh. Comm-5; Program Administrator Brief at 16). [29]

c. Department of Energy Resources

DOER argues that the Program Administrators' individual savings goals in the Three-Year Plans are consistent with the statewide savings goals endorsed by the Council (DOER Brief at 3, citing Exh. Comm-4; DOER Reply Brief at 8). DOER maintains that the Council and Program Administrators engaged in an iterative and collaborative process to develop ambitious savings goals that satisfy both the Green Communities Act's requirement to acquire all cost-effective energy efficiency and support the greenhouse gas emissions reduction requirements in the 2020 Climate Plan (DOER Brief at 5, 8, citing Exh. Comm-1, App. R at 1, 5). [30] In addition, DOER asserts that the gas and electric Term Sheets approved by the Council provide appropriate flexibility for Program Administrators with service territory-specific economic conditions that limit customer participation in energy efficiency to adjust their savings

[29] Instead, the Attorney General argues that, as set forth in the Term Sheets Resolution, the Council assumed that the savings goals in the individual Program Administrators' Three-Year Plans would be consistent with the statewide aggregate savings goals (Attorney General Brief at 4-5, citing Exh. Comm-4; Attorney General Reply Brief at 2-3, citing Exh. Comm-4).

[30] DOER asserts that the Council requested that the Program Administrators align their programs and savings goals with the 2020 Climate Plan and that, in response, the Program Administrators agreed to modifications that balanced aggressive savings targets with program sustainability and bill impacts (DOER Brief at 9, 10, citing Tr. 5, at 930-931, 936).

goals, while simultaneously maintaining the statewide savings goals on an aggregate basis (DOER Brief at 4).

With respect to barriers to achieving greater savings, DOER contends that the strategies to be adopted by the Program Administrators represent a major step forward in increasing participation among renters (DOER Reply Brief at 5). DOER further maintains that the Program Administrators deliver fuel-blind services to one-to-four unit dwellings, including those that heat with oil, as required by the RCS Statute and that the strategies to be adopted by the Program Administrators will lead to greater participation from renters and oil-heat customers during the upcoming three-year term (DOER Reply Brief at 5). Finally, in response to GJC's request for reporting requirements regarding the landlord/tenant barrier, DOER supports this request, in general, but does not support GJC's specific reporting requests (DOER Reply Brief at 5-6, citing GJC Brief at 28, 39).

d. Environment Northeast

ENE contends that the Council unanimously supported the statewide electric and gas savings goals as consistent with the requirements of the Green Communities Act and that the Department should approve the savings goals in consideration of the collaborative process between the Program Administrators and the Council (ENE Brief at 5-6). ENE further argues that the Department should approve the Program Administrators' individual Three-Year Plans because each plan: (1) is consistent with the Council-approved Statewide Plan; (2) is consistent with the Green Communities Act's mandate to achieve all available cost-effective energy efficiency; and (3) will contribute to achieving the greenhouse gas emissions reduction targets of the GWSA and 2020 Climate Plan (ENE Brief at 7). With respect to the 2020 Climate Plan, ENE maintains that if the programs are implemented successfully, the Three-Year Plans will lead

to significant greenhouse gas emissions reductions and will support a major component of the state's strategy for mitigating climate change (ENE Brief at 14).

e. Low-Income Energy Affordability Network

In response to GJC's argument that ratepayers earning 60 to 120 percent of the state median income cannot afford to participate in energy efficiency, LEAN agrees that affordability is a barrier for participation among ratepayers at the low end of that range (i.e., between 60 and 80 percent of the state median income) (LEAN Brief at 3; LEAN Reply Brief at 3). LEAN hopes that the Efficient Neighborhoods+ initiative will address the affordability barrier for these customers (LEAN Brief at 3). LEAN cautions, however, that dedicating additional funding in the Home Energy Services core initiative to low-income residents threatens the cost-effectiveness of the initiative and unnecessarily diverts funds from measure installations (LEAN Brief at 3, citing Tr. 2, at 40). LEAN maintains that it serves renters cost-effectively and comprehensively through its role as a vendor for the low-income energy efficiency programs (LEAN Brief at 1-2; LEAN Reply Brief at 3-4). LEAN states that it intends to participate in the development of the Efficient Neighborhoods+ initiative in order to improve energy efficiency opportunities for customers who earn between 60 and 80 percent of the state median income (LEAN Brief at 3-4; LEAN Reply Brief at 3-4).

f. Green Justice Coalition

GJC contends that the proposed gas and electric savings goals in the Three-Year Plans fall short of the Green Communities Act's all cost-effective energy efficiency mandate (GJC Brief at 11). In addition, GJC argues that there is an opportunity to increase the amount of cost-effective energy efficiency through gas and oil savings (GJC Brief at 11-12, citing Exhs. GJC-10, at 3, 7; Comm-40, at 17; GJC Reply Brief at 2). GJC asserts that additional gas and oil savings will be necessary to meet the goals of the GWSA and the 2020 Climate Plan

(GJC Brief at 11, 12, citing Exh. DPU-GJC-Comm-1-2(a); GJC Reply Brief at 3). To increase oil heat savings, GJC requests that the Department direct the Program Administrators to: (1) track and report participant data by fuel source to the Council; and (2) modify marketing messages to clarify oil-customer eligibility for energy efficiency programs (GJC Brief at 16).

GJC identifies several barriers to achieving greater energy efficiency savings (GJC Brief at 7). Although GJC supports the proposed Three-Year Plans, GJC argues that the Department should direct the Program Administrators to address these barriers in order to ensure that all ratepayers are able to participate in energy efficiency programs, regardless of economic position (GJC Brief at 4, 6).

First, GJC argues that many households are not able to participate in energy efficiency programs because of pre-weatherization barriers (GJC Brief at 28-30; Exh. GJC-9, at 6). According to GJC, providing financial help with pre-weatherization is necessary to increase program participation among low-to-moderate income households (i.e., households at 60 to 120 percent of the state median income) (GJC Brief at 1, 29-31; Exh. GJC-9, at 7). GJC argues that the Program Administrators should allocate a specific budget to low-cost pre-weatherization barriers (GJC Brief at 32). In addition, GJC recommends that the Program Administrators offer a $500 pre-weatherization participant incentive for low-to-medium income households (GJC Brief at 32; Exh. GJC-8, at 1).

Second, with respect to barriers to participation for renters, GJC contends that the person paying for energy efficiency upgrades (i.e., the landlord) may not receive the benefits of those upgrades because renters typically pay the energy bills (GJC Brief at 25, citing Tr. 5, at 962). [31]

[31] GJC states that a recent study found that only two percent of energy efficiency participants surveyed were renters, which GJC contends is low compared to the state's

To remedy this barrier, GJC maintains that the Department should direct the Program Administrators to: (1) improve participant data by reporting homeowner/renter status to the Council on a quarterly basis; (2) designate funds for a landlord/tenant coordinator for residential customers in one-to-four unit buildings; and (3) prioritize serving renters in multi-family properties (GJC Brief at 28). GJC argues that although the Program Administrators have acknowledged the barriers to serving renters, the Program Administrators have not devoted sufficient resources to this issue because implementation strategies have yet to be developed (GJC Reply Brief at 6, citing Exhs. GJC-Comm-1-1; GJC-Comm-1-2).

Third, GJC argues that some residents in hard-to-reach communities are not aware of energy efficiency programs due to limited English language skills, a lack of trust in the utility companies, or confusion about the process (GJC Brief at 21, citing Tr. 2, at 331-334). GJC underscores the importance of reaching out to these communities, which GJC maintains represent a quarter of all Massachusetts households and consume more energy per square foot than other income groups (Exh. GJC-9, at 3). Noting the success of the Chinatown and Chelsea pilot programs as well as Renew Boston, GJC asserts that the Program Administrators should put greater emphasis on community outreach in order to increase participation in hard-to-reach communities (GJC Brief at 7, 22). Specifically, GJC argues that the Department should direct the Program Administrators to: (1) allocate at least 25 percent of their marketing budgets to community outreach; (2) provide timely feedback to entities performing community outreach; and (3) work in tandem with GJC and other interested stakeholders to refine outreach strategies (GJC Brief at 24). In response to LEAN's argument that community-based outreach threatens the cost-effectiveness of the programs and diverts funds from installations, GJC argues that the

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rental population (GJC Brief at 24, citing Exh. DPU-GJC-Comm-1-5 Att. at 46, Tr. 2, at 341; GJC Reply Brief at 6, citing Tr. 2, at 341).

Program Administrators have stated that community initiatives help them achieve greater savings (GJC Reply Brief at 5, citing Tr. 7, at 1412).

Fourth, to address the barrier of high up-front participant costs, GJC argues that the Program Administrators should provide enhanced incentives of up to $2,000 per participant for low-to-moderate income residents (GJC Brief at 33, 36). While GJC endorses the concept of the Efficient Neighborhoods+ initiative, GJC asserts that the Program Administrators have provided insufficient detail on the processes that will be used to determine eligible communities, program scale, budget, and timeframe (GJC Brief at 34). For the initiative to be a success, GJC argues that it and other program partners should be involved in program development (GJC Brief at 34; GJC Reply Brief at 7). Finally, GJC asserts that the Program Administrators should collect and analyze credit-score information on customer eligibility for HEAT loans to make such loans more accessible to low-and-moderate income residents (GJC Brief at 36).

4. Analysis and Findings

a. Program Savings Goals

The Department must ensure that each Program Administrator's Three-Year Plan provides for the acquisition of all available cost-effective energy efficiency and demand reduction resources. G.L. c. 25, §§ 19(a), 19(b), 21(b)(1); see also Guidelines § 3.4.7. In order to achieve the Green Communities Act's mandate for all available cost-effective energy efficiency, the Program Administrators work with the Council to prepare a Statewide Plan. G.L. c. 25, § 21(b)(1). The Statewide Plan contains aggregate electric and gas savings goals, as well as individual savings targets for each electric and gas Program Administrator (Exh. Comm-40; RR-DPU-1, Atts.). These savings goals were developed in an iterative process between the Program Administrators and the Council that culminated with an agreement in principle on the core elements of the Statewide Plan (i.e., savings goals, program budgets, and

performance incentives) (Exh. Comm-1, at 86 & App. R). Based on the savings targets included in the Statewide Plan, each Program Administrator developed its own Three-Year Plan with an individual savings goal (Exh. Comm-1, at 86-87). Following the submission of the individual Three-Year Plans to the Department, the Council unanimously endorsed the savings goals in the Statewide Plan as: (1) meeting the Green Communities Act's requirement to acquire all available cost-effective energy efficiency; and (2) supporting the achievement of the emissions reductions requirement of the 2020 Climate Plan (Exhs. Comm-1, App. R; Comm-4; Comm-5). The Council also supported the individual Three-Year Plans and savings goals to the extent they are consistent with the Statewide Plan (Exh. Comm-5, at 3).

The Department appreciates the efforts of the Program Administrators and the Council to develop the savings goals in the Statewide Plan. The support of this diverse group of stakeholders facilitates the Department's review of the Three-Year Plans, and we give significant weight in our review of the plans to the unanimous endorsement by the Council of the savings goals in the Statewide Plan (Exhs. Comm-1, App. R; Comm-4). Electric Three-Year Plans Order at 32; Gas Three-Year Plans Order at 27.

There is no simple method to evaluate whether the mandate of all available cost-effective energy efficiency has been met. The level of available energy efficiency evolves over time as the factors that affect both energy efficiency supply[32] and demand[33] change. In recognition of this evolution, the Department weighs the following factors when evaluating the Program

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32 Factors affecting energy efficiency supply include limited availability of products to satisfy customer demand, an insufficient workforce to deliver energy efficiency products, and limited customer access to energy efficient products (Exh. Comm-1, at 88; Tr. 5, at 1054-1055; Tr. 6, at 1050-1052).

33 Energy efficiency demand is affected by various barriers to customer participation, including lack of awareness and cost (Exh. Comm-1, at 89).

Administrators' proposed savings goals: (1) the steps the Program Administrators have taken to implement energy efficiency given the current state of energy efficiency supply and demand; and (2) the steps the Program Administrators will take to expand future energy efficiency opportunities.

The Program Administrators assert that the long-term viability of energy efficiency programs requires steady growth to allow the infrastructure and workforce time to develop (see, e.g., Exh. DPU-Comm-3-11). The Department agrees that sustained growth in energy efficiency is essential to implementing the Green Communities Act's long-term mandate to achieve all available cost-effective energy efficiency. Electric Three-Year Plans Order at 85, citing G.L. c. 25, § 19(a), 21(a), § 21(b), 22(b); Gas Three-Year Plans Order at 71-72, citing G.L. c. 25, § 19(a), 21(a), § 21(b), 22(b). Building customer confidence in energy efficiency through high quality workmanship, high quality programs, and appropriate program design is necessary to ensure the long-term success of the programs. Sustained growth of existing programs alone, however, will not satisfy the requirement to acquire all available cost-effective energy efficiency. Instead, the Program Administrators must actively incorporate new technologies and address barriers to participation in order to expand both the supply of energy efficiency products and services and the demand for energy efficiency.

Throughout these proceedings, the Program Administrators have demonstrated their commitment to expanding future opportunities for energy efficiency (see, e.g., Tr. 3, at 588-590; Tr. 5, at 1008-1009; Tr. 6, at 1131-1134). The Program Administrators intend to implement enhancements to each core initiative aimed at new technologies, transforming markets, and overcoming barriers to customer participation (see, e.g., Exh. Comm-1, at 41-62). Through the Massachusetts technical assessment committee, the Program Administrators have developed a

forum to assess new technologies and to ensure that only proven technologies are offered through the energy efficiency programs (Tr. 3, at 589-590). This ensures that customers have access to the latest technologies without risking consumer confidence by utilizing technologies that may fail.

In addition, the Program Administrators have invested significant efforts during the first three-year plan term to address energy efficiency supply and demand barriers. On the supply side, for example, the Program Administrators redesigned the program delivery model for the Home Energy Services core initiative[34] in order to significantly increase the ability of outside vendors to serve customers (Tr. 3, at 466). In addition, the Program Administrators will take steps to continue to expand the pool of qualified energy efficiency contractors (Tr. 6, at 1150-1153). The low wait time for energy efficiency services demonstrates that current supply barriers have been reasonably addressed (Tr. 5, at 957-960).

On the demand side, the Program Administrators have identified a number of barriers to participation in energy efficiency, including: (1) a lack of customer awareness; and (2) high customer cost (Exh. Comm-1, at 88). In the C&I sector, the Program Administrators have addressed these barriers in part through the Main Streets initiative, financing programs for smaller customers, expanded marketing, and market segmentation (Exh. Comm-1, at 198-213; Tr. 3, at 561-562; Tr. 6, at 1133-1134). In the residential sector, the Program Administrators will

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[34] The Home Energy Services core initiative provides single family residential customers with energy efficiency recommendations and incentives using a whole-house approach aimed at achieving greater savings per customer than would otherwise be the case (Exh. Comm-1, at 126, 129). The initiative uses energy audits to provide general information about energy efficiency opportunities (Exh. Comm-1, at 129-130). During an audit, light bulbs, faucet aerators, programmable thermostats, and other measures are installed at no cost to the customer (Exh. Comm-1, at 129).

address these barriers primarily through the Efficient Neighborhoods+ initiative (Exh. Comm-1, at 171-173).

The Program Administrators have demonstrated that their savings goals represent a well reasoned, judicious expansion of each core initiative through planned program enhancements aimed at targeting new technologies and expanding program participation. In addition, the Program Administrators have demonstrated that their savings goals appropriately account for historical performance and the latest EM&V study results (see, e.g., Exhs. DPU-NSTAR-2-4 Att.; DPU-Grid-1-4).

Based on the evidence discussed above, the Department finds that the Program Administrators have taken appropriate steps to acquire all available cost-effective energy efficiency in their Three-Year Plans, given the current state of supply and demand. In addition, the Program Administrators have provided a reasonable proposal to expand future energy efficiency opportunities. Accordingly, we find that the statewide aggregate gas and electric savings goals are reasonable and consistent with the achievement of all available cost-effective energy efficiency.

With respect to the Program Administrators' individual savings goals, as shown in Tables 1 and 2, above, National Grid (gas), Columbia Gas, NSTAR Gas, National Grid (electric), NSTAR Electric, and WMECo have established individual savings goals in excess of the statewide aggregate goal; whereas Berkshire Gas, NEGC, Unitil (gas), Unitil (electric), and the Compact have established savings goals below the statewide aggregate goal (Exhs. Comm-1, App. R at 1, 4, 5, 8-9; DPU-Comm-8-27 (CMA)). The Program Administrators and DOER maintain that the individual Program Administrators' savings goals comply with the Green Communities Act and appropriately account for unique service territory conditions and

characteristics (Exh. Comm-1, App. H; Program Administrator Brief at 17-24; DOER Brief at 4). The Program Administrators cite unique (1) demographics, (2) building types, (3) income types, (4) fuel types, (5) populations, and (6) geographic locations, as reasons for the varying savings goals (Program Administrator Brief at 18, citing Exh. Comm-1, at 106). No party objected to the savings goals of any individual Program Administrator (Exh. Comm-4).

We commend those Program Administrators that have set energy efficiency targets in excess of the statewide aggregate goal. We also understand that certain Program Administrators face particular and documented challenges in achieving energy efficiency savings, which warrant flexibility in setting savings goals that deviate from the statewide target, provided that the Program Administrator provides detailed justification for the deviation. Electric Three-Year Plans Order at 33; Gas Three-Year Plans Order at 28.

In consideration of the evidence cited above and the unique economic and other conditions in the service territories of Berkshire Gas, Unitil (gas), NEGC, Unitil (electric), and the Compact the Department finds that the Program Administrators have demonstrated that their individual savings goals are reasonable and consistent with the achievement of all available cost-effective energy efficiency (Exhs. Comm-1, at 105-106 & App. H; CLC-12; CLC-13; Tr. 5, at 1045-1047, 1072-1080). Notably, Berkshire Gas, NEGC, Unitil (gas), and Unitil (electric) as Program Administrators with savings goals greater than 20 percent below the statewide aggregate savings goal, have agreed to undertake a study to assess the energy efficiency potential within their service territories (Exh. Comm-1, App. R). As the Compact's savings goal is also greater than 20 percent below the statewide aggregate savings goal, the Department directs it to

take part in this study as well.[35] The study is important and its results will inform the Department's review of savings goals in future three-year plans.

b. Greenhouse Gas Emissions Reductions from Energy Efficiency

The GWSA establishes a number of requirements for reducing greenhouse gas emissions in the Commonwealth.[36] G.L. c. 21N. The Department considers below the extent to which the Program Administrators' savings goals support the achievement of the emissions reductions requirements of the GWSA.

Pursuant to the GWSA, on December 29, 2010, the Secretary of EOEEA established a legally binding requirement that the Commonwealth reduce its greenhouse gas emissions by

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35 During evidentiary hearings, the Compact testified that its electricity sales for the C&I sector have stabilized and are expected to decline over time (Tr. 6, at 1198-1199). The Compact's status as a municipal aggregator does not exempt it from the requirements of the Green Communities Act and, in particular, the requirement that its Three-Year Plan provide for the acquisition of all available cost-effective energy efficiency. G.L. c. 25, §§ 19(a), 19(b), 21(b)(1). Accordingly, because the Compact's savings goal is greater than 20 percent below the statewide aggregate savings goal, we find that it is appropriate for the Compact to participate in the study cited above to assess the energy efficiency potential within its service area.

36 The GWSA defines greenhouse gas as, "any chemical or physical substance that is emitted into the air and that the [D]epartment [of Environmental Protection] may reasonably anticipate will cause or contribute to climate change including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride." G.L. c. 21N, § 1. Pursuant to the GWSA, Massachusetts must: (1) reduce its greenhouse gas emissions by ten to 25 percent of 1990 levels by 2020; (2) reduce its greenhouse gas emissions by at least 80 percent of 1990 levels by 2050; and (3) develop interim 2030 and 2040 emissions limits, to "maximize the ability of the [C]ommonwealth to meet the 2050 emissions limit." G.L. c. 21N, §§ 3(b), 4(a). The GWSA empowers the Executive Office of Energy and Environmental Affairs ("EOEEA") and the Department of Environmental Protection ("DEP"), in consultation with DOER, to conduct analyses and implement policies in order to realize these requirements. G.L. c. 21N, §§ 1-7; NSTAR Electric Company, D.P.U. 12-30, at 94 (2012).

25 percent of 1990 levels by 2020.[37] See G.L. c. 21N, § 4(a). In addition, EOEEA published the 2020 Climate Plan, which describes a portfolio of policies aimed at enabling the Commonwealth to achieve the 2020 emissions reduction requirement. 2020 Climate Plan, at ES-6-ES-9.

The 2020 Climate Plan attributes the largest percentage of emissions reductions to be achieved in 2020 to energy efficiency (i.e., a 7.1 percent reduction in greenhouse gas emissions from 1990 levels).[38] 2020 Climate Plan at ES-6. Accordingly, reaching the emissions reduction target for energy efficiency in the 2020 Climate Plan is essential for the Commonwealth to meet the 2020 emissions reduction requirement of the GWSA. In addition, energy efficiency is widely accepted as one of the lowest-cost options for reducing greenhouse gas emissions. See, e.g., Electric Three-Year Plans Order at 91; Gas Three-Year Plans Order at 77. Any shortfall in meeting the energy efficiency target in the 2020 Climate Plan will result in the need for additional emissions reductions from other sectors of the economy (e.g., electricity supply and transportation), which would likely be more costly. See D.P.U. 12-30, at 104, citing Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, D.P.U. 10-54, at 176 (2010). Given the essential role that energy efficiency must play in meeting the requirements of the GWSA, the Department considers the extent to which the Program Administrators' savings goals support the achievement of the emissions reductions in the 2020 Climate Plan.

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37 Determination of Greenhouse Gas Emission Limit for 2020 (Mass. Executive Office of Energy and Envtl. Affairs) (December 29, 2010), available at http://www.mass.gov/eea/docs/eea/energy/2020-ghg-limit-dec29-2010.pdf.

38 The 2020 Climate Plan anticipates that the energy efficiency programs implemented in Massachusetts between 2010 and 2020 will reduce 6.7 million metric tons of carbon dioxide equivalent ("MMTCO2e") in 2020. 2020 Climate Plan at 18-19.

GJC argues that the Statewide Plan does not reach the level of savings for oil and gas established in the 2020 Climate Plan and recommends that the Department require the Program Administrators to implement several program enhancements in order to serve additional oil heat customers (GJC Brief at 11-12, 16). The Program Administrators respond that these program enhancements have not been properly vetted through the Council process (Program Administrator Reply Brief at 29). Further, they argue that the savings targets approved by the Council fully support the emissions reductions targets in the 2020 Climate Plan (Program Administrator Reply Brief at 29, citing Exhs. Comm-4; Comm-5).

The Council and the Program Administrators weigh many factors when setting savings goals, including multiple studies of energy efficiency potential, experience implementing programs in the field, and EM&V study results (Exh. Comm-1, at 80-87). As we found in Section IV.B.4.a, above, these savings goals are reasonable and are consistent with the achievement of all available cost-effective energy efficiency. In addition, the Council endorsed the savings goals as fully consistent with the emissions reductions requirements of the 2020 Climate Plan (Exhs. Comm-1, App. R; Comm-4).[39] Accordingly, the Department finds that the Program Administrators' savings goals appropriately support the achievement of the emissions reductions in the 2020 Climate Plan. For this reason, and because the oil heat program enhancements have not been approved by the Council, we will not require the Program Administrators to adopt GJC's recommendations.

The lifetime electric, gas, and oil savings associated with the Statewide Plan are projected to reduce greenhouse gas emissions by 23.22 million MMTCO2e (see Exh. Comm-1, at 270). An estimate of emissions reductions associated with energy efficiency programs in the

[39] DOER and ENE also support this view (DOER Brief at 5, 8; ENE Brief at 7, 15).

Commonwealth that would allow for a direct comparison of the emissions reductions estimate of the Statewide Plan and the emissions reduction estimates of 2020 Climate Plan is not currently available (Exh. ENE-Comm-1-2; Tr. 5, at 909-911). We encourage the Program Administrators to work with relevant state agencies and stakeholders to refine the method used to calculate greenhouse gas emissions reductions from energy efficiency so that, in the future, it is possible to compare the emissions reductions from energy efficiency installed to date with the emissions reductions from energy efficiency contemplated by the 2020 Climate Plan.

c. Barriers to Achieving Additional Energy Efficiency Resources

The Program Administrators' Three-Year Plans, including the energy efficiency programs and savings goals contained therein, are designed to achieve all available cost-effective energy efficiency. As the Department noted above, however, the level of available cost-effective energy efficiency changes over time. In order to ensure that the requirements of the Green Communities Act and the GWSA are met, the Program Administrators must make constant progress towards the goal of acquiring all available cost-effective energy efficiency. Such progress will require the ongoing employment of strategies to enhance the energy efficiency programs to, among other things, incorporate new technologies and address barriers to the acquisition of additional cost-effective resources.

While the Program Administrators and the Council have done an admirable job putting Massachusetts well on the path to achieving the Commonwealth's clean energy goals, given the importance of this challenge the Department must ensure that the Program Administrators continue to aggressively address all barriers to achieving additional cost-effective energy resources over the upcoming term.

The Program Administrators, Council, and intervenors have identified a number of barriers to increasing the demand for energy efficiency in the residential sector (see, e.g.,

Exhs. Comm-1, at 12, 44-62, 87-89; GJC-9, at 6-7; Tr. 2, at 331-334; Tr. 5, at 1050-1052; Tr. 6, at 1206-1207). These include: (1) the landlord/tenant barrier; (2) the pre-weatherization barrier; (3) a lack of customer awareness of energy efficiency programs; (4) the cost of participating in energy efficiency programs; and (5) hard-to-reach customers (Exhs. Comm-1, at 12; GJC-9, at 6-7; Tr. 5, at 962-963).

The Program Administrators plan to address the barriers to energy efficiency demand through an ambitious set of program enhancements (see, e.g., Exh. Comm-1, at 44-62, 87; Tr. 5, at 1050-1052; Tr. 6, at 1206-1207). As discussed above, the Statewide Plan includes several enhancements designed to address these residential sector barriers: (1) the Efficient Neighborhoods+ initiative; (2) a pre-weatherization incentive; (3) enhanced incentives targeting two-to-four unit buildings; (4) community-based engagement; and (5) outreach to landlord trade groups and property management organizations (Exh. Comm-1, at 46-47, 126-129, 135-139, 171-173). The Statewide Plan includes a general timeline for the development and implementation of each effort but does not include details on how such efforts will be implemented (see, e.g., Exh. Comm-1, at 126-129, 171-173). The Program Administrators intend to develop certain of these implementation details in the context of the residential management committee (Tr. 5, at 997-998).[40]

The Department will not micromanage the manner in which the Program Administrators develop the program enhancements or interfere in the well functioning Council process. However, given the importance of the need to address residential barriers, we must ensure that the process by which the Program Administrators develop their proposed program enhancements

[40] Specifically, the Program Administrators testified that they likely will establish a working group as part of the residential management committee as a vehicle to address issues related to the landlord/tenant barrier (Tr. 5, at 997-998).

is open and transparent and provides stakeholders with a meaningful opportunity to participate. In addition, due to the interrelated nature of many of the enhancements noted above, it is important for the Program Administrators to address these issues in a coordinated manner.

Accordingly, the Department directs the Program Administrator to convene a working group with all stakeholders to address the specific strategies to overcome residential barriers.[41] So that we can monitor the progress of the working group, the Program Administrators must provide the Department with an agenda in advance of each meeting.

In addition, the Program Administrators shall provide a written report to the Department, on or before September 30, 2013, on their progress towards implementing the proposed residential program enhancements. At a minimum, the report should include information on: (1) the Efficient Neighborhoods+ initiative; (2) community-based engagement initiatives; (3) the landlord/tenant barrier; and (4) the pre-weatherization barrier. Specific reporting requirements are detailed below.

With regard to the Efficient Neighborhoods+ initiative, the report should describe: (1) the selected target communities, and the process and criteria used to select those communities; (2) the design elements, including, as appropriate, elements targeted at overcoming the renter/landlord barrier (see Exh. Comm-1, at 127); (3) technologies offered and participant incentive structures, including, as appropriate, incentives intended to overcome the pre-weatherization barrier (see Exh. Comm-1, at 127-128); (4) the delivery mechanism

[41] GJC presents several specific recommendations for overcoming urban residential barriers (see, e.g., GJC Brief at 21-32). The Program Administrators maintain that their proposal has been vetted by the Council and will better address many of the GJC's stated goals (Program Administrator Reply Brief at 30-32). As we found above, the steps that the Program Administrators intend to take to expand future energy efficiency opportunities are reasonable. Therefore, the Department will not require the Program Administrators to adopt GJC's specific recommendations. Instead, we encourage GJC and other interested stakeholders to actively participate in the working group process.

(see Exh. Comm-1, at 133-134); and (5) the marketing strategy (see Exh. Comm-1, at 127-128). The report should also include: (1) the categories of data that the Program Administrators will track related to the performance of the Efficient Neighborhoods+ initiative in overcoming participation barriers, and how the Program Administrators will assess the effectiveness of the initiative in overcoming the barriers; (2) the projected implementation timeline for the remainder of the three-year term; and (3) a description of the initiative's projected implementation costs.

In addition, the report should also describe the status of community-based engagement initiatives that the Program Administrators intend to implement over the three-year term outside of the Efficient Neighborhoods+ initiative (see Exh. Comm-1, at 233-236). The report should include: (1) the method the Program Administrators use to select communities; (2) the communities selected, and the design elements, technologies, participant incentive structures, delivery mechanisms, and marketing strategy for each community; (3) the categories of performance data that the Program Administrators intend to track and the manner in which they will assess the effectiveness of the initiatives in overcoming the identified residential barriers; (4) the projected implementation timeline for the remainder of the three-year term; and (5) a description of the initiatives' projected implementation costs.

With respect to the residential landlord/tenant barrier, the report should describe: (1) the strategies[42] that the Program Administrators intend to employ to address this barrier (including, but not limited to marketing and outreach to landlords and property owners, and enhanced incentives packages for multi-family properties); (2) the projected implementation timeline for the remainder of the three-year term; and (3) a description of the projected implementation costs (Exh. Comm-1, at 127-128).

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[42] The report should identify whether these strategies will be pursued through the Efficient Neighborhoods+ initiative, the community-based initiatives, or a different initiative.

Finally, the report should include a detailed description of the strategies that the Program Administrators have developed to address the pre-weatherization barrier. The report should discuss whether these strategies will be pursued through the Efficient Neighborhoods+ initiative, the community-based initiatives, or other mechanisms, and should include a projected implementation timeline for the remainder of the three-year term, as well as a description of the projected implementation costs.

C. Evaluation, Measurement, and Verification

1. Introduction

Pursuant to the Green Communities Act, energy efficiency plans may include programs for planning and evaluation. G.L. c. 25, § 21(b)(2). The Department's Guidelines, however, require each three-year plan to include an evaluation plan that describes how the Program Administrator[43] will evaluate the energy efficiency programs during the term of its three-year plan. Guidelines § 3.5.2. In adopting these Guidelines, the Department sought to ensure that a collaboratively developed, statewide EM&V strategy was in place. Electric Three-Year Plans Order at 129; Gas Three-Year Plans Order at 120; Guidelines § 3.5.2.

The Department found that the EM&V framework included in the 2010 to 2012 three-year plans was consistent with the Green Communities Act and the Guidelines. Electric Three-Year Plans Order at 129; Gas Three-Year Plans Order at 120. The Department, however, expressed concern regarding the reliability of the non-energy impacts[44] included in the

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43 For purposes of EM&V, Program Administrators include Blackstone Gas.

44 Non-energy impacts are non-resource benefits that accrue specifically to participants. They include but are not limited to: (1) reduced costs for operation and maintenance associated with efficient equipment; (2) the value of longer equipment replacement cycles and/or productivity improvements associated with efficient equipment; (3) reduced environmental and safety costs; and (4) all benefits associated with providing energy efficiency services to low-income customers. Guidelines §§ 3.4.4.1(b)(ii), 3.4.4.2(b)(ii).

cost-effectiveness analyses. Electric Three-Years Plan Order at 130-131; Gas Three-Year Plans Order at 121. The Department directed the Program Administrators to undertake evaluation studies to examine non-energy impacts, including all underlying assumptions, to ensure that updated and more reliable values would be applied in the cost-effectiveness analyses in subsequent three-year plans. Electric Three-Years Plan Order at 130-131; Gas Three-Year Plans Order at 121.

Pursuant to the 2010 to 2102 EM&V framework, Program Administrators conducted approximately 45 statewide studies that were completed during 2010 and 2011, and approximately 30 statewide studies that were completed during 2012 (Exh. Comm-1, at 245; Tr. 6, at 1344-1345). The Program Administrators expect to complete a third round of statewide studies during 2013 (Exh. Comm-1, at 245; Tr. 1, at 6, at 1344-1345). The results of all studies are recorded in the Technical Reference Manual ("TRM"), which documents the savings from the installation of energy efficiency measures and provides methods and default assumptions for estimating energy, peak demand, and other resource impacts from efficiency measures (Exh. Comm-1, App. N at 6).[45]

2. Program Administrators' Proposal

a. EM&V Framework

The Program Administrators propose to continue to categorize their EM&V activities by program research areas and to apply the appropriate type of research study, or studies, to each research area (Exh. Comm-1, at 238-245). The Program Administrators propose to focus their

[45] The data included in the TRM inform the program cost-effectiveness analyses, addressed in Section VII, below (Exh. Comm-1, App. N at 8).

EM&V activities on three research areas: (1) residential;[46] (2) C&I;[47] and (3) special and cross-cutting[48] (Exh. Comm-1, at 238). Within each research area, the Program Administrators propose to conduct the following types of 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. Comm-1, at 244).[49] In addition, the Program Administrators state that they are committed to evaluating projects associated with building codes and standards, behavioral and outreach initiatives, and quantification of market effects (Exh. Comm-1, at 245). The Program Administrators propose to allocate a minimum of $69.2 million (three percent of the budget) for statewide EM&V activities during the upcoming three-year term (Exh. Comm-1, at 244).

In April 2012, the Program Administrators and the Council created an evaluation management committee, which serves as a steering committee for statewide evaluation issues and provides guidance and direction to each of the evaluation research areas (Exh. Comm-1, at 238; Tr. 1, at 97). The Program Administrators state that the evaluation management

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46 Six research categories were included in the 2010 to 2012 EM&V framework. See Electric Three-Year Plans Order at 125-126; Gas Three-Year Plans Order at 115-116. The residential research area consolidates three categories that were separate in the 2010 to 2012 EM&V framework: (1) residential retrofit and low-income; (2) residential retail products; and (3) residential new construction (Exh. Comm-1, at 242).

47 The C&I research area consolidates two categories that were separate in the 2010 to 2012 EM&V framework: (1) non-residential large retrofit; and (2) new construction and non-residential small retrofit (Exh. Comm-1, at 243).

48 The special and cross-cutting research area accounts for those studies that do not fall within the two other categories. Examples of such studies are: (1) cross-sector free-ridership and spillover studies; (2) non-energy impacts; (3) behavioral programs; (4) community based-pilots; and (5) marketing, public education, and outreach activities (Exh. Comm-1, at 243).

49 These study types are unchanged from those included in the 2010 to 2012 EM&V framework. See, e.g., Electric Three-Year Plans Order at 125.

committee will oversee statewide evaluation issues, provide guidance on each of the evaluation research areas and help plan and prioritize the research studies to be undertaken over the three-year term (Exh. Comm-1, at 238).

To determine whether a study is warranted, the Program Administrators state that the evaluation planning process relies on three factors: (1) the portion of savings that a program, end-use or measure contributes to overall savings; (2) the length of time since the program, end-use, or measure was previously studied; and (3) changes in program design or implementation (Tr. 1, at 92). The Program Administrators intend to hold a three-day planning session in early 2013, to identify evaluation needs and specific evaluation activities they will undertake during the upcoming three-year term (Exh. Comm-1, at 245; Tr. 1, at 94-95). The Program Administrators, Council, and third-party evaluation vendors, will participate in these sessions (Exh. Comm-1, at 245; Tr. 1, at 94-95).

b. Statewide Database

The Program Administrators identified differences in their program data tracking systems as a challenge as they transitioned from individual EM&V efforts to a statewide approach (Exh. Comm-1, at 243). As a result, the Program Administrators and the Council have prioritized efforts to develop appropriate statewide data management and analytics options (i.e., a statewide database) (Exh. Comm-1, at 263, citing Priorities Resolution). The Program Administrators state that they will work on database development with DOER and other interested stakeholders and have budgeted $1,500,000 to fund this effort over the three-year term (Exh. Comm-1, at 264, n.51).

c. Non-Energy Impacts

The Program Administrators state that, pursuant to the Department's directives, they undertook four studies associated with evaluating non-energy impacts: (1) Low-Income

Non-Energy Impacts Evaluation Study; (2) 2011 Massachusetts Special and Cross-Sector Studies Area, Residential and Low-Income Non-Energy Impacts Evaluation; (3) Massachusetts Program Administrators Final Report – C&I Non-Energy Impacts Study; and (4) 2011 Mass Save Home Energy Services Study (Exhs. Comm-1, at 70, 76; App. N at 318 n.660, 416-417, 420, 430, 436, 441, 444; 2010 Energy Efficiency Annual Report, App. C, Study 7, at 1-2). The Program Administrators have incorporated the results of these studies in the TRM (see Exh. Comm-1, App. N at 416-436).

3. Positions of the Parties

a. Program Administrators

The Program Administrators assert that their proposed EM&V framework satisfies both the Guidelines and Department precedent (Program Administrator Brief at 76). The Program Administrators argue that their proposed EM&V framework builds upon lessons learned over the last three years (Program Administrator Brief at 74). In addition, the Program Administrators contend that the proposed EM&V framework contains several enhancements to the existing framework that are intended to improve the precision and usefulness of the studies, including the consolidation of research areas from six to three in order to maximize the effectiveness of statewide EM&V, while minimizing the potential overlap among market areas (Program Administrator Brief at 74). The Program Administrators contend that their proposed budget of $69.2 million for EM&V is consistent with the Term Sheets and is reasonable based on several factors, including historic evaluation costs and expected higher costs for certain evaluation activities (Program Administrator Brief at 74-75).

The Program Administrators argue that they are committed to developing an enhanced statewide database that is efficient, reliable, and useful (Program Administrator Brief at 120). The Program Administrators contend that, while development of a statewide database will be

costly and involve significant work, it should assist in efforts to streamline regulatory and administrative burdens, and should complement the Department's streamlining efforts in D.P.U. 11-120-A, Phase II (Program Administrator Brief at 119-121).

With respect to DOER's recommendations concerning the method of calculating vendor savings in the residential Home Energy Services core initiative, the Program Administrators argue that this is the subject of an upcoming evaluation study and that it is too early to know what the results of the evaluation study will be and how they will be applied (Program Administrator Reply Brief at 4, citing Tr. 1, at 118-121). The Program Administrators contend, therefore, that DOER's concerns are premature and can be better addressed as part of the evaluation management committee's responsibilities (Program Administrator Reply Brief at 4).

Responding to the issues raised by GJC regarding the collection of data on, among other things, oil heat customers and renters, the Program Administrators argue that collecting such data raises serious privacy concerns and is likely to result in no additional value because data collection does not ensure customer participation (Program Administrator Reply Brief at 28, citing GJC Brief at 16-20). The Program Administrators reject the suggestion that they do not currently collect appropriate categories of information and argue that GJC's recommendations, if adopted, would constitute inappropriate micromanagement (Program Administrator Reply Brief at 28). Finally, the Program Administrators contend that GJC's concerns and recommendations regarding data collection are best addressed during the statewide database development process (Program Administrator Reply Brief at 28).

The Program Administrators, noting the Department's prior directive to evaluate the assumptions underlying the non-energy impacts incorporated in the cost-effectiveness analyses, assert that that they have presented non-energy impacts that are consistent with the non-resource

benefits contemplated by the Department and are consistent with the benefits to be included in the TRC test (Program Administrator Brief at 38, citing Electric Three-Year Plans Order at 51-52; Gas Three-Year Plans Order at 48-49).[50] The Program Administrators argue that the proposed non-energy impacts represent the best available, objective collected data (Program Administrator Reply Brief at 14-15).

In addition, the Program Administrators argue that a Department investigation into non-energy impacts, as recommended by the Attorney General, would be unwarranted, costly and would be an inappropriate use of ratepayer funds (Program Administrator Reply Brief at 10). In response to the Attorney General's questions concerning the reliability and accuracy of the proposed non-energy impacts, the Program Administrators contend that the non-energy impacts were developed by a third-party vendor who was supervised by the Council's EM&V expert.

Regarding the Attorney General's concerns that non-energy impacts are treated differently across programs, the Program Administrators argue that the fact that a non-energy impact may be applied differently demonstrates that its application is based on specific study results that appropriately consider customers' unique characteristics (Program Administrator Reply Brief at 13). The Program Administrators argue that they have demonstrated that non-energy impacts that apply uniquely to the low-income sector (e.g., economic development and price hedging non-energy impacts) are appropriate (Program Administrator Reply Brief at 12, citing RR-AG-4; RR-AG-5; RR-AG-10; Guidelines §§ 3.4.4.1(b)(ii), 3.4.4.2(b)(ii)). For example, with regard to the Attorney General's arguments about the non-energy impacts associated with health and thermal comfort, the Program Administrators argue that the

[50] Specifically, the Program Administrators contend that they presented their detailed non-energy impact assumptions in the TRM, with all assumptions supported by appropriate source documents and expert testimony (Program Administrator Brief at 38, citing, Exh. Comm-1, at 416-436; Tr. 1, at 25).

underlying study "contemplated demographic variables that contribute to the variation in magnitude of these benefits" (Program Administrator Reply Brief at 13, citing Exh. Comm-1, App. N at 421-24, 428, 431-435). Finally, with respect to the Attorney General's argument regarding the benefit associated with increases in property values, the Program Administrators assert that the use of self-reported data (with a sufficient sample size) is an accepted industry norm for valuing non-energy impacts (Program Administrator Reply Brief at 14).

b. Attorney General

The Attorney General supports the development and implementation of a statewide database, stating that it would lessen some of the reporting burdens described by the Program Administrators (Attorney General Brief at 14-15, citing Tr. 6, at 1158-1170). The Attorney General encourages the Department to promote and participate in the development of the database (Attorney General Brief at 15).

The Attorney General acknowledges that non-energy impacts are integral to energy efficiency programs and notes that a significant percentage of total program benefits are attributed to non-energy impact benefits (Attorney General Brief at 9-10, citing Exh. Comm-1, App. N at App. C). The Attorney General argues, therefore, that the Department should reexamine the TRC test's reliance on these benefits in its cost-effectiveness analysis (Attorney General Brief at 9). Specifically, the Attorney General requests that Department investigate: (1) whether each of the non-energy impacts listed in the TRM are benefits that should be included in the cost-effective analyses;[51] and (2) whether the non-energy impacts and their corresponding values should be treated uniformly across programs[52] (Attorney General Brief

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51 The Department addresses this issue in Section VII, below.

52 The Attorney General contends that the treatment of non-energy impacts associated with the following benefits is not uniform: (1) health benefits (i.e., different values for

at 9). Finally, the Attorney General argues that the non-energy impacts for an owner's perceived increase in property value due to energy efficiency measures in the Low-Income Multifamily Retrofit program is subjective, unreliable and lacking credibility because it is based on survey responses from program participants and not supported by a property valuation expert (Attorney General Brief at 11, citing Exh. Comm-1, App. N at App. C).

c. Department of Energy Resources

DOER identifies an issue with the way in which the TRM describes vendor savings in the residential Home Energy Services core initiative (DOER Brief at 17, citing Exh. Comm-1, App. N at 137, 331). In particular, DOER expresses concern that this section of the TRM lacks sufficient transparency in that planned savings (as included in the Three-Year Plans) are based on one set of assumptions, while reported savings (to be included in performance reports) will be based on the output of vendor-specific software (DOER Brief at 17, citing Tr. 17, at 116-121).

DOER argues that the development of a statewide database will ensure the accuracy, accessibility, and timely availability of energy efficiency program data, and supports the Program Administrators' proposal to fund this project (DOER Brief at 14). DOER notes that, while it is mindful of the initial costs and challenges inherent in developing a statewide database, it is convinced that, over time, a statewide database will produce meaningful savings associated with data reporting costs (DOER Brief at 14-15; DOER Reply Brief at 2).

DOER argues that the Department has previously approved the inclusion of non-energy impacts in the calculation of program benefits and that the Program Administrators appropriately

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residential and low-income programs); (2) thermal comfort (i.e., different values for residential and low-income programs); (3) lighting quality (i.e., applied only to the Low-Income 1-4 Family Retrofit program; and (4) price hedging (i.e., applied only to the Low-Income 1-4 Family and Multifamily Retrofit programs (Attorney General Brief at 10, citing Exh. Comm-1, App. N at App. C).

undertook non-energy impact studies in response to the Department's directives (DOER Reply Brief at 9, citing Electric Three-Years Plan Order at 130-131; Gas Three-Year Plans Order at 121). DOER contends that these studies were conducted pursuant to the Department-approved EM&V process (DOER Reply Brief at 9). DOER argues that the non-energy impact values that the Attorney General questions were derived using well established procedures that are standard practice in the EM&V field (DOER Reply Brief at 9).

d. Environment Northeast

ENE argues that careful review and calibration of the treatment of non-energy impact assumptions is required to ensure that all benefits and costs of energy efficiency programs are accurately quantified, recorded and projected (ENE Reply Brief at 3-4). ENE, however, states that the current proceedings are not the proper forum for this type of investigation as suggested by the Attorney General (ENE Reply Brief at 4).

e. Green Justice Coalition

GJC requests that the Department direct the Program Administrators to track certain program participant data (i.e., renter status, building type, fuel type, conversion rates from audit to program completion, and total measures installed) by census tract or zip code, and to report this data to the Council quarterly (GJC Brief at 19-20). GJC argues that improving participant data collection in this manner will reduce barriers to participation by low-to-moderate income households by allowing the Program Administrators to target these households (GJC Brief at 18; GJC Reply Brief at 4). GJC argues that the cost to collect this data will be minimal compared to the cost of the programs and that having the data will lead to greater savings (GJC Reply Brief at 4).

4. Analysis and Findings

a. Introduction

EM&V is the systematic collection and analysis of information to document the impact and effect of energy efficiency programs, in terms of costs and benefits, and to improve their effectiveness. Electric Three-Year Plans Order at 125; Gas Three-Year Plans Order at 115. The results of EM&V activities are critical to the Department's role, under the Green Communities Act, to ensure that energy efficiency programs are cost-effective (i.e., that each program's benefits exceeds its costs, see Section VII, below).[53] G.L. c. 25, §§ 19(a)-(c), 21(b)(3); Guidelines § 3.4.3.1. To fulfill this responsibility, the Department must ensure that Program Administrators, through their EM&V activities, determine program savings in an appropriate manner that ensures the accuracy and reliability of: (1) the method by which the Program Administrators track and verify measure installations; and (2) the measure savings data documented in the TRM.

b. EM&V Framework

The Program Administrators' proposed EM&V framework includes the following elements: (1) a budget of $69.2 million to fund statewide EM&V activities during the upcoming

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[53] In Electric Three-Year Plans Order at129-130 and Gas Three-Year Plans Order at 120, the Department addressed the importance of EM&V activities:

> 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 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 great importance as the Program Administrators seek to fulfill the [Green Communities] Act's mandate to acquire all available energy efficiency and demand-reduction resources that are cost-effective or less expensive than supply. Consistent and reliable EM&V studies will ensure that the program investments continue to provide net benefits to ratepayers.

three-year term (Exh. Comm-1, at 244); (2) three EM&V research areas (i.e., residential, C&I, and special and cross-cutting issues) (Exh. Comm-1, at 238); (3) six types of EM&V studies (i.e., measurement and verification, impact evaluation, market evaluation, process evaluation, market characterization or assessment, and evaluation of pilots) (Exh. Comm-1, at 244); (4) oversight of EM&V activities by the evaluation management committee (Exh. Comm-1, at 238); and (5) a planning session to identify evaluation needs for the upcoming term (Exh. Comm-1, at 245). The Program Administrators have demonstrated that this framework is appropriate in terms of funding, scope, oversight and planning (see Exh. Comm-1, at 238-245). Accordingly, the Department finds that the proposed EM&V framework is consistent with the Green Communities Act, Department precedent, and the Guidelines. G.L. c. 25, § 21(b)(2); Guidelines § 3.5.

As noted above, the Department places great importance on the Program Administrators' EM&V activities. We expect that the discussions during the upcoming planning session will have a significant impact on those activities during the upcoming term.[54] Accordingly, the Department will attend (and participate in, as appropriate) these sessions.

c. Statewide Database

In D.P.U. 11-120-A, Phase II, the Department revised the manner in which the Program Administrators report, and the Department reviews, Program Administrator performance in implementing the three-year plans. Beginning with the 2013 to 2015 term, each Program Administrator will submit for Department review a performance report at the completion of each three-year term ("Three-Year Term Report"). D.P.U. 11-120-A, Phase II at 12. In addition, each

[54] These planning sessions, as well as the ongoing work of the evaluation management committee, are the appropriate venues for DOER to raise issues with the calculation of vendor savings in the residential Home Energy Services core initiative (see DOER Brief at 17).

Program Administrator will submit an annual status report to allow the Department and other stakeholders to monitor its performance during the term ("Plan-Year Report").[55]

D.P.U. 11-120-A, Phase II at 12.

The Program Administrators have included funding for the development of a statewide database in their energy efficiency budgets (Exh. Comm-1, at 26 n.9; Tr. 4, at 754-55). The development of a statewide database is consistent with, and complementary to, the revised reporting protocols established in D.P.U. 11-120-A, Phase II. The development of a statewide database is in the early stages (Tr. 6, at 1189-90). To ensure consistency between the development of the statewide database and future energy efficiency performance reports, the Department will participate in the statewide database development process. The Department understands that DOER will assume a leadership role in the development of the database.

Finally, GJC has requested that the Program Administrators be required to collect and report to the Council certain program participant data by census tract or zip code (GJC Brief at 18-20). In response, the Program Administrators raise privacy concerns and question the value of such data given the cost of collection (Program Administrator Reply Brief at 28). The record is not sufficiently developed on this issue to allow the Department to make informed findings. We encourage the parties to address GJC's recommendations regarding data collection as part of the statewide database development process in an attempt to reach a consensus recommendation for Council review (Program Administrator Reply Brief at 28).

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[55] As noted in D.P.U. 11-120-A, Phase II at 12-13, the Department will convene a working group to address details associated with the content and form of the information to be included in the Plan-Year Report and Three-Year Term Report, and the timing of the filing of these reports.

d. Non-Energy Impacts

Non-energy impacts are a well established component of the program cost-effectiveness analyses conducted by the Program Administrators. Guidelines § 3.4.4.1(b)(ii). In our Orders approving the 2010 to 2012 three-year plans, the Department directed the Program Administrators to undertake studies that evaluate non-energy impacts to ensure that updated and more reliable values will be developed in time for inclusion in the cost-effectiveness analyses in their subsequent three-year plans. Electric Three-Years Plans Order at 130-131; Gas Three-Year Plans Order at 121. Many of the non-energy impacts included in the Three-Year Plans are the result of studies that the Program Administrators took to comply with this directive (Exh. Comm-1, at 76).

The Attorney General suggests that the manner in which the Program Administrators applied some of their proposed non-energy impacts (i.e., with variations across programs and sectors) may be inappropriate and, accordingly, requests the Department to investigate whether they should be treated uniformly (Attorney General Brief at 10). The non-energy impact study examined the benefits to low-income and other residential customers of non-energy impacts (Exh. Comm-1, App. N at 421-24, 428, 431-435). The study determined that the magnitude of the benefit of non-energy impacts may differ based on demographic variables (Exh. Comm-1, App. N at 421-24, 428, 431-435). Further, our Guidelines acknowledge that, as it relates to the low-income customer sector, it is acceptable to single out low-income customers as a class when considering non-energy impacts. See Guidelines §§ 3.4.4.1(b)(ii), 3.4.4.2(b)(ii).

The Program Administrators have complied with the Department's directives regarding updating the non-energy impacts (see Exh. Comm-1, at 76; Section IV.C.2.c, above). Accordingly, with the exception of the non-energy impacts addressed in Section VII.D.3, below, the Department accepts the non-energy impacts as proposed. Although we will not open an

investigation into non-energy impacts as suggested by the Attorney General, we do expect, as part of the EM&V framework, that the Program Administrators and stakeholders will be diligent in identifying those non-energy impacts that merit further study.

e. Conclusion

As discussed above, the Department approves the Program Administrators' proposed EM&V framework. Further, with the exception of the non-energy impacts addressed in Section VII.D.3, below, the Department accepts the Program Administrators' proposed updates to the non-energy impacts. Although we will not investigate non-energy impacts further at this time, we expect, as part of the EM&V framework, that the Program Administrators and stakeholders will identify any non-energy impacts that merit further study. Finally, the Department will participate in the planning and development of the statewide database to ensure that it consistent with, and complementary to, the revised reporting protocols established in D.P.U. 11-120-A, Phase II.

V. PROGRAM ADMINISTRATOR IMPLEMENTATION COSTS

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 § 3.3.1. In authorizing energy efficiency program implementation costs, the Department is charged with ensuring that the Program Administrators have: (1) minimized administrative costs to the fullest extent practicable; and (2) used competitive procurement processes to the fullest extent practicable. G.L. c. 25, § 19(a), (b); Guidelines §§ 3.3.6, 3.3.7. In addition, the Green Communities Act requires each electric and gas Program Administrator to expend at least ten and 20 percent of their energy efficiency expenditures, respectively, on comprehensive low-income residential demand-side

management and education programs. G.L. c. 25, § 19(c). Finally, if expenditures for programs for (1) research, development, and commercialization of products or processes that are more energy efficient than those generally available, and (2) development of markets for such products and processes, including recommendations for new appliance and product efficiency standards, exceed one percent of the Statewide Plan budget, the Green Communities Act requires the Program Administrators to obtain Council authorization for such expenditures. G.L. c. 25, § 21(b)(2).

B. Program Administrators' Proposal

1. Introduction

The Statewide Plan includes energy efficiency implementation costs for the years 2013 through 2015 (Exh. Comm-1, at 31-32). These costs are summarized in Tables 5 and 6, Statewide Program Budgets, in Section XII. On a Program Administrator level, Tables 7 and 8, Program Administrator Budgets, in Section XII, identify each Program Administrator's total proposed expenditures for the period 2013 through 2015.

In December 2012, the Program Administrators submitted supplemental filings which included revised D.P.U. 08-50 Tables to correct errors contained in the Program Administrators' original D.P.U. 08-50 tables filed on November 2, 2012.[56] For certain Program Administrators,

[56] D.P.U. 12-100, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-101, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-103, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-104, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-105, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-106, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-107, Supplemental Filing, Cover Letter at 1 (December 20, 2012); D.P.U. 12-108, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-109, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-110, Supplemental Filings, Cover Letters at 1 (December 21, 2012 & December 31, 2012); D.P.U. 12-111, Supplemental Filings, Cover Letters at 1 (December 21, 2012 & December 31, 2012).

the supplemental filings included revised program expenditures. As a result, on a statewide basis, the total revised program expenditures are approximately 0.01 percent higher than the previous total.[57]

2. Program Implementation Cost Categories

The Guidelines identify five categories of program implementation costs: (1) program planning and administration ("PP&A"); (2) marketing and advertising; (3) program participant incentives; (4) sales, technical assistance, and training; and (5) evaluation and market research. Guidelines § 3.3.3. The PP&A category includes costs associated with developing program plans, including: (1) market transformation plans; (2) research and development ("R&D") (excluding R&D assigned to evaluation and market research); and (3) day-to-day program administration, including labor, benefits, expenses, materials, supplies, and overhead costs (Exh. DPU-Comm 1-4). In addition, PP&A costs include any regulatory expenses associated with energy efficiency activities, as well as costs associated with energy efficiency services that are contracted to non-affiliated companies, such as outside consultants used to prepare plans, screen programs, improve databases, and perform legal services (Exh. DPU-Comm 1-4).

The marketing and advertising category includes costs to advertise the existence and availability of energy efficiency programs and technologies and to induce customers and trade allies to participate in energy efficiency programs (Exh. DPU-Comm 1-4). The program

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[57] D.P.U. 12-100, Supplemental Filing (December 21, 2012); D.P.U. 12-101, Supplemental Filing (December 21, 2012); D.P.U. 12-103, Supplemental Filing (December 21, 2012); D.P.U. 12-104, Supplemental Filing (December 21, 2012); D.P.U 12-105, Supplemental Filing (December 21, 2012); D.P.U. 12-106, Supplemental Filing (December 21, 2012); D.P.U. 12-107, Supplemental Filing (December 20, 2012); D.P.U. 12-108, Supplemental Filing (December 21, 2012); D.P.U. 12-109, Supplemental Filing (December 21, 2012); D.P.U. 12-110, Supplemental Filings (December 21, 2012 & December 31, 2012); D.P.U. 12-111, Supplemental Filings (December 21, 2012 & December 31, 2012) ; see also Program Administrator Brief at 8.

participant incentive category is for funds that a Program Administrator pays to customers and trade allies in the form of rebates, as well as the cost of any measures installed during an audit (e.g., light bulbs, aerators, showerheads) (Exh. DPU-Comm 1-4; Tr. 4, at 731).

The sales, technical assistance, and training category includes costs expended to motivate: (1) customers to install energy efficiency products and services; (2) retailers to stock energy efficiency products; (3) trade professionals to offer energy efficiency services; and (4) manufacturers to make energy efficiency products (Exh. DPU-Comm 1-4). The sales, technical assistance, and training category also includes the cost of vendor services and supplies that are used to demonstrate the benefits of energy efficiency (Exh. DPU-Comm 1-4).

Finally, the evaluation and market research category includes costs associated with evaluation activities, including cost-effectiveness evaluation, market research, impact and process evaluation reports, tracking and reporting program inputs and outputs, and funding studies (Exh. DPU-Comm 1-4).

3. Minimization of Administrative Costs

Pursuant to the Green Communities Act, the Department must ensure that Program Administrators minimize administrative costs to the fullest extent practicable. G.L. c. 25, § 19(a), (b); Guidelines § 3.3.6. The electric Program Administrators propose to spend an average of five percent of their total energy efficiency expenditures on PP&A costs over the three-year term (Exh. Comm-40, App. C Supp. (December 21, 2012)). The gas Program Administrators propose to spend an average of 4.9 percent of their total energy efficiency expenditures on PP&A over the three-year term (Exh. Comm-40, App. C Supp. (December 21, 2012)). Tables 9 and 10: Program Administrator Program, Planning & Administration Costs by Sector, in Section XII below, summarizes each Program

Administrator's PP&A costs as a percentage of their total program expenditures for the period 2013 through 2015.

4. 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), (b). The Program Administrators state that they use competitive procurements to engage and retain contractors and vendors to perform activities including, but not limited to, audit delivery, quality control, monitoring and evaluation, marketing, and website design (Exh. Comm-1, at 93). The Program Administrators state that they intend to use additional competitive procurements over the three-year term to expand the pool of qualified program vendors, contractors, and subcontractors (Exh. Comm-1, at 93).

5. 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). In addition, the Green Communities Act requires at least 20 percent of the amount expended for gas energy efficiency programs be spent on low-income residential demand side management programs. G.L. c. 25, § 19(c). Each Program Administrator included in its Three-Year Plan filing a table that shows the percentage of its energy efficiency program expenditures that it projects to spend on low-income programs (see, e.g., Exh. NG-Electric-4, Table V.B.1).

The electric Program Administrators propose to spend an average of eleven percent of their total energy efficiency program expenditures on low-income residential demand side management and education programs over the three-year term (Exh. Comm-40). The gas Program Administrators propose to spend an average of 21 percent of their total energy

efficiency program expenditures on low-income residential demand side management and education programs over the three-year term (Exh. Comm-40). Tables 11 and 12: Program Administrator Budget Allocation to Low-Income Sector, in Section XII below, summarize each Program Administrator's low-income program expenditures as a percentage of its total program expenditures for the period 2013 through 2015.

6. Research, Development, and Commercialization Initiatives

The Green Communities Act states that, if the Program Administrators' proposed expenditures for programs for (1) research, development, and commercialization of products or processes which are more energy efficient than those generally available, and (2) development of markets for such products and processes, including recommendations for new appliance and product efficiency standards, exceed one percent of the Statewide Plan budget, they must obtain Council authorization for such expenditures. G.L. c. 25, § 21(b)(2).

The Program Administrators propose to implement three residential research and development initiatives: (1) residential lighting controls, in which the Program Administrators will test measures such as dimmers, occupancy sensors, and vacancy sensors in an effort to include this technology in the residential programs; (2) clothes dryers, in which the Program Administrators will test the potential energy savings of residential electric and gas clothes dryers; and (3) smart thermostats, in which the Program Administrators will test multiple thermostat models (Exh. Comm-1, at 226-227). These initiatives comprise approximately 0.1 percent of total program expenditures (see Exh. Comm-40).

C. Positions of the Parties

1. Program Administrators

a. Program Implementation Cost Categories

The Program Administrators argue that, as a result of efforts undertaken in the context of the D.P.U. 08-50 Working Group, program implementation costs are categorized consistently across all Program Administrators, with the exception of employee salaries and related expenses (Program Administrator Brief at 44-45, citing Exh. Comm-1, at 91; Tr. 4, at 728-730, 765). The Program Administrators maintain that for certain Program Administrators, employee labor and related expenses are included in either the PP&A category; the marketing and advertising category; the sales, technical assistance, and training category; or the evaluation and market research category, depending on the employee's responsibilities (Program Administrator Brief at 45 n.20). The Program Administrators argue that this difference is due to different historical practices, staff sizes, staff assignments, and internal tracking mechanisms, and is needed for ease of program administration (Program Administrator Brief at 45 n.20, citing Exh. Comm-1, at 91 n.21; Tr. 4, at 765-767).

b. Minimization of Administrative Costs

The Program Administrators argue that they have minimized administrative costs to the fullest extent practicable (Program Administrator Brief at 44, citing Exhs. Comm-1, at 90-93, AG-Comm 1-3, DPU-Comm 1-5, DPU-Comm 8-17, DPU-Comm 8-18, DPU-Comm 8-19, DPU-Comm 8-20). They further argue that minimization of administrative costs is primarily achieved through the Program Administrators' statewide collaborative process (Program Administrator Brief at 45). According to the Program Administrators, the collaborative process is used to coordinate: (1) program planning, and design; (2) EM&V studies; (3) statewide marketing; (4) involvement in regulatory proceedings; and (5) the development and sharing of all

best practices (Program Administrator Brief at 45, citing Exhs. Comm-1, at 91; AG-Comm 1-3). The Program Administrators contend that coordinating these activities results in economies of scale that reduce the cost for each Program Administrator (Program Administrator Brief at 45-47, citing Tr. 4, at 805-809).

The Program Administrators argue that they seek to balance the need to minimize administrative costs with the need to maintain the skilled and dedicated staff necessary to achieve the aggressive savings goals outlined in the proposed Three-Year Plans (Program Administrator Brief at 47-48, citing Exhs. Comm-1, at 91-92; AG-Comm 1-3). The Program Administrators contend that administrative costs, as a percentage of total budgets, are expected to decline over the three-year term (Program Administrator Brief at 48).

c. Competitive Procurement

The Program Administrators argue that they use competitive procurement to the fullest extent practicable (Program Administrator Brief at 49, citing Exh. Comm-1, at 93). To continue to meet this objective, the Program Administrators contend that they will: (1) issue requests for proposals ("RFPs") to engage vendors to provide energy efficiency services; (2) consider the recommendations of the Council with respect to the retention of necessary consultants; and (3) work collaboratively to ensure that energy efficiency services are procured in a manner that minimizes cost to the ratepayers, while maximizing the associated benefits of that investment (Program Administrator Brief at 49, citing Exhs. Comm-1, at 93; DPU-Comm 3-5).

d. Low-Income Program Budgets

The Program Administrators argue that their Three-Year Plans allocate sufficient funding to low-income energy efficiency programs (Program Administrator Brief at 48). The electric and gas Program Administrators state that they propose to spend eleven percent and 21 percent, respectively, of their total budgets on the low-income residential sector, in compliance with

G.L. c. 25, § 19(c) (Program Administrator Brief at 48-49, citing Exhs. Comm-1, at 90; Comm-40; Tr. 7, at 1376-1378).

e. Research, Development, and Commercialization Initiatives

The Program Administrators argue that their proposed research, development, and commercialization initiatives are not unique programs and, therefore, that the condition in G.L. c. 25, § 21(b)(2) that they must obtain Council authorization for such expenditures in excess of one percent of the Statewide Plan budget does not apply (Program Administrator Brief at 63). Even if G.L. c. 25, § 21(b)(2) did apply, the Program Administrators maintain that their proposed spending on research, development, and commercialization is below one percent of the total budget (Program Administrator Brief at 63, citing Exhs. DPU-Comm 5-6; DPU-Comm 4-3; Tr. 7, at 1526-27).

f. Updated Program Implementation Costs

The Program Administrators argue that changes to the program expenditure figures detailed in the gas and electric Term Sheets were expressly anticipated by the Program Administrators and the Council and are allowed if such changes leave the final numbers within a "reasonable, non-material bandwidth" (Program Administrator Reply Brief at 5-7, citing Exh. Comm-1, App. R). The Program Administrators argue that the budgetary modifications, a 0.01 percent increase in total, are non-material in nature and, therefore, strictly adhere to the Term Sheets adopted by the Council (Program Administrators Reply Brief at 7).

In addition, the Program Administrators contend that the Attorney General, as a voting member of the Council, voted in favor of both the Term Sheets and the Statewide Plan. Because the Term Sheets explicitly anticipate minor changes to expenditures, the Program Administrators argue that Attorney General has implicitly accepted such changes (Program Administrator Reply Brief at 5-6, citing Exhs. Comm-4; Comm-5).

2. Attorney General

The Attorney General argues that the Department should prohibit the Program Administrators from increasing their budget by $245,000 and direct them, instead, to maintain their budgets at the exact levels specified in the Term Sheets (Attorney General Reply Brief at 4-5). In response to the Program Administrators' argument that, as a voting member of the Council, she has implicitly approved of the proposed increase, the Attorney General argues that only the statewide budget and the electric and gas Term Sheets, not individual Program Administrators' Three-Year Plans, were endorsed by the Council (Attorney General Reply Brief at 3).

3. Associated Industries of Massachusetts

AIM supports the Program Administrators' proposed Three-Year Plans but argues that the Department should expect the Program Administrators' budgets to decline in all future three-year plans due to decreasing marginal returns of investments in energy efficiency (AIM Brief at 2). AIM contends such decreasing marginal returns will arise from market transformation and lack of new opportunities (AIM Brief at 2). This phenomenon, AIM argues, is a testament to the success of the Program Administrators' energy efficiency programs because it demonstrates that the basic concepts of energy efficiency are becoming mainstream and integrated into the everyday functions of the companies (AIM Brief at 2).

4. Department of Energy Resources

DOER contends that the Program Administrators' expenditure updates are appropriate and do not include substantive modifications (DOER Reply Brief at 8). DOER further argues that modifications of this nature are consistent with the Term Sheets, which allow for final numbers to fall within a "reasonable, non-material bandwidth" (DOER Reply Brief at 8, citing Exh. Comm-1, App. R).

5. Environment Northeast

ENE argues that the Department should approve the Program Administrators' expenditures as presented in the Three-Year Plans (ENE Brief at 10). ENE argues that the proposed expenditures are necessary for the Program Administrators to achieve all cost effective energy efficiency (ENE Brief at 10). ENE contends that, although the proposed expenditures will provide a modest bill impact for customers of all sectors, the proposed Three-Year Plans represents an investment in energy efficiency and will result in direct net benefits to customers (ENE Brief at 10). In addition, ENE argues that the proposed Three-Year Plans will result in indirect benefits such as job creation (ENE Brief at 10).

D. Analysis and Findings

1. Program Implementation Cost Categories

In the 2010 through 2012 three-year plan Orders, the Department directed the Program Administrators to develop consistent program implementation cost categories. Electric Three-Year Plans Order at 45; Gas Three-Year Plans Order at 42. The Department directed the Program Administrators to report on their progress towards meeting this requirement and, if necessary, to identify any unresolved issues in their next annual report. Electric Three-Year Plans Order at 45; Gas Three-Year Plans Order at 42.

With respect to the categorization of employee salaries and related expenses, the Program Administrators generally fit into two groups: (1) those Program Administrators that assign all employee salaries and related expenses to the PP&A category (i.e., Berkshire Gas, Columbia Gas, NEGC, and NSTAR Gas); and (2) those Program Administrators that assign employee salaries and related expenses to the five different cost categories, according to job function (i.e.,

National Grid (electric), National Grid (gas),[58] NSTAR Electric, WMECo, Unitil (electric), and Unitil (gas)) (Tr. 4, at 753, 757-758, 765-769).[59]

Although the assignment of employee salaries and related expenses accounts for a large difference in cost categorization, other differences also exist. For example, with respect to payments to the lead vendor and home performance contractors in the Home Energy Services core initiative, some of the Program Administrators assign these costs to the sales, technical assistance, and training category, whereas the Compact assigns similar lead vendor costs to the participant incentive and PP&A categories (Tr. 4, at 731-732). Similarly, Berkshire Gas assigns payments to the lead vendor as part of the C&I Direct Install core initiative solely to the participant incentive category, while NSTAR Electric, WMECo, NSTAR Gas, and NEGC assign these costs to both the participant incentive and marketing and advertising categories (Tr. 4, at 731-736).

The Department recognizes the significant progress that the Program Administrators have made towards consistent cost categorization. Such efforts have greatly improved the ability of the Department and other stakeholders to effectively assess the reasonableness of the Program Administrators' implementation costs. As noted above, however, there remain material differences in how the Program Administrators categorize employee salaries and related expenses as well as vendor costs and such differences complicate our review.

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58 National Grid (electric) and National Grid (gas) state that they reassigned employee salaries and related expenses from the PP&A category to the marketing and advertising category because company reorganization resulted in a change in the job function of the applicable employees (Tr. 5, at 900).

59 The Compact differs from the other Program Administrators in that it assigns 88 percent of employee salaries and benefits to the sales, technical assistance, and training category and a small portion to PP&A (Tr. 4, at 757-760, 767-769).

In order to further improve cost reporting, the Department directs the Program Administrators to develop consistent definitions and methods of assigning costs across all five program implementation cost categories. With respect to employee salaries and related expenses, the Program Administrators shall report all non-administrative employee costs in the cost category that applies to the employee's job description (i.e., consistent with the practices of National Grid(electric), NSTAR Electric, WMECo, Unitil (electric), National Grid (gas), and Unitil (gas)). With respect to the assignment of vendor costs, the Department directs the Program Administrators to develop uniform practices to the extent possible and, where limitations exist due to a Program Administrator's expense tracking system, to adopt reasonable alternative allocation methods based on cost-causation principles (i.e., the proposed allocation method should be based on the actual factors underlying the incurrence of costs). See, e.g., Bay State Gas Company, d/b/a Columbia Gas Company, D.P.U. 12-25, at 455-457 (2012), citing Cambridge Electric Light Company, D.P.U. 92-250, at 178 (1993).

The Program Administrators shall report on their progress towards meeting these requirements on or before July 31, 2014. In this report, the Program Administrators must: (1) provide a common definition of the costs assigned to each cost category; (2) explain the common practices that the Program Administrators have adopted with respect to the treatment of employee salaries and related expenses, including an explanation of how the Program Administrators assign the expenses associated with the various functions of an employee to the cost categories; (3) identify and explain any reallocation of employee labor costs into and out of the PP&A category, since plan year 2010; (4) explain the common practices that the Program Administrators have adopted with respect to treatment of vendor-related costs, including an explanation of how the Program Administrators assign the costs associated with the various

functions of a vendor to the cost categories; and (5) identify and explain any costs that are difficult to assign to one of the five cost categories.

2. Minimization of Administrative Costs

As noted above, 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(b). Consistent with our Guidelines § 3.3.6, each Program Administrator has included in its Three-Year Plans a detailed description and supporting documentation of the steps taken to minimize administrative costs (Exhs. Comm-1, at 90-93, AG-Comm 1-3, DPU-Comm 1-5, DPU-Comm 8-17, DPU-Comm 8-18, DPU-Comm 8-19, DPU-Comm 8-20).

The level of statewide collaboration in program planning, implementation, and evaluation over the last three-year term has led to economies of scale (Exh. Comm-1, at 91). We fully expect that these collaborative efforts and economies of scale will continue in the 2013 to 2015 term and beyond (Tr. 4, at 806).

As shown in Tables 9 and 10: Program Administrator Program Planning & Administration Costs by Sector, in Section XII below, each Program Administrator's PP&A costs decrease as a percentage of total Program Administrator budgets over the three-year period, 2013 through 2015 (Exh. Comm-1, at 91-93). In addition, total PP&A costs as a percentage of the statewide budget have declined when compared to total PP&A costs as a percentage of the statewide budget for the previous three-year plans. See Electric Three-Year Plans Order at 174; Gas Three-Year Plans Order at 180-181. In setting program costs, we find that the Program Administrators appropriately balanced the need to minimize PP&A costs with the need to maximize program quality and oversight (Exh. Comm-1, at 91). Based on our review, we find that each Program Administrator's Three-Year Plan is designed to minimize administrative costs to the fullest extent practicable (see, e.g., Exh. NG-Electric-4; G.L. c. 25, § 19(b)).

3. Competitive Procurement

The Department must ensure that energy efficiency programs use competitive procurement processes to the fullest extent practicable. G.L. c. 25, § 19(b). For this Three-Year Plan, each Program Administrator has competitively procured a high percentage of its program activities (see, e.g., Exh. CMA-4). Where such procurements were used, the Program Administrators have demonstrated that they were done in a manner designed to minimize costs to ratepayers (e.g., through the use of statewide RFPs and collaboration in the procurement of services) (Exh. Comm-1, at 93). Therefore, the Department finds that the Program Administrators' Three-Year Plans use competitive procurement processes to the fullest extent practicable, consistent with the requirements of G.L. c. 25, § 19(b).

4. Low-Income Program Budgets

The Green Communities Act requires electric and gas Program Administrators to spend at least ten percent and 20 percent, respectively, of their total energy efficiency budget on the low-income residential sector. G.L. c. 25 § 19(c). As shown in Tables 11 and 12: Program Administrator Budget Allocation to Low-Income Sector, each Program Administrator proposes a low-income program budget that exceeds the statutory minimums of ten and 20 percent, respectively, for electric and gas Program Administrators.[60] Accordingly, the Department finds that each Program Administrator has met the low-income budget requirements of G.L. c. 25, § 19(c).

[60] NSTAR Electric and WMECo have proposed to implement an aggregated budget, including a low-income budget (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1699). The Department addresses NSTAR Electric's and WMECo's aggregated budget proposal in Section IX.B., below.

5. Research, Development, and Commercialization Initiatives

Pursuant to the Green Communities Act, the Program Administrators' Three-Year Plans may include (1) programs for research, development and commercialization of products or processes which are more energy efficiency than those generally available; and (2) programs for development of markets for such product and processes, including recommendations for new appliance and product efficiency standards provided, however, that if the collective budget for these programs exceeds one percent of their total energy efficiency budgets, the Program Administrators must first obtain Council authorization for such expenditures. G.L. c. 25, § 21(b)(2)(iv). In D.P.U. 08-50-A, at 30-31, the Department found that all energy efficiency pilot programs, combined with the programs described in G.L. c. 25, § 21(b)(2)(iv), are subject to the one percent budget cap.

The Program Administrators' proposed Three-Year Plans do not include any pilot programs. They do, however, include certain hard-to-measure efforts such as support for the Massachusetts Technical Assessment Committee,[61] a residential lighting control study, clothes dryer evaluations, smart thermostat evaluations, and a potential initiative regarding building codes and standards (Exhs. Comm-1, at 226-227; DPU-Comm 5-6; Tr. 7, at 1435-1438, 1525-1528). Collectively, the total budget for these efforts is below one percent of the total energy efficiency budgets (Exhs. DPU-Comm 5-6, DPU-Comm 4-3, DPU-Comm 4-4; Tr. 7, at 1526-27). Accordingly, the Department finds that the Program Administrators have complied with the requirements of G.L. c. 25, § 21(b)(2).

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[61] The Massachusetts Technical Assessment Committee identifies and analyses new technologies to determine if it is appropriate to include them in energy efficiency programs (Tr. 7, at 1436).

6. Updated Program Implementation Costs

Due to issues raised by the Department and intervenors during discovery and throughout the evidentiary hearings, the Program Administrators filed updated D.P.U. 08-50 Tables on December 21, 2012 (see ENE-Comm 1-2; Tr. 9, at 1646). In aggregate, changes contained in the tables result in an approximate 0.01 percent increase in the proposed budgets (see n.57, above).

The Attorney General argues that Department should not approve the budget increase and, instead require the Program Administrators to adopt budgets at the exact levels specified in the Term Sheets (Attorney General Reply Brief at 4-5). The Program Administrators and DOER argue that the budget increases are appropriate and are fully consistent with the Term Sheets, which allow changes that fall within a "reasonable, non-material bandwidth" (Program Administrator Reply Brief at 5-7, citing Exh. Comm-1, App. R; DOER Reply Brief at 8, citing Exh. Comm-1, App. R).

In each filing the Program Administrators detailed the individual changes made to their D.P.U. 08-50 tables and the rationale for such modifications. The updated tables account for limited corrections, reallocations for greater consistency, and efforts to ensure common assumptions.[62] Based on the above, the Department finds that the revised D.P.U. 08-50 Tables

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62 D.P.U. 12-100, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-101, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-103, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-104, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-105, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-106, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-107, Supplemental Filing, Cover Letter at 1 (December 20, 2012); D.P.U. 12-108, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-109, Supplemental Filing, Cover Letter at 1 (December 21, 2012); D.P.U. 12-110, Supplemental Filings, Cover Letters at 1 (December 21, 2012 & December 31, 2012); D.P.U. 12-111, Supplemental Filings, Cover Letters at 1 (December 21, 2012 & December 31, 2012).

are appropriate and that the subsequent budget increase is small and falls within a reasonable, non-material bandwidth as permitted by the gas and electric Term Sheets.

E. Conclusion

Based on our review, the Department concludes that each Program Administrator's proposed Three-Year Plan minimizes administrative costs and uses competitive procurement processes to the fullest extent practicable, in compliance with G.L. c. 25, § 19(a), (b). See also Guidelines §§ 3.3.6, 3.3.7. In addition, each electric and gas Program Administrator proposes to spend at least ten percent and 20 percent, respectively, of its energy efficiency program budget on low-income residential demand side management and education programs, in compliance with G.L. c. 25, § 19(c). The Program Administrators have also proposed to spend less than one percent of their total budgets on research, development, and commercialization initiatives. G.L. c. 25, § 21(b)(2). Finally, the Department finds that the changes to the Program Administrators' proposed budgets that were the result of necessary updates to the D.P.U. 08-50 Tables were reasonable and consistent with the gas and electric Term Sheets approved by the Council.

The Program Administrators have greatly improved the consistency with which they report program implementation costs; however, additional progress must be made, consistent with the Department's directives above. For the reasons discussed above, the Department approves each Program Administrator's program implementation costs budget for the 2013 through 2015 Three-Year Plan term.[63]

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63 All Program Administrators except National Grid (electric) currently collect energy efficiency related pension costs through their EES (Tr. 5, at 890-892; Tr. 6, at 1109). National Grid (electric) collects energy efficiency related pension costs through its pension adjustment factor ("PAF") (Tr. 5, at 905-906). During the course of these proceedings, NSTAR Electric and NSTAR Gas indicated that they were recovering energy efficiency related pension costs through both the EES and the PAF (Tr. 4,

VI. PERFORMANCE INCENTIVES

A. Introduction

Pursuant to the Green Communities Act, the Three-Year Plans include a proposed mechanism designed to provide an incentive to distribution companies based on their success in meeting or exceeding certain performance goals.[64] G.L. c. 25, § 21(b)(2)(v). The Program Administrators propose a performance incentive mechanism for each year of the Three-Year Plans (Exh. Comm-1, at 253-257, App. J).

Section 3.6.2 of the Department's Guidelines outlines principles for the design of a performance incentive mechanism. Pursuant to the Guidelines, an incentive mechanism 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 in which 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 Guidelines specify that the amount of funds available for performance incentives should be kept

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at 770-771). The Department will address NSTAR Gas' and NSTAR Electric's prior collection of energy efficiency related pension costs in a separate proceeding. See NSTAR Electric Company and NSTAR Gas Company, D.P.U. 12-113, at 1 n.1 (2012). As part of that proceeding, the Department will consider the appropriate rate mechanism to recover energy efficiency related pension costs (i.e., the EES or the PAF). Depending on the outcome of that investigation, the budgets approved in this Order may change.

64 The Compact does not receive a performance incentive and, therefore, did not propose one here. D.P.U. 08-50-A, at 51.

as low as possible in order to minimize the costs to electricity and gas customers, while still providing appropriate incentives for the Program Administrators. Guidelines §§ 3.6.3, 3.6.2.

For the first three-year plans, the Department approved a performance incentive mechanism that included the following elements: (1) a statewide incentive pool and an allocation of the statewide pool to the individual Program Administrators;[65] (2) three components (i.e., a savings component, a value component, and performance metrics) through which the Program Administrators could earn incentive payments;[66] (3) an allocation of the statewide incentive pool to the three components; and (4) payout rates for the savings and value components. Electric Three-Year Plans Order at 93-99, 124-125; Gas Three-Year Plans Order at 81-90, 114-115.

B. Program Administrators' Proposed Incentive Mechanism

1. Statewide Incentive Pool

The Program Administrators propose a statewide incentive pool equal to $25.8 million in 2013, $26.7 million in 2014, and $27.5 million in 2015 for electric Program Administrators, and $5.0 million in 2013, $5.4 million in 2014, and $5.5 million in 2015 for gas Program

65 The allocation of the statewide incentive pool to individual Program Administrators was based on each Program Administrator's contribution to the statewide savings goals. Electric Three-Year Plans Order at 94; Gas Three-Year Plans Order at 79-80.

66 The incentive payment that a Program Administrator can receive through the savings and value components is based on the total benefits and net benefits, respectively, that can be achieved through implementation of a Program Administrator's energy efficiency programs. Electric Three-Year Plans Order at 97, 124-125; Gas Three-Year Plans Order at 84, 114-115. The performance metrics component is intended to provide an incentive for Program Administrators to undertake specific efforts that are expected to provide benefits beyond those captured in the calculation of total benefits or net benefits. Electric Three-Year Plans Order at 97, 124-125; Gas Three-Year Plans Order at 84, 114-115.

Administrators (Exh. Comm-6 (Supp. 2)).[67] The final design-level statewide incentive pool can vary up or down based on the level of annual statewide energy savings proposed by the Program Administrator and approved by the Department (Exh. Comm-1, at 253).

2. Incentive Mechanism Structure

The Program Administrators' proposed incentive mechanism is based on the performance incentive model approved by the Department for the first three-year plans.[68] One notable change is that the proposed statewide incentive pool for 2013 to 2015 (as a percentage of spending and of savings) is less, on a relative basis, than the statewide incentive pool approved for 2010 to 2012 (Exh. Comm-1, at 248; Tr. 1, at 151).

The structure of the proposed incentive mechanism includes three components: (1) the savings mechanism; (2) the value mechanism; and (3) performance metrics.[69] The total performance incentive is the sum of those three components, and the proposed allocation model results in a similar distribution of each Program Administrator's incentives among the three components (Exh. Comm-1, at 250; Tr. 1, at 152).

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67 The target incentive pool for each plan year is equal to approximately five percent of the statewide annual budgets (before taxes) for electric Program Administrators and three percent (before taxes) for gas Program Administrators (Exh. Comm-40).

68 WMECo and NSTAR Electric seek approval to calculate performance incentives based on their combined performance (Exh. Comm-1, at 273). The Department addresses this proposal in Section IX.B, below.

69 The Program Administrators filed their proposed performance metrics on December 4, 2012, more than one month after Three-Year Plans were filed with the Department (Exh. Comm-7, App K (Supp.) (December 4, 2012). Given the late filing of the metrics and the 90-day review period specified in G.L. c. 25, § 21(d)(2), the Department deferred consideration of the performance metrics to a separate proceeding (Tr. 2, at 374). This review will include an investigation of the ways in which performance metrics can encourage the Program Administrators to address barriers to achieving all available cost-effective energy efficiency.

The Program Administrators propose to collect performance incentive dollars through each component at a predetermined payout rate when their evaluated performance falls between threshold and exemplary levels (Exh. Comm-1, at 250). Design-level performance is defined as 100 percent of a Program Administrator's projected benefits and net benefits (Exh. Comm-6 (Supp. 2)). Exemplary performance is defined as 125 percent of design-level performance, while threshold performance requires the achievement of 75 percent of design-level performance, by component (Exh. Comm-1, at 250). The cap for the total possible performance incentive earned across all components is 125 percent of design-level performance (Exh. Comm-1, at 250). The proposed payout rates for both the savings and value mechanism components remain constant for all Program Administrators for each year of the Three-Year Plans (Exh. Comm-1, at 250).

3. Savings and Value Mechanism Payout Rates

The Program Administrators propose to allocate the statewide incentive pool for the savings and value components using common payout rates, based on the dollar value of benefits and net benefits, respectively (Exh. Comm-1, at 250; Tr. 1, at 151). The statewide performance incentive pool is adjusted based on actual statewide goals relative to the Council-recommended targets (Exh. Comm-1, at 254; Tr. 1, at 152). At a statewide level, 56 percent of the incentive has been allocated to the savings mechanism and 35 percent of the incentive has been allocated to the value mechanism[70] (Exh. Comm-1, at 254).

To determine the payout rate under the savings mechanism, the adjusted statewide incentive pool is multiplied by 56 percent; the product then is divided by the projected dollar value of statewide benefits (Exh. Comm-1, at 254). The resulting payout rate for the savings

[70] The remainder of the statewide incentive pool, nine percent, is allocated to performance metrics (Exh. Comm-1, at 254). In the event that the Department does not approve performance metrics, this remainder will be reallocated to the savings and value mechanism (Exhs. Comm-1, at 253; DPU-Comm 5-2, see also n.69, above).

mechanism is $0.0061959 per dollar of benefit for electric Program Administrators and $0.0066166 per dollar of benefit for gas Program Administrators (Exh. Comm-6 (Supp. 2)). To determine the payout rate under the value mechanism, the adjusted statewide incentive pool is multiplied by 35 percent; the product is then divided by the projected dollar value of statewide net benefits (Exh. Comm-1, at 254). The resulting payout rate for the value mechanism is $0.0052515 per dollar of net benefit for electric Program Administrators and $0.0084021 per dollar of net benefit for gas Program Administrators (Exh. Comm-6 (Supp. 2)).

For Program Administrators with savings goals in excess of the targets recommended by the Council, the threshold level of performance is measured relative to the Council's targets, as opposed to the Program Administrator's actual goal (Exh. Comm-1, at 254).[71] For Program Administrators with savings goals at or below the Council's recommendations, the threshold level of performance is measured relative to the Program Administrator's actual goal (Exh. Comm-1, at 254).[72]

C. Positions of the Parties

1. Program Administrators

The Program Administrators assert that the proposed performance incentive mechanism is consistent with the Green Communities Act, the Council-approved Term Sheets, and Department precedent (Program Administrator Brief at 76-86, Program Administrator Reply Brief at 9). In developing the proposed incentive mechanism, the Program Administrators argue

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71 For these Program Administrators, threshold performance is based on achieving 75 percent of the Council's savings targets in 2013 and 2014, and 80 percent in 2015 (Exh. Comm-1, at 254; Tr. 1, at 152).

72 For these Program Administrators, threshold performance is based on achieving 75 percent of their design-level savings goals in 2013 and 2014, and 80 percent in 2015 (Exh. Comm-1, at 254).

that they appropriately applied the design principles outlined in Section 3.6.3 of the Guidelines, reviewed previous Department orders, and studied incentive pools available in other states (Program Administrator Brief at 82-83, citing Exh. DPU-Comm 5-4). The Program Administrators maintain that the proposed performance incentive mechanism is based on the mechanism approved by the Department for the last three-year plans and is "well-functioning in the field" (Program Administrators Brief at 78, 83, citing Exh. DPU-Comm 5-4).

With respect to the amount of available incentive funds, the Program Administrators state that initial drafts of the Three-Year Plans were presented to the Council with a proposed incentive pool that was directly proportional to the 2010 to 2012 incentive pool, using total proposed savings as the benchmark (Program Administrator Brief at 83, citing Exh. DPU-Comm 5-4). Through subsequent negotiations with the Council, the Program Administrators state that the overall pool was adjusted downward, when compared to the pool in effect for 2010 to 2012 (Program Administrator Brief at 83, citing Exh. DPU-Comm 5-4). As a result, the Program Administrators argue that the incentive pool represents "the consensus view of the lowest amount of funds that could be made available for the performance incentive mechanism, after consideration of the other principles in the Guidelines" (Program Administrator Brief at 83, citing Exh. DPU-Comm 5-4).

In addition, the Program Administrators argue that the proposed payout rates are consistent with Department precedent (Program Administrator Brief at 84). The Program Administrators contend that, consistent with Department precedent, the application of the proposed payout rates for the savings and value mechanisms is uniform across all Program Administrators and across all plan years (Program Administrator Brief at 84-85, citing Electric Three-Year Plans Order at 113; Gas Three-Year Plans Order at 102). The Program

Administrators also maintain that, consistent with Department precedent, the proposed statewide payout rates for the savings and value mechanisms will ensure that Program Administrators receive the same incentive payment for each dollar of total and net benefits achieved (Program Administrator Brief at 85, citing Electric Three-Year Plans Order at 114; Gas Three-Year Plans Order at 103). According to the Program Administrators, the proposed payout rates provide all Program Administrators with the same incentive to pursue energy efficiency opportunities, which maximizes total benefits as efficiently as possible (Program Administrator Brief at 85). The Program Administrators further argue that because the proposed payout rates remain constant over the plan term, their proposal is consistent with the Department's stated objective to review performance over the entire three-year term (Program Administrator Brief at 85).

With respect to the effect of budget increases on the proposed incentive mechanism, the Program Administrators argue that the proposed increases in program budgets should not be accompanied by reductions in performance incentives as suggested by the Attorney General (Program Administrator Reply Brief at 7-9). In particular, the Program Administrators argue that the budget increases in question are non-material and that the Council-approved Term Sheets explicitly allow for non-material adjustments to the proposed budgets without triggering a corresponding adjustment to performance incentives (Program Administrator Reply Brief at 8-9). The Program Administrators assert that any budget increases will already lead to a reduction in the expected earned performance incentive because, as costs increase, expected net benefits will be reduced (Program Administrator Reply Brief at 8). Finally, the Program Administrators contend that the proposed 0.01 percent increase in program budgets is more than outweighed by a separate 2.4 percent increase in total benefits (Program Administrator Reply Brief at 9).

2. Attorney General

The Attorney General argues that, if the Department approves the proposed budget increases that result from revisions to the D.P.U. 08-50 Tables, it should reduce the related increases to the statewide performance incentive pool at the design-level (Attorney General Initial Brief at 6-8). The Attorney General argues that performance incentives are not tied to any element of the Term Sheets such as budgets but rather are a component of a negotiated "package deal" between the Council and the Program Administrators (Attorney General Reply Brief at 5-6). Accordingly, the Attorney General argues that the design-level performance incentive pool is fixed and cannot be modified to reflect any changes in the final budgets (Attorney General Reply Brief at 6-7).

The Attorney General argues that, consistent with the Approval Resolution, the maximum performance incentive pool at the design-level is $96 million (Attorney General Reply Brief at 6, citing Approval Resolution). The Attorney General contends that neither the Term Sheets nor the Approval Resolution endorse any variation in the annual performance incentive pool at the design-level (Attorney General Reply Brief at 6-7). Accordingly, the Attorney General argues that the Program Administrators' proposal to implement a maximum performance incentive pool at the design-level in excess of $96 million is inappropriate and that the Department should, instead, approve the design-level incentive pool for 2013, 2014, and 2015 as detailed in the Term Sheets (Attorney General Reply Brief at 7).

3. Environment Northeast

ENE argues that the Department should approve the Program Administrators' proposed performance incentive mechanism because it is: (1) similar to the performance incentive mechanism approved by the Department for the first three-year plans; (2) approved and supported by the Council; (3) consistent with the Council's recommendations; and (4) consistent

with the Department's Guidelines (ENE Initial Brief at 12-14). In particular, ENE argues that, because the proposed incentive structure sets an economic incentive that focuses on savings and benefits, rather than dollars spent, the performance incentive mechanism is consistent with the mechanism approved for the 2010 to 2012 three–year plans (ENE Initial Brief at 13). ENE contends that the proposed incentive mechanism appropriately incents and rewards the Program Administrators for delivering energy savings and economic benefits (ENE Initial Brief at 13-14).

4. Department of Energy Resources

DOER argues that the design-level performance incentive pool is an "absolute ceiling" that is not subject to any increases due to changes in Program Administrator budgets (DOER Reply Brief at 6-7). DOER argues that language permitting an "ebb and flow" in the performance incentive pool was intentionally omitted from the Term Sheets (DOER Reply Brief at 6-7). Accordingly, DOER argues that the statewide incentive pool, as approved in the Term Sheets, should be approved as the maximum amount the Program Administrators can earn for design-level performance (DOER Reply Brief at 6-7).

D. Analysis and Findings

1. Introduction

The Green Communities Act states that the Three-Year Plans shall include a proposed mechanism that provides incentives to Program Administrators based on their success in meeting or exceeding the goals in the plans. G.L. c. 25, § 21(b)(2). As described above, the Program Administrators propose a performance incentive mechanism that includes: (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; and (4) incentive thresholds and caps (Exh. Comm-1, at 250). Each of these elements is discussed below.

On January 31, 2013, the Department issued D.P.U. 11-120-A, Phase II. With that Order, the Department approved updated Guidelines implementing a revised energy efficiency regulatory process that is both more efficient and consistent with the three-year planning construct envisioned by the Green Communities Act. D.P.U. 11-120-A, Phase II. Certain directives in that Order and updated Guidelines are relevant to our review of performance incentives in this proceeding.

Pursuant to the updated Guidelines § 3.6.4, all Program Administrators must calculate design-level incentive payments based on projections of performance for the entire three-year term, not based on annual projections. D.P.U. 11-120-A, Phase II at 7-8. Further, both electric and gas Program Administrators will collect performance incentives in the EES at the design-level during the three-year term. D.P.U. 11-120-A, Phase II at 13 n.16. Finally, the Department will review Program Administrators' performance and their proposed performance incentives based on the entire three-year term of the plan and not for each individual year. See D.P.U. 11-120-A, Phase II at 13; Guidelines § 3.6.4.

2. Proposed Incentive Mechanism

a. Statewide Incentive Pool

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., Fitchburg Gas and Electric Light Company, d/b/a Unitil, D.P.U. 08-126 (2009); 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); Western Massachusetts Electric Company,

D.P.U. 08-118 (2009). In the instant Three-Year Plans, the proposed statewide incentive pool is approximately five percent of the electric Program Administrators' budgets for each year, before taxes, and approximately three percent of the gas Program Administrators' budgets for each year, before taxes (Exh. Comm-40).

The electric Program Administrators propose a statewide performance incentive pool of approximately $80 million for 3,705,972,000 kWh of total electric savings,[73] or approximately $0.02 per kWh of savings (Exh. Comm-40). The gas Program Administrators propose a statewide performance incentive pool of approximately $16 million for 72,016,040 therms of total gas savings, or approximately $0.22 per therm of savings (Exh. Comm-40). In relation to savings goals, the total amount of funds proposed for the 2013 to 2015 statewide incentive pool is less than the amount approved for the 2010 to 2012 incentive pool (Exh. Comm-1, at 248; Tr. 1, at 150-151).

As a result of revisions to the D.P.U. 08-50 Tables discussed in Section V, above, the total proposed statewide incentive pool of $96,058,754[74] is $14,622 higher than the Program Administrators' original proposal (Exhs. Comm-6; Comm-6 (Supp. 2)). The Attorney General and DOER argue that the statewide incentive pool should not be increased because the absolute level of the pool was established based on negotiations between the Council and Program Administrators (Attorney General Reply Brief at 6-7; DOER Reply Brief at 6-7). [75] Conversely,

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73 Because the Compact does not collect a performance incentive, the electric savings goal here does not include the savings goal of the Compact.

74 The proposed incentive pool is $80,056,269 for electric Program Administrators and $16,002,485 for gas Program Administrators (Exhs. Comm-1, App. C-1; Comm-1, App. C-2; Comm-1, App. J-1; Comm-1, App. J-2).

75 The Attorney General's argument related to revised budget figures is discussed in Section V, above. We note that revisions to the budget do not affect the statewide

the Program Administrators argue that Term Sheets approved by the Council allow for non-material revisions to the D.P.U. 08-50 Tables, including performance incentives (Program Administrator Reply Brief at 8-9).

The statewide incentive pool is calculated based on the Program Administrators' savings goals (see Exh. Comm-6 (Supp. 2)). The Statewide Plan explains that "the design[-]level incentive pool can vary up or down from these amounts based on the relative level of annual energy savings, statewide, in the Three-Year Plan compared to the annual savings goal set for design purposes" (Exh. Comm-1, at 253). Given the link between the statewide incentive pool and projected savings, the Program Administrators' revisions to the D.P.U. 08-50 Tables correctly increase the total statewide incentive pool by $14,622 over the three-year term; a 0.015 percent increase over the original proposal. Based on the above, the Department finds that proposed $14,622 increase to the statewide incentive pool is appropriate.

The proposed statewide incentive pool, as a percentage of Program Administrators' budgets, is less than the design performance incentive levels that the Department has previously approved. See D.P.U. 08-126; D.P.U. 08-129; D.P.U. 08-117; D.P.U. 08-118. In addition, the proposed statewide incentive pool, as a proportion of savings goals, is less than that approved in the first three-year plans (Exh. Comm-1, at 248; Tr. 1, at 150-151). The Council approved the statewide incentive pool and the method of calculation (see Exhs. Comm-1, at 253; Term Sheets Resolution; Approval Resolution). Finally, the proposed method is the same as the method approved in the first three-year plans. See Electric Three-Year Plans Order at 87-88; Gas Three-Year Plans Order at 79-80. For these reasons, we find that the Program Administrators have kept performance incentive funds as low as possible consistent with our Guidelines (see

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incentive pool; rather they affect only the value component of the incentive mechanism by changing net benefits and the corresponding payout rate.

Exhs. Comm-1, at 253, App. R; Comm-4). Guidelines § 3.6.3. Accordingly, the Department approves the Program Administrators' proposed statewide incentive pool, as revised (Exh. Comm-6 (Supp. 2), App. J).

b. Performance Incentive Mechanism Components

The proposed performance incentive mechanism contains three components by which Program Administrators can earn incentive payments: (1) a savings mechanism; (2) a value mechanism; and (3) performance metrics (Exh. Comm-1, at 250-257). The Program Administrators propose to allocate the statewide incentive pool to each component as follows: (1) 56 percent to the savings mechanism; (2) 35 percent to the value mechanism; and (3) nine percent to performance metrics (Exh. Comm-1, at 254).[76]

The Department has previously approved performance 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; Electric Three-Year Plans Order at 124; Gas Three-Year Plans Order at 114. In addition, the Council has endorsed the proposed components and the allocation of incentive dollars to each component (Exhs. Comm-1, at App. R; DPU-Comm-5-4).

For these reasons, the Department finds that savings and value components of the Program Administrators' proposed performance incentive mechanism are reasonable and consistent with the Green Communities Act and Department precedent. As discussed above, the Department will consider the proposed performance metrics in a separate proceeding. (See, n.6,

[76] As noted above, in the event that the Department does not approve performance metrics, the performance metric amount will be reallocated to the savings and value mechanisms (Exhs. Comm-1, at 253; DPU-Comm-5-2, see also n.69, above).

above). Accordingly, with the exception of the proposed performance metrics, the Department approves the design of the Program Administrators' proposed incentive mechanism.

c. Savings and Value Mechanism Payout Rates

The Program Administrators' proposed incentive mechanism includes the application of uniform statewide payout rates for the savings and value components. These payout rates are constant for the three-year term (Exh. Comm-1, at 250; Tr. 1, at 151).

The Green Communities Act mandates that, even though Program Administrators will administer their energy efficiency programs individually, program implementation should, to the extent possible, occur consistently and seamlessly across the Commonwealth. G.L. c. 25, § 21(b)(1). The Guidelines further provide that an incentive mechanism should encourage energy efficiency program design that will best achieve the energy goals of the Commonwealth, in particular the goals described in the Green Communities Act. Guidelines § 3.6.2.

The proposed statewide payout rates for the savings and value components ensure that Program Administrators across the Commonwealth receive the same incentive payment for each dollar of total and net benefits achieved. We find that the application of uniform statewide payout rates for the savings and value components is consistent with the goals of the Green Communities Act and Department precedent. See, e.g., D.P.U. 08-126; D.P.U. 08-129; D.P.U. 08-117; D.P.U. 08-118; Electric Three-Year Plans Order at 124; Gas Three-Year Plans Order at 114. Further, because the payout rates do not vary by year, we find that the payout rates are consistent with the Department's Guidelines established in D.P.U. 11-120-A, Phase II. Finally, the Council has endorsed the method used to calculate the proposed payout rates for the savings and value components (Exh. Comm-1, App. R). For these reasons, the Department

approves the method used to calculate the statewide savings and value components payout rates, as proposed.[77]

d. Adjusted Threshold Incentive Level

As described above, the Program Administrators propose to collect performance incentive dollars through each component of the mechanism at a predetermined payout rate when their evaluated performance falls between threshold and exemplary levels. For Program Administrators with savings goals in excess of the Council's targets in a given year, the threshold level of performance is based on achieving 75 percent of Council's savings target in 2013 and 2014, and 80 percent in 2015 (Exh. Comm-1, at 254; Tr. 1, at 152). Alternatively, for Program Administrators with savings goals at or below the Council's targets, the proposed threshold performance is 75 percent of the Program Administrator's design-level savings target in 2013 and 2014, and 80 percent in 2015 (Exh. Comm-1, at 254). Consequently, Program Administrators with goals in excess of the Council's targets have slightly lower effective threshold levels for the savings and value components than Program Administrators with savings goals at or below the Council's targets (Exh. DPU-Comm 5-3).

The Program Administrators' proposed adjusted threshold incentive level does not affect any other area of the proposed performance incentive model, including the statewide incentive pool (Exh. DPU-Comm 5-3). In addition, the Program Administrators' proposed adjustment

[77] In Section VII, below, the Department determined that certain benefits associated with non-energy impacts should not be included in the calculation of cost-effectiveness. The Program Administrators are required to submit compliance filings to incorporate this change. Our findings also require the removal of these benefits from the projections of benefits and net benefits upon which the performance incentive is based. Therefore, the Program Administrators shall include this updated information in their compliance filings as it applies to the performance incentive mechanism. In addition, because payout rates will change, each Program Administrator must file a revised performance incentive mechanism model, including all tables. Consistent with our directives in Section IX.B below, NSTAR Electric and WMECo shall submit separate revised models.

does not change budgets or the corresponding funds collected from ratepayers at the design-level. Program Administrators with higher goals will not be unduly penalized with an increased risk of failing to achieve the minimum threshold level of performance. For these reasons, the Department approves the Program Administrators' adjusted threshold levels for the savings and value components of the performance incentive mechanism for those Program Administrators with savings targets in excess of the Council's goals. Below we discuss how this adjustment should be implemented in order to ensure consistency with the updated Guidelines and the Department's directives to modify the actual threshold level in Section VI.D.2.e. D.P.U. 11-120-A, Phase II.

e. Updated Guidelines

At the time of the Program Administrators' Three-Year Plan filings, the Department had yet to release its Order in D.P.U. 11-120-A, Phase II. Now, however, because the Department has issued its Order and updated Guidelines, certain aspects of the Program Administrators' proposed performance incentive mechanism must be revised so that it is consistent with the new regulatory approach outlined in D.P.U. 11-120-A, Phase II (see Tr. 1, at 175-183).

First, we note that, every two years, the Program Administrators undertake a regional Avoided Energy Supply Cost Study ("Avoided Cost Study") that updates the avoided cost factors used to calculate the dollar benefits resulting from the Program Administrators' energy savings (Tr. 1, at 179). Currently, the Program Administrators incorporate the most recent avoided cost factors in their three-year plans through mid-term modification filings and annual reports. Holding all else constant, when the avoided cost factors change, the dollar value of benefits and net benefits change, which consequently changes the savings and value payout rates. These mid-term or annual adjustments result in payout rates that vary over the three-year term

and, therefore, are inconsistent with the Department's Guidelines, which require a three-year implementation and review of performance incentives. Guidelines § 3.6.4.

Discussions about the next Avoided Cost Study are in preliminary stages (Tr. 1, at 179). Due to the complexity of the issues involved, including the regional nature of the study, the Department will defer making any findings here on how to address Avoided Cost Study updates. Instead, the Department will consider how best to apply future avoided cost factors consistent with the updated Guidelines, in the context of our streamlining working group. D.P.U. 11-120-A, Phase II at 15.

Second, we note that performance metrics are annual in nature and, to date, have only been proposed by the Program Administrators for the 2013 plan year (Exh. Comm-7, App. K (Supp.)). The Department will conduct a separate proceeding to investigate the proposed performance metrics (see Tr. 2, at 374). As part of that proceeding, the Department will consider how performance metrics should be amended such that they are consistent with the updated Guidelines.

Third and finally, we note that the proposed threshold levels at which Program Administrators begin to collect performance incentives vary over the three-year term and, therefore, are inconsistent with the updated Guidelines § 3.6.4 (Tr. 1, at 171-183). As proposed, the threshold performance level for the savings and the value components increases from 75 percent of design-level in 2013 and 2014, to 80 percent of design-level in 2015. Increasing the threshold level requires Program Administrators to meet a higher percentage of their goal before they can begin earning incentive revenues in the third plan year.

In order to maintain consistency with the updated Guidelines § 3.6.4 and in consideration of the Council's desire to implement a more stringent performance threshold, the Department

directs the Program Administrators to implement a revised performance incentive model with one combined threshold level for the entire three-year term. This model should be implemented according to the steps described in Appendix: Revised Threshold Level Calculation, Section XIII. The model is derived by (1) calculating the weighted average of the proposed annual threshold percentages, based on the annual statewide savings targets set by the Council (rounded to four decimal places); and (2) adjusting this calculated statewide three-year threshold level by multiplying it by the ratio of the Council's savings targets to the Program Administrator's savings goals (rounded to four decimal places).[78]

Table 3, below shows the revised three-year threshold levels for the Program Administrators using the method outlined in Appendix: Revised Threshold Level Calculation, Section XIII. For the 2013 to 2015 Three-Year Plan term, each Program Administrator must achieve the threshold performance, described in Table 3, in order to receive performance incentive dollars for the savings and value components of the mechanism.

[78] The Department recognizes that a weighted average calculation will not result in a whole number. Given the magnitude of potential benefits and net benefits from which the savings and value components are based, even a hundredth of a percent has the potential to result in significant incentive dollars. For these reasons, we find that it is appropriate to round the threshold to the hundredth of a percent (i.e., four decimal places).

Table 3: Revised Performance Incentive Threshold Levels by Program Administrator for Combined Three-Year Term[79]

Program Administrator	Revised Calculated Threshold
Unitil (electric)	76.72 percent
Berkshire Gas	76.72 percent
NEGC	76.72 percent
Unitil (gas)	76.72 percent
National Grid (electric)	75.65 percent
NSTAR Electric	76.32 percent
WMECo	72.46 percent
National Grid (gas)	75.16 percent
NSTAR Gas	76.25 percent
Columbia Gas	70.78 percent

E. Conclusion

For the reasons discussed above, the Department approves the Program Administrators' proposed: (1) statewide incentive pool; (2) structure of the performance incentive mechanism for the savings and value components; (3) calculation of the savings and value components payout rates; and (4) adjusted threshold levels. The Department directs the Program Administrators to recalculate revised performance incentive threshold levels consistent with the method described in Appendix: Revised Threshold Level Calculation, Section XIII. On or before February 21, 2013, each Program Administrator shall file a compliance filing with a revised performance incentive mechanism model, including all tables, consistent with the directives contained in this Order.

[79] Sources: Exhs. Comm-6 (Supp. 2); DPU-Comm 5-2, Att.; RR-DPU-14.

VII. PROGRAM COST-EFFECTIVENESS

A. Introduction

The Green Communities Act requires the Department to ensure that the energy efficiency programs included in the Three-Year Plans are cost-effective (i.e., that program benefits exceed program costs) or are less expensive than supply. G.L. c. 25, § 21(a), (b)(3). The Guidelines establish, among other things, the method by which the Department determines the cost-effectiveness of energy efficiency programs. Guidelines § 3.4. The Department evaluates program cost-effectiveness using the TRC test, which includes all benefits and costs associated with the energy system and program participants. Guidelines § 3.4.3. A program is cost-effective if the cumulative present value of its benefits[80] are equal to or greater than the cumulative present value of its costs.[81] Guidelines § 3.4.3.1.

As discussed in Section IV.C, above, non-energy impacts are non-resource benefits that accrue specifically to program participants; they are components of program-participant benefits included in the TRC test. See Guidelines §§ 3.4.4.1(b)(ii), 3.4.4.2(b)(ii). We address, below, whether three of the approximately 30 non-energy impacts are appropriate to include in the TRC test (see RR-AG-11).[82]

In addition, Program Administrators must include net savings impact factors in their energy efficiency program cost-effectiveness analyses.[83] See Energy Efficiency Guidelines,

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80 Program benefits are addressed in Guidelines § 3.4.4.

81 Program costs are addressed in Guidelines § 3.4.5.

82 In Section IV.C, above, the Department addresses all other issues associated with the non-energy impacts that the Program Administrators propose to include in their cost-effectiveness analyses.

83 Net savings impact factors take into account: (1) free ridership rates, which represent the percentage of savings attributable to program participants who would have installed the

D.P.U. 11-120, Phase I, at 7-9 (2011). These factors are applied to program gross savings to determine the net savings that can be attributed to the implementation of a program. See D.P.U. 11-120, Phase I, at 7-9. We also address, below, whether the Program Administrators have appropriately applied these factors in their cost-effectiveness analyses.

B. Program Administrators' Proposal

1. Reclassification of Programs as Core Initiatives

The Program Administrators' Three-Year Plans each include: (1) two programs for the residential sector (i.e., Whole House and Products); (2) one program for the low-income sector (i.e., Whole House); and (3) two programs for the C&I sector, (i.e., Retrofit and New Construction) (Exh. Comm-1, at 22-23). Each program includes several core initiatives.[84] The core initiatives had been classified as programs in the 2010 to 2012 three-year plans (Exhs. Comm-1, at 22-23; DPU-Comm 4-1(a)). The Program Administrators state that they propose to consolidate the core initiatives into larger program offerings in order to (1) provide greater implementation flexibility to address shifts in market conditions and consumer demand

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measures in the absence of program intervention; and (2) spillover rates, which represents the percentage of savings attributable to program participants and non-participants who install measures outside of a program as a result of their participation in, or awareness of, the program, respectively (Exh. Comm-1, App. N at 17). See also D.P.U. 11-120, Phase I, at 9.

84 The proposed core initiatives in each program are: (1) Residential Whole House - New Construction, Home Energy Services, and Multi-Family Retrofit core initiatives; (2) electric Residential Products - Lighting, Consumer Products, and Heating and Cooling – HVAC core initiatives; (3) gas Residential Products - Heating and Hot Water core initiative; (4) electric Low-income Whole House - New Construction, Single Family, and Multi-Family core initiatives; (5) gas Low-Income Whole House Program - Single Family and Multi-Family core initiatives; and (6) C&I Retrofit - Large Retrofit and Direct Install core initiatives (Exh. Comm-1, at 119-141, 143-167, 174-192, 194).

throughout the three-year period, and (2) minimize customer confusion regarding product offerings (Exh. DPU-Comm 4-1(a); Tr. 2, at 280-287).

The Program Administrators evaluated program cost-effectiveness at the reclassified program level, using the TRC test (Exhs. Comm-1, at 75, App. B; DPU-Comm-4-1(a)). Tables 13 and 14: Program Administrator Cost-Effectiveness, by Sector, Section XII, summarizes the results of these analyses.

2. Non-Energy Impacts

As discussed above, non-energy impacts are a component of the benefits included in the TRC test. Guidelines §§ 3.4.4.1(b)(ii), 3.4.4.2(b)(ii). Issues were raised in the proceedings concerning three non-energy impacts: (1) the National Security non-energy impact, which is associated with the benefit of "reducing the need for foreign energy imports, thereby increasing national security;" (2) the Refrigerator/Freezer Turn-In non-energy impact, which is associated with the benefit of avoiding landfill space, recycling plastics and glass, and incinerating insulating foam; and (3) the Economic Development non-energy impact, which measures the macroeconomic impacts (e.g., jobs, business sales, gross state product, and real disposable income) of the energy efficiency programs (Exhs. Comm-1, App. N at 416-436; RR-AG-4, at 1-2).

3. Application of Net Savings Impact Factors

As discussed above, the Program Administrators must include net savings impact factors in their analyses of program cost-effectiveness. See D.P.U. 11-120, Phase I, at 7-9. The Program Administrators propose to apply these factors equally to both the savings and incremental costs associated with the installed measures (Tr. 2, at 274-280). The Program Administrators state that they applied this same treatment in the 2010 to 2012 three-year plans (Tr. 2, at 274-280).

C. Positions of the Parties

1. Program Administrators

The Program Administrators assert that they have appropriately screened their energy efficiency programs for cost-effectiveness using the TRC test and that each proposed program has a benefit-cost ratio greater than one (Program Administrator Brief at 33, 38). Accordingly, the Program Administrators claim that the programs are cost-effective (Program Administrator Brief at 33, 38).

In response to the Attorney General's objection to including the National Security non-energy impact as a program benefit in the cost-effectiveness analyses, the Program Administrators assert that the benefit is not applied to all participants (Program Administrator Reply Brief at 12-13). Instead, the Program Administrators assert that they only include the benefits that flow to Massachusetts oil end-use customers (Program Administrator Reply Brief at 12). Because the benefits that are expected to accrue will be limited to Massachusetts energy consumers, the Program Administrators argue that the National Security non-energy impact is not a societal benefit (Program Administrator Reply Brief at 12-13).

In response to the Attorney General's argument that, when determining program cost-effectiveness, free ridership rates should be applied to savings, but not to ratepayer-funded costs, the Program Administrators contend that their proposed approach (1) has been approved by the Department, and (2) is supported by the Council (Program Administrator Reply Brief at 18-22). The Program Administrators argue that because high levels of free-ridership in a program affect the program's benefits and savings, such high levels will affect their program planning processes and investment decisions and, therefore, program costs (Program Administrator Reply Brief at 21-22).

Addressing GBREB's concerns about thermal imaging, the Program Administrators assert that their thermal imaging and building research efforts are small and are undertaken primarily by DOER, with scrupulous attention given to customer privacy (Program Administrator Reply Brief at 34-35). The Program Administrators argue that GBREB advocates for the rights of property owners at the expense of securing all cost-effective energy efficiency resources (Program Administrator Reply Brief at 35).

2. Attorney General

The Attorney General asserts that the National Security non-energy impact is a societal benefit (i.e., a benefit that accrues to society as a whole, but not to the energy system or to program participants) (Attorney General Brief at 9-10). Accordingly, the Attorney General argues that it does not belong in the TRC test (Attorney General Brief at 9-10).

In addition, the Attorney General argues that the Program Administrators incorrectly apply free-ridership rates when determining program cost-effectiveness (Attorney General Brief at 17-18). The Attorney General asserts that, while these rates are appropriately applied to program savings, applying them equally to costs means that a program's cost-effectiveness will not be affected even if the program has a high level of free-ridership. The Attorney General argues that a program's cost-effectiveness must reflect high free-ridership rates in order to signal that program modifications may be necessary (Attorney General Brief at 18).

3. Conservation Law Foundation

CLF argues that as natural gas use for electricity generation increases, natural gas efficiency programs are likely to create a gas demand-reduction-induced price effect ("DRIPE"), similar to electric DRIPE (CLF Brief at 4).[85] CLF requests that the Department direct the

[85] LEAN supports CLF's position on this issue (LEAN Reply Brief at 2).

Program Administrators and the Council to take steps to calculate benefits associated with gas DRIPE (CLF Brief at 5).

CLF asserts that natural gas programs are adversely affected by the artificially low cost of carbon dioxide used in the TRC test (CLF Brief at 5).[86] CLF recommends, therefore, that the Department assign a new value for the avoided cost of carbon dioxide to be used in the TRC test (CLF Brief at 6).[87]

4. Department of Energy Resources

DOER notes that, in the first three-year plans, the Department approved the practice of applying net savings impact factors to both program savings and costs (DOER Reply Brief at 3). DOER contends that if the Department seeks to modify the manner in which the Program Administrators apply these impact factors, it should do so in the context of the ongoing D.P.U. 11-120, Phase I investigation (DOER Reply Brief at 3).

5. Greater Boston Real Estate Board

GBREB takes issue with the Program Administrators' thermal imaging and building scoring practices (GBREB Brief at 5-9). Specifically, GBREB asserts that thermal imaging infringes on the civil liberties and privacy rights of Massachusetts' citizens (GBREB Brief at 7). In addition, GBREB argues that building scoring is unproven as an accurate measure for classifying buildings for energy purposes (GBREB Brief at 7). GBREB asserts that, from an appraisal perspective, the use of these techniques could adversely affect the value of a building (GBREB Brief at 8). Based on these privacy concerns and possible adverse market impacts,

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86 LEAN supports CLF's position on this issue (LEAN Reply Brief at 2).

87 This issue is the subject of an ongoing Department investigation, D.P.U. 11-120, Phase I. Accordingly, the Department will not address this issue here.

GBREB argues the Department should find any program using thermal imaging or building scoring to be not cost-effective (GBREB Brief at 9).

D. Analysis and Finding

1. Introduction

The Department is required to review all energy efficiency programs contained in the Three-Year Plans for cost-effectiveness. G.L. c. 25, § 21(b)(3). This 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).

2. Reclassification of Programs as Core Initiatives

The Program Administrators' proposal to reclassify certain programs as core initiatives and then consolidate them into larger program offerings is intended to (1) increase program implementation flexibility during the three-year term, and (2) minimize customer confusion by presenting customers with a more easily understood set of program offerings (Exh. DPU-Comm 4-1(a); Tr. 2, at 280-287). The Program Administrators developed this proposal in consultation with the Council and it is designed to enhance program flexibility and improve the customer experience (see Tr. 2, at 281). Accordingly, we find that the Program Administrators' proposed reclassification and consolidation of core initiatives into larger program offerings is appropriate.

3. Non-Energy Impacts

As stated above, the TRC test includes only those benefits and costs that are associated with the energy system and program participants; non-energy impacts are appropriately included as a program benefit if they accrue specifically to participants. Guidelines § 3.4.3. The benefits associated with the National Security non-energy impact (associated with the benefit of increasing national security through reduced need for foreign energy imports), the

Refrigerator/Freezer Turn-In non-energy impact (associated with the benefit of avoiding landfill space, recycling plastics and glass, and incinerating insulating foam), and the Economic Development non-energy impact (associated with the macroeconomic impacts of the energy efficiency programs), however, do not accrue specifically to program participants, but are realized more broadly by all citizens of the Commonwealth (Exhs. Comm-1, App. N at 416-436; RR-AG-4, at 1-2). Accordingly, the Department finds that these non-energy impacts are not appropriate for inclusion in the TRC test. Guidelines § 3.4.3. The Program Administrators shall remove these non-energy impacts from their cost-effectiveness analyses. Each Program Administrator is directed to submit a compliance filing with revised cost-effectiveness analyses by February 21, 2013.[88]

4. Application of Net-Savings Impact Factors

In determining program cost-effectiveness, the Program Administrators propose to apply net savings impact factors to both program savings and program costs (Tr. 2, at 274-280). This treatment was applied by the Program Administrators in the cost-effectiveness analyses in their last three-year plans (Tr. 2, at 275-276). Accordingly, for the purpose of determining program cost-effectiveness in these Three-Year Plans, we approve the Program Administrators' proposed treatment of net savings impact factors.

In light of the concerns raised by the Attorney General about the need to signal program modifications in cases of high free-ridership, the Department finds that this issue merits further examination going forward (Attorney General Brief at 17-18). As discussed above, the Department currently is investigating issues related to the determination of net savings impact

[88] The record in this proceeding demonstrates that each proposed program remains cost-effective when these non-energy impacts are removed from the cost-effectiveness analyses (see, e.g., Exhs. NSTAR-Electric-5; NG –Gas-5).

factors in D.P.U. 11-120, Phase I. The Department will address the appropriate application of net savings impact factors in the context of that investigation.

5. Gas DRIPE

CLF asserts that gas energy efficiency programs are likely to create a gas DRIPE effect and requests that the Department direct the Program Administrators and the Council to take steps to calculate benefits associated with gas DRIPE. The determination of avoided cost factors such as DRIPE takes place in the context of the Avoided Cost Study Group, a regional group composed of representatives from the Program Administrators, state agencies, and other stakeholders (see Exh. Comm-1, App. O; see also Program Administrator Reply Brief at 33-34). Biennially, the Avoided Cost Study Group commissions a report that provides estimates of avoided costs for use in energy efficiency cost-effectiveness analyses -- the next update to the avoided costs will be completed during 2013, to be applied to program year 2014. The appropriate venue to explore issues associated with DRIPE benefits, including gas DRIPE, is the Avoided Cost Study Group. See, e.g., Electric Three-Year Plans Order at 52-53.

6. Privacy Concerns and Market Impacts

GBREB asserts that the practice of thermal imaging infringes on the privacy rights of customers. In addition, GBREB argues that building scoring is not an accurate measure for classifying buildings and, therefore, could harm building values (GBREB Brief at 7). From this, GBREB argues that the Department should find that all energy efficiency programs using such techniques are not cost-effective (GBREB Brief at 9).

GBREB offers no legal authority to support its privacy concerns or factual support for its contention that building scoring harms property values. Nonetheless, the Department does not take customer privacy concerns lightly. Before thermal imaging was conducted, town officials were informed and notice was published in local newspapers, letting customers know that they

could opt-out (Tr. 4, at 663). In addition, the thermal imaging at issue reveals heat loss only at a building's shell but shows nothing of the building's interior (Tr. 4, at 665). Accordingly, there is no basis to conclude that programs using thermal imaging or building scoring techniques are not cost-effective.

7. Conclusion

The Department finds that each Program Administrator has demonstrated that, based on the projected benefits and costs (as modified herein), all proposed energy efficiency programs are cost-effective (Exhs. NSTAR-Electric-5; NSTAR-Gas-5; NG-Electric-5; NG-Gas-5; FGE-Electric-5; FGE-Gas-5; BSG-5; Berkshire-5; NEGC-5; CLC-5; WMECo-5). See G.L. c. 25, § 21(a), (b)(3).

VIII. FUNDING SOURCES

A. Introduction

For electric Program Administrators, the Green Communities Act identifies four funding sources for energy efficiency programs: (1) revenues collected from ratepayers through the SBC; (2) proceeds from the Program Administrators' participation in the FCM; (3) proceeds from cap and trade pollution control programs, including but not limited to the Regional Greenhouse Gas Initiative ("RGGI"); and (4) other funding as approved by the Department, including revenues to be recovered from ratepayers through a fully reconciling funding mechanism (i.e., EES). G.L. c. 25, §§ 19(a), 21(b)(2)(vii). In approving other funding for electric Program Administrators, the Department must consider: (1) the availability of other

private or public funds;[89] (2) whether past programs have lowered the cost of electricity to consumers; and (3) the effect of any rate increases on consumers. G.L. c. 25, § 19(a).

For gas Program Administrators, the Green Communities Act does not indentify multiple funding sources for energy efficiency programs. It does, however, require the individual gas Three-Year Plans to include a fully reconciling funding mechanism to collect energy efficiency program costs from ratepayers (i.e., EES). G.L. c. 25, § 21(b)(2)(vii); see also G.L. c. 25, § 21(d)(2). In approving funding for gas Program Administrators, the Department considers the effect of any rate increases on consumers. D.P.U. 08-50-A at 56; Guidelines § 3.2.2.2.

The Guidelines specify the manner in which other funding sources may be collected from gas and electric ratepayers through the EES. Guidelines §§ 3.2.1.6, 3.2.2.1. The Green Communities Act requires electric and gas Program Administrators to allocate revenues from all funding sources to their customer sectors in proportion to each class' contribution to those funds. G.L. c. 25, § 19(c). Further, the Guidelines require electric Program Administrators to allocate revenue from the SBC, FCM, and cap and trade pollution control programs to their customer sectors in proportion to each class' kWh consumption. Guidelines §§ 3.2.1.2 through 3.2.1.4.

Gas and electric Program Administrators must include in their Three-Year Plans information regarding bill impacts. D.P.U. 08-50-A at 56; Guidelines §§ 3.2.1.6.3, 3.2.2.2. In D.P.U. 08-50-B at 20, the Department adopted a bill impact model that was intended to provide a consistent method for Program Administrators to calculate and present the bill impacts associated with their proposed energy efficiency plans.[90] In D.P.U. 08-50-D at 10-11, the

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89 Gas and electric Program Administrators must include in their Three-Year Plans a description of all other sources of funding the Program Administrators considered to fund their energy efficiency programs. Guidelines §§ 3.2.1.5, 3.2.1.6.3, 3.2.2.1, 3.2.2.2.

90 The D.P.U. 08-50 bill impact model was developed by a working group convened by the Department. See D.P.U. 08-50-D.

Department concluded that the bill impact model had deficiencies that preclude its use in analyzing energy efficiency bill impacts. In particular, the Department concluded that the D.P.U. 08-50 bill impact model, because of its focus on long-term savings,[91] was not an appropriate means to satisfy the Department's statutory mandate to consider the effect of any rate increases on residential and commercial customers. D.P.U. 08-50-D at 11. Instead, the Department determined that the statutory requirement is best satisfied through a traditional bill impact analysis which, with its short-term perspective that isolates the effect of a proposed change in the EES, will provide an accurate and understandable assessment of the changes to customers' bills.[92] D.P.U. 08-50-D at 11. Accordingly, the Department directed the Program Administrators to submit traditional bill impact analyses for customers who do not participate in the energy efficiency programs (i.e., non-participants) under the following four scenarios, comparing:

- the current (e.g., 2012) EES to the proposed EES for the first year of the three-year plan (e.g., 2013);
- the EES from the first year of the three-year plan (e.g., 2013) to the proposed EES for the second year of the three-year plan (e.g., 2014);
- the EES from the second year of the three-year plan (e.g., 2014) to the proposed EES for the third year of the three-year plan (e.g., 2015); and
- the current EES (e.g., 2012) to the proposed EES for the third year of the three-year plan (e.g., 2015).

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91 The D.P.U. 08-50 bill impact model was intended to take into account the savings from energy efficiency measures that accrue over the lifetime of the measure. See D.P.U. 08-50-D at 5.

92 As applied to energy efficiency, a traditional bill impact analysis shows: (1) the existing EES; (2) the proposed EES; (3) the percentage change in the EES; (4) the total dollar change in total monthly bills at various consumption levels; and (5) the percentage change in total monthly bills at various consumption levels. See D.P.U. 08-50-D at 4.

D.P.U. 08-50-D at 12. The Department also directed the Program Administrators to submit bill impacts for participants for whom consumption is reduced for three levels of savings -- low, medium, and high -- and to provide a description of how these savings levels were determined. D.P.U. 08-50-D at 12. The cost-effectiveness analysis identifies the longer-term costs and savings that will accrue to both participants and non-participants over time (see Section VII.D.3, below).

B. Program Administrators' Proposal

1. Non-EES Revenues

a. Introduction

Each electric Program Administrator proposes to project revenues from non-EES funding sources[93] for each year of the Three-Year Plan in the following manner: (1) projected SBC revenues are calculated as the product of the statutorily mandated SBC of $0.0025 per kWh[94] and projected sales for the applicable year; (2) projected FCM revenues are calculated as the product of the clearing prices of the FCM in the applicable year and the energy efficiency capacity that is designated by ISO-NE as an FCM capacity resource for the year; and (3) projected RGGI revenues are calculated by multiplying projected RGGI clearing prices by a projection of allowances sales in each RGGI auction, with 80 percent of the revenues allocated to electric efficiency programs (see, e.g., Exhs.NG-Electric-4; see also Comm-1, at 95; DPU-Comm 4-13). The Program Administrators propose to allocate SBC, FCM, and RGGI revenues to each customer sector in proportion to each class' kWh consumption (Exh. Comm-1, at 260).

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93 Issues associated with non-EES revenues apply only to electric Program Administrators. Gas Program Administrators obtain all of their energy efficiency funding through the EES. G.L. c. 25, § 19(b); G.L. c. 25, § 21(b)(2)(vii); see also G.L. c. 25, § 21(d)(2).

94 See G.L. c. 25, § 19(a).

Table 17: Electric Program Administrator Funding Sources, in Section XII, lists the projected revenues from non-EES funding sources for each Program Administrator.

The calculations of projected SBC and RGGI revenues are straightforward. The electric Program Administrators' projected FCM revenues are discussed further, below.

b. FCM Revenues

Each electric Program Administrator's projection of FCM revenues is based on its strategy in bidding capacity savings from its energy efficiency resources into the FCM (Exh. Comm-1, at 94).[95] FCM auctions are conducted almost three years in advance of when capacity is to be delivered; the auction cycle begins with a "show-of-interest" submission almost four years before the capacity-delivery period (Exh. DPU-Comm 4-11; Tr. 7, at 1461-1500).[96] The electric Program Administrators state that this time lag creates significant uncertainty regarding: (1) the energy efficiency resources that actually will be installed before the commitment period (and, thus, whether they will achieve 100 percent of the savings estimated in the plan); and (2) the results of studies used to calculate achieved savings which will be conducted three or four years in the future (and which may reduce the FCM-eligible capacity) (Exh. DPU-Comm 4-11; Tr. 7, at 1461-1500). In addition, there are punitive financial repercussions in the FCM for failing to deliver the capacity supply obligations (Exh. DPU-Comm 4-11).

In addition to being affected by the time lag and financial penalties, the electric Program Administrators state that their bidding strategy is designed not to compromise system reliability

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95 The Program Administrators propose to apply all proceeds from the FCM to energy efficiency programs (Exh. DPU-Comm 4-12).

96 For example, the Program Administrators state that for the FCM auction covering the commitment period June 2013 through May 2014, they were required to submit show-of-interest filings in mid-2009 (Exh. DPU-Comm 4-11).

by bidding more energy efficiency savings into the FCM than they actually can deliver (Exh. DPU-Comm 4-11; Tr. 7, at 1461-1500). For these reasons, the amount of energy efficiency capacity savings bid into the FCM is less than the total FCM-eligible capacity savings the Program Administrators project to achieve (Exh. DPU-Comm 4-11).

2. EES Revenues

a. Introduction

The electric Program Administrators propose to collect their projected budgets through their EERF tariffs, calculated for each year of the three-year term, as the difference between (1) the projected budget for the applicable year, and (2) projected revenues from non-EES funding sources for that year (see, e.g., Exh. NG-Electric-4). The electric Program Administrators calculate separate EESs for their residential, low-income, and C&I customer classes (see, e.g., Exh. NG-Electric-4).

The gas Program Administrators propose to collect their projected budgets through their LDAC tariffs (Exh. Comm-1, at 259-260). The gas Program Administrators calculate separate EESs for their residential and C&I sectors to be applied to therm sales to firm ratepayers (Exhs. Comm-1, at 259; DPU-Comm 4-10).

b. Other Funding Sources

As noted above, gas and electric Program Administrators must include in their Three-Year Plans a description of all other sources of funding the Program Administrators considered to fund their energy efficiency programs. Guidelines §§ 3.2.1.5, 3.2.2.1. The Program Administrators, citing an absence of viable other funding sources, do not project any revenues from outside funding sources during the upcoming three-year term (Exh. Comm-1,

at 96).[97,98] The Program Administrators state, however, that they will continue to aggressively pursue other sources of funding (Exh. DPU-Comm 4-8; Tr. 7, at 1501-1502).

c. Bill Impacts

Gas and electric Program Administrators must include in their Three-Year Plans detailed information regarding bill impacts. Guidelines §§ 3.2.1.6.3, 3.2.2.2. Each Program Administrator submitted bill impacts for non-participants under the four scenarios identified in D.P.U. 08-50-D (see, e.g., Exh. NG-Electric-6; see also Exh. Comm-1, at 110-111).

To calculate bill impacts for program participants, the Program Administrators developed statewide estimates to approximate savings for each customer class (Exh. Comm-1, at 111).[99] The participant bill impacts are based on average monthly usage levels (pre-participation) under the first and fourth scenarios identified in D.P.U. 08-50-D (see, e.g., Exh. NG-Electric-6; see also Exh. Comm-1, at 110-111).

C. Positions of the Parties

1. Program Administrators

The Program Administrators argue that their FCM bidding strategies are designed to strike an appropriate balance between maximizing revenues through participation in the FCM

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97 The electric Program Administrators state that, unlike when the 2010 to 2012 three-year plans were developed, there is a "low likelihood that a major new federal 'cap and trade' program will be implemented in the foreseeable future" (Exh. Comm-1, at 96).

98 The Program Administrators state that they provided additional details regarding their efforts to secure outside funding through sources such as federal, state, and private grants in their 2011 mid-term modification filings as well as their 2009 annual reports (Exh. DPU-Comm 4-8).

99 For residential and C&I participants, the Program Administrators estimated low, medium, and high levels of savings. For residential gas non-heating, low-income, and street lighting participants, the Program Administrators identified only a single level of savings because these participants typically receive a comprehensive energy efficiency approach in which all potential measures are installed (Exh. Comm-1, at 111).

and avoiding the risks associated with FCM penalties for failure to deliver their capacity-supply obligations (Program Administrator Brief at 58-59, citing Tr. 7, at 1478-1480). The Program Administrators contend that the reconciling nature of the EES ensures that customers are made whole if their FCM revenue projections are overly conservative and the Program Administrators ultimately collect additional FCM revenues (Program Administrator Brief at 58-59, citing Tr. 7, at 1478-1480).

The Program Administrators maintain that the bill impacts show their focus to acquire all cost-effective energy efficiency resources with the lowest reasonable customer contribution (Program Administrator Brief at 53). The Program Administrators assert that they sought to balance the value of the expected long-term benefits of energy efficiency with short-term customer bill impacts (Program Administrator Brief at 53, citing Exh. Comm-1, at 110-111). The Program Administrators argue that the analyses show that the implementation of the proposed Three-Year Plans will result in acceptable bill impacts, particularly given the anticipated $9 billion in economic benefits from these plans and the persistence of savings to be achieved (Program Administrator Brief at 53). Finally, the Program Administrators contend that the Council unanimously approved the bill impacts, finding that they would be "moderately low" (Program Administrator Brief at 52, citing Exh. Comm-5, at 3).

Regarding the Attorney General's request to create a pre-determined bill impact standard, the Program Administrators argue that neither the Green Communities Act nor Department precedent imposes a ceiling on energy efficiency costs based on a prescribed bill impact (Program Administrator Reply Brief at 16). The Program Administrators argue that bill impacts must remain within the jurisdiction of the Department to use its expertise to weigh multiple

factors that vary between Program Administrators and rate classes in determining the reasonableness of bill impacts (Program Administrator Reply Brief at 16-17).

2. Attorney General

The Attorney General notes that there are large differences between the energy efficiency capacity savings for which the electric Program Administrators project to receive FCM payments and the total energy efficiency capacity savings that would be eligible to receive FCM payments (Attorney General Brief at 16-17, citing Tr. 7, at 1464-1465). Because increased FCM revenues reduce the need to collect energy efficiency funds from ratepayers, the Attorney General urges the Department to require the electric Program Administrators to take appropriate steps to maximize their FCM revenues (Attorney General Brief at 16-17).

Contrary to the assertions of the Program Administrators, the Attorney General argues that the Council did not approve bill impacts, either statewide or for individual Program Administrators (Attorney General Reply Brief at 3). The Attorney General argues that, instead, the Council stated that minimizing customer bill impacts is an essential consideration (Attorney General Reply Brief at 3, citing Approval Resolution).

The Attorney General argues that, as program budgets continue to grow, the Department should take action to cap bill impacts (Attorney General Brief at 12). In this regard, the Attorney General recommends that the Department direct Program Administrators to: (1) establish a bill impact standard and take corrective actions (such as program budget cuts and/or program curtailments) when this standard is exceeded; or (2) impose a two percent bill impact cap similar to the caps currently in effect for other Department-approved reconciling mechanisms[100] (Attorney General Brief at 13).

[100] The Attorney General argues that other Department-approved reconciling mechanisms have caps on the level of costs that may be recovered (e.g., the targeted infrastructure

3. Department of Energy Resources

DOER acknowledges that the Program Administrators must balance various factors in bidding energy efficiency resources into the FCM but states that the Program Administrators should take all reasonable steps to maximize FCM revenues (DOER Reply Brief at 3-4). DOER requests that the Department "maintain a watchful eye" on the Program Administrators to ensure that they are not overly conservative in this regard and that they strike the right balance between the need to maximize revenue opportunities and legitimate reliability concerns (DOER Reply Brief at 4).

With regard to bill impacts, DOER contends that the Three-Year Plans set ambitious energy savings goals, at sensible program costs, and with low-to-moderate bill impacts (DOER Reply Brief at 10). According to DOER, the Three-Year Plans will provide lasting benefits to ratepayers, businesses, and the Commonwealth (DOER Brief at 13). DOER asserts that, through the plan development process, the electric budgets have been reduced by an estimated $118 million while, at the same time, savings goals were increased (DOER Brief at 13-14).

4. Environment Northeast

ENE argues that the electric Program Administrators should take appropriate steps to maximize their FCM revenues, taking into account the uncertainty associated with bidding resources years in advance (ENE Reply Brief at 6). ENE adds, however, that establishing a new Department standard for FCM bidding procedures is beyond the scope of these proceedings (ENE Reply Brief at 6).

ENE observes that, during the Council process, the Program Administrators worked closely with the Council to strike the appropriate balance between developing budgets that would

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replacement factor and revenue decoupling adjustment factor) (Attorney General Brief at 12-13, citing Tr. 7, at 1514-1515).

achieve high savings while moderating customer bill impacts (ENE Brief at 12). According to ENE, based on the bill impacts analyses, customers who do not participate in energy efficiency programs are likely to see small-to-moderate bill impacts as a result of the Three-Year Plans (ENE Brief at 12). ENE contends that customers who participate in energy efficiency programs, even at a low level, likely will see bill reductions (ENE Brief at 12). ENE recommends, therefore, that the Department find that the bill impacts are reasonable and approve the EESs necessary to enable the Program Administrators to implement their plans (ENE Brief at 12-13).

In response to the Attorney General's request to create a bill impact standard, ENE contends that it may be helpful to establish a set of criteria for how the Department will consider the effect of bill impacts before approving additional ratepayer funding for energy efficiency (ENE Reply Brief at 5). According to ENE, however, any such investigation is beyond the scope of these proceedings (ENE Reply Brief at 5).

5. Green Justice Coalition

GJC argues that the bill impacts from the Three-Year Plans are small given the significant net benefits that will accrue to participants and non-participants over many years (GJC Brief at 7). GJC maintains that the Department should review costs and savings over the long term and recognize that energy efficiency spending differs from other charges that are reviewed by the Department under traditional bill impact analyses (GJC Brief at 9).[101]

[101] GJC requests that the Department reconsider the manner in which we will review bill impacts (GJC Brief at 9; see also D.P.U. 08-50-D at 9-12). We decline to reconsider our decision in D.P.U. 08-50-D here.

D. Analysis and Findings

1. Non-EES Revenues

As discussed above, the electric Program Administrators project to receive revenues through three non-EES funding sources: the SBC, RGGI proceeds, and participation in the FCM. The Department finds that each electric Program Administrator projected SBC revenues over the three-year term in a reasonable manner, using Department-approved methods for projecting sales over the term (Exh. DPU-Comm 4-9; Tr. 7, at 1495-1496). In addition, the Department finds that each electric Program Administrator projected RGGI revenues using reasonable assumptions regarding RGGI auctions during the upcoming term (Exhs. Comm-1, at 95; DPU-Comm 4-13; see, e.g., NG-Electric-4).

With respect to projected FCM revenues, the Department recognizes that it is challenging for electric Program Administrators to project with precision the level of planned energy efficiency resources that will be installed before and during each FCM commitment period during the three-year term (see Exh. DPU-Comm 4-11; Tr. 7, at 1461-1500). This fact and the uncertainty associated with the results of evaluation studies that will be conducted between the time of an FCM auction and the associated commitment period, make it difficult to project the actual energy efficiency capacity savings that will be eligible to participate as an FCM resource during the term. In light of these uncertainties, and considering the penalty provisions of the FCM, the Department concludes that the bidding strategies adopted by the electric Program Administrators strike an appropriate balance between maximizing FCM revenues and minimizing undue risk (see Section VII.B.1.b, above). Accordingly, the Department finds that the Program Administrators' projected FCM revenues over the three-year term are reasonable (see Table 17: Electric Program Administrator Funding Sources, in Section XII, below).

The FCM includes provisions that provide the electric Program Administrators with opportunities to adjust, during the three-year term, the level of energy efficiency capacity savings participating in the market (Tr. 7, at 1461-1500). To minimize the bill impacts associated with acquiring all cost-effective energy efficiency resources (both in this and in upcoming three-year terms), it is essential that Program Administrators take all reasonable steps to maximize FCM revenues during the term. The Department will convene a technical session to assist the Department and stakeholders in better understanding the electric Program Administrators' FCM bidding strategies, including any factors that may impede their ability to maximize the level of energy efficiency capacity savings that can participate in the FCM.

2. EES Revenues

a. Calculation of EES

The Green Communities Act requires each Three-Year Plan to include a fully reconciling funding mechanism, such as the EES. G.L. c. 25, § 21(b)(2)(vii); see also G.L. c. 25, § 21(d)(2). The Guidelines specify the manner in which revenue from the EES may be collected from ratepayers. Guidelines §§ 3.2.1.6, 3.2.2. The Department finds that the manner in which the electric Program Administrators propose to calculate their EESs for each customer sector is consistent with the Guidelines (see Section VIII.B.2.a, above). Similarly, the Department finds that the manner in which the gas Program Administrators propose to calculate their EESs for the residential and C&I customer sectors is consistent with the Guidelines (see Section VIII.B.2.a, above).

b. Other Funding Sources

The Green Communities Act requires the Department, in approving electric Program Administrator funding through a source such as the EES, to consider the availability of other private or public funds. G.L. c. 25, § 19(a)(3)(ii). Although the Green Communities Act does

not contain a similar requirement for gas Program Administrators, the Guidelines require gas three-year plans to include a description of all other sources of funding that were considered to fund the energy efficiency programs. Guidelines § 3.2.2.1.

Since the prior three-year plans were approved, the gas and electric Program Administrators have provided several updates on their efforts to obtain outside funding. See 2009 Energy Efficiency Annual Reports, D.P.U. 10-88 through D.P.U. 10-98; see also 2011 Mid-term Modifications, D.P.U. 10-140 through D.P.U. 10-150. The Program Administrators have demonstrated that outside funding sources for energy efficiency investments are scarce (see Section VII.B.2.b, above). Accordingly, we find that the Program Administrators have adequately considered the availability of other private or public funds. G.L. c. 25, § 19(a)(3)(ii). The Department expects, however, that the Program Administrators will continue to aggressively identify and pursue all potential sources of outside funding.

c. Cost of Electricity to Consumers

The Green Communities Act requires the Department, in approving electric Program Administrator funding through a source such as the EES, to consider whether past programs have lowered the cost of electricity to consumers. G.L. c. 25, § 19(a)(3)(iii). Program participants and non-participants alike benefit from lower electricity costs from energy efficiency program savings (Tr. 7, at 1503-1505). In particular, program participants benefit through lowered levels of consumption, and participants and non-participants benefit though reduced wholesale electricity prices and avoided investments in transmission and distribution costs (Tr. 7, at 1503-1505). Accordingly, the Department finds that past energy efficiency programs have lowered electricity costs to consumers. G.L. c. 25, § 19(a)(3)(iii).

3. Bill Impacts

The Department considers the effect of bill impacts when approving customer funds to support energy efficiency programs. D.P.U. 08-50-A at 58;[102] Guidelines §§ 3.2.1.5, 3.2.1.6.3, 3.2.2.1, 3.2.2.2; see G.L. c. 25, § 19(a). The Department has determined that a bill impact analysis with a short-term perspective that isolates the effect of a proposed change in the EES is appropriate in this regard as it provides an accurate and understandable assessment of the change that will actually appear on customers' bills. D.P.U. 08-50-D at 11-12. We have recognized, however, that when considering the reasonableness of a short-term bill impact, it is important also to look at the long-term benefits that energy efficiency will provide. See D.P.U. 08-50-D at 11-12.

Unlike some other activities that cause increases in rates, investments in energy efficiency will result in direct customer benefits, in terms of reduced consumption and reduced costs, which will persist for the lives of the energy efficiency measures installed. D.P.U. 08-50-A at 58; Electric Three-Year Plans Order at 88; Gas Three-Year Plans Order at 74. On a statewide basis, the Three-Year Plans are expected to provide net benefits of approximately $6.2 billion, resulting in approximately three dollars in benefits for every dollar spent, over the lifetime of the efficiency measures installed (see Exh. Comm-40). Total lifetime energy savings associated with the proposed energy efficiency programs will cost roughly $0.04 per kWh for electric efficiency programs and $0.55 per therm for gas efficiency programs, which is below the

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[102] Although the Green Communities Act refers to the "effect of any rate increases," analyses of bill impacts provide a more meaningful indication of the effects of energy efficiency than analyses of rate impacts because, while investments in energy efficiency result in increases to the distribution rates, they result in savings on the entire bill. Electric Three-Year Plans Order at 88; Gas Three-Year Plans Order at 74.

cost of the traditional energy resources that would otherwise need to be purchased by consumers (Exh. Comm-1, at 17-18).

Significant additional benefits will also 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 25,602,440 short tons. In addition, since 2011, energy efficiency has added jobs in the Commonwealth at a rate of ten percent per year (Exh. Comm-1, at 37). The energy efficiency programs in these Three-Year Plans create a solid foundation for future energy efficiency activities as the Program Administrators continue their sustained efforts to achieve all cost-effective energy efficiency.

The Department is mindful of the burdens associated with additional rates. At the December 5, 2012, public hearing, numerous consumers expressed their concern with any rate increases associated with the Three-Year Plans (Public Hearing Tr. at 23-31, 48-50, 55-63, 66-73). As we have observed, while energy efficiency programs result in increases to distribution rates, investments in energy efficiency programs also result in savings on a participant's entire bill because of the participant's reduced energy consumption. D.P.U. 08-50-A at 58. In fact, the bill impacts from these Three-Year Plans show that participants can expect to see bill decreases in the range of two percent to 28 percent (see, e.g., Exh. NG-Gas-6, at 154). As discussed in Section IV.B, above, we have directed the Program Administrators to form a working group to develop strategies to remove barriers to energy efficiency participation to ensure that all customers receive the full benefits of energy efficiency.

Based on our review, and in consideration of the significant benefits provided by energy efficiency resources and mindful of the burdens associated with increased rates, the Department

finds that the bill impacts associated with the Three-Year Plans are within the range of what we consider to be reasonable (see, e.g., Exh. NG-Gas-6).[103]

Finally, the Attorney General requests that the Department establish a pre-determined bill impact standard or otherwise impose a cap on bill impacts related to energy efficiency (Attorney General Brief at 13). The Department has been charged with considering the reasonableness of bill impacts associated with energy efficiency programs and, for the following reasons, we find that a pre-determined bill impact cap for energy efficiency spending is not appropriate. G.L. c. 25, § 19(a); see also G.L. c. 164, § 94.

As noted above, energy efficiency is very different from other distribution company spending that leads to increases in rates; energy efficiency investments provide direct customer benefits from reduced consumption and reduced costs. These benefits persist for the lives of the energy efficiency measures installed. Accordingly, our review of energy efficiency bill impacts is not a mechanical exercise but, instead, requires the Department to carefully weigh the short-term impacts on consumers as well as the long-term savings and other benefits that flow from energy efficiency program implementation. In addition, unlike the other reconciling mechanisms cited by the Attorney General (e.g., targeted infrastructure replacement factor) the Council and the Department approve energy efficiency program budgets (and the resulting bill impacts) before any spending occurs. We will use our judgment and expertise to fully consider the effect of bill impacts when approving customer funds for energy efficiency programs; a pre-determined bill impact cap is inconsistent with the fundamental requirement of the Green Communities Act to achieve all available cost-effective energy efficiency.

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103 The bill impacts we find reasonable here fully consider and incorporate the thresholds for mid-term modifications that a Program Administrator can make without review by the Council or the Department. D.P.U. 11-120-A, Phase II at 27-30; Guidelines at § 3.8.

4. Conclusion

As discussed in Sections V, above,[104] the Department has approved, subject to certain modifications, the proposed budgets included in the Three-Year Plans. After the consideration of: (1) the availability of other private or public funds; (2) whether past programs have lowered the cost of electricity to consumers; and (3) the effect of bill increases on consumers, the Department finds that each Program Administrator may recover the funds to implement the energy efficiency budgets[105] through its EESs. On or before February 21, 2013, each Program Administrator shall submit a compliance filing showing the calculation of its EES for each applicable customer class for 2013, 2014, and 2015. See D.P.U. 11-120-A, Phase II at 22. Gas Program Administrators shall submit their proposed EESs in accordance with the following schedule: 2013 EESs for effect May 1, 2013; 2014 EESs for effect November 1, 2013; and 2015 EESs for effect November 1, 2014. Consistent with the electric Program Administrators' EES tariffs, NSTAR Electric, National Grid (electric), Unitil (electric), and WMECo shall file proposed EESs that take effect for 2013, 2014, and 2015 on the date of each Program Administrators' first respective residential basic service rate change after January 1, 2013. The Compact shall file proposed EESs for effect April 1, 2013.[106]

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104 Blackstone Gas' budget is addressed in Section IX.C, below.

105 Program Administrators authorized to collect lost base revenues may collect estimated lost base revenues during the three-year term and reconcile actual lost base revenues at the end of the term in the performance report. D.P.U. 11-120-A, Phase II at 15; Guidelines § 4.1.2.

106 The Program Administrators' energy efficiency programs operate on a calendar-year basis; however, because the EES changes coincident with each Program Administrators' basic-service rate change, there is a lag between energy efficiency program spending and collection. See, e.g., NSTAR Electric Company, D.P.U. 08-117, at 51 (2009). For the Compact, its EES changes annually on July 1st; therefore, it has a six-month lag between expenditures and revenues. See NSTAR Electric Company, D.P.U. 10-06, Exh. DPU 2-1(b), Att. at 2. Unlike the other Program Administrators, as a municipal

IX. OTHER ISSUES

A. Residential Conservation Services

1. Introduction

Massachusetts established the RCS program in response to the mandates of the National Energy Conservation Policy Act of 1978 by enacting the RCS Statute. Prior to this proceeding, electric and gas Program Administrators submitted their RCS budgets for approval by the Department separately from their three-year plans. G.L. c. 164 App., §§ 2-1 through 2-10. The Energy Act of 2012 now allows Program Administrators to submit their RCS filings in the same proceeding as their three-year plans. St. 2012, c. 209, § 32(h), (i). The Department is required to review the reasonableness of the proposed RCS budgets included in each Program Administrator's three-year plan. G.L. c. 164 App., § 2-7(b); St. 2012, c. 209, § 32(i).

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aggregator pursuant to G.L. c. 164, § 134, the Compact cannot rely on working capital to make up this revenue shortfall. NSTAR Electric Company, D.P.U. 12-34, Exh. CLC-MTD at 5-6; D.P.U. 10-06/10-07/10-08/10-09 (Tr. 1, at 64-65). The Compact also has represented that it does not have the authority to issue municipal bonds to satisfy the revenue shortages associated with the Compact's provision of energy efficiency services. D.P.U. 12-34, Exh. CLC-MTD at 6; see also D.P.U. 11-120, Phase II, Comments of Cape Light Compact at 3, 5 (October 15, 2012) (requesting that the Department amend the Guidelines to allow municipal aggregators to have calendar-year EESs in order to address unique borrowing challenges).

Because of its unique circumstance, the Department directs the Compact to file, on or before February 21, 2013, a revised EES for each applicable customer class for effect on April 1, 2013, which includes the Compact's energy efficiency expenses for the 2013 program year. In addition, the Compact shall work with NSTAR Electric to file a revised EES tariff, on or before February 21, 2013, that permits NSTAR Electric, starting with plan-year 2014, to collect on behalf of the Compact energy efficiency funds generated by the Compact's EES, on a calendar-year basis (e.g., for 2014, the Compact will collect its 2014 program-year expenditures over the period January 1, 2014 through December 31, 2014). All other components of the EES tariff shall remain the same. The Department notes that Unitil (electric) and Unitil (gas) also proposed to recover energy efficiency expenditures from customers over the same time period in which they are incurred in Fitchburg Gas and Electric Light Company, d/b/a Unitil, D.P.U. 10-08. D.P.U. 10-08, Exh. FGE-KMA-1, at 8. This request is currently under advisement and will be considered in D.P.U. 10-08.

2. Program Administrators' Proposal

Each Program Administrator proposes to include its RCS budget as part of the Home Energy Services core initiative in the Whole House program for each year of the proposed Three-Year Plan (Exhs. Comm-1, at 26; DPU-Comm 1-11(b)). The gas Program Administrators propose to recover RCS costs through the EES, included in the LDAC, rather than the current practice of using a per bill RCS surcharge (Exhs. Comm-1, at 26; DPU-Comm 1-11(c)). Following the incorporation of RCS funding into the EES, gas Program Administrators would amend all necessary tariffs to cancel their separate RCS surcharges (Exhs. Comm-1, at 26; DPU-Comm 1-11(c)). The electric Program Administrators propose to continue to recover RCS costs through their EESs (Exh. Comm-1, at 26).

3. Analysis and Findings

In the 2010-2012 three-year plans, the Program Administrators included the RCS program as part of their plans for illustrative purposes only; however, due to conflicting statutory and regulatory requirements, the Program Administrators submitted their RCS filings to the Department separately from their three-year plans, for review and approval on an annual basis. Gas Three-Year Plans Order at 42-43, 59-60; Electric Three-Year Plans Order at 73-74. The Energy Act of 2012 now allows a Program Administrator to satisfy the filing requirements of the RCS Statute by including its RCS filing in its three-year plan filing. St. 2012, c. 209, § 32(i).

The Program Administrators have proposed to include the RCS program in the Home Energy Services core initiative for program years 2013-2015. In addition, the Program Administrators provided the additional information required by the RCS Statute; including actual RCS program expenses for 2011 and 2012 (Exhs. DPU-Comm 1-11; DPU-Comm 7-1).[107] The

[107] The RCS Statute requires the Department to review the actual income and expenses incurred by an electric and gas Program Administrator in carrying out the RCS program

Department finds that the Program Administrators' proposal to include the RCS program budget in the Home Energy Services core initiative satisfies the requirements of the Energy Act of 2012 and the RCS Statute.[108]

The gas Program Administrators propose to incorporate RCS funding in the EES and amend their tariffs to cancel the separate gas RCS surcharges. This proposal is consistent with how electric Program Administrators currently collect RCS funds. See, e.g., Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, D.P.U. 12-20 (2012). Accordingly, the Department approves the gas Program Administrators proposal to recover RCS costs through their respective EESs. As part of their 2013 off-peak LDAC filing, all gas Program Administrators shall submit new tariffs designed to remove the separate RCS surcharge.

After review of the proposed RCS budgets as compared to prior years' budgets the Department finds that the Program Administrators' proposed RCS budgets are reasonable (Exh. DPU-Comm 7-1). Accordingly, we approve the RCS program budgets for all Program Administrators for program years 2013 through 2015.

In addition, the Department has reviewed the actual income and expenses incurred by electric and gas Program Administrator in carrying out the RCS program during 2012 and finds that they are reasonable (Exh. DPU-Comm 7-1). The Department will review the proposed

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during the preceding year and approve the collection of any over- or under-recoveries. G.L. c. 164 App., § 2-7.

108 If a Program Administrator intends to include its RCS filing in future three-year plan filings, it must provide the following information: (1) the RCS budget as a separate line item in the D.P.U. 08-50 Tables; and (2) a comparison of actual RCS spending in the previous term as compared to the proposed RCS budget (see Exh. DPU-Comm 1-11; see also Exh. DPU-Comm 7-1).

collection of any RCS over- or under-recoveries in the LDAC filings for the gas Program Administrators and in the EES filings for the electric Program Administrators.

B. NSTAR Electric and WMECo Request for Approval of an Integrated Energy Efficiency Plan

1. Introduction

On April 4, 2012, the Department approved a merger between Northeast Utilities, the parent company of WMECo, and NSTAR, the parent company of NSTAR Electric and NSTAR Gas.[109] Joint Petition for Approval of Merger Between NSTAR and Northeast Utilities, pursuant to G.L. c. 164, § 96, D.P.U. 10-170-B (2012). The Northeast Utilities' electric Program Administrators, NSTAR Electric and WMECo, seek approval of a single integrated Three-Year Plan.[110] D.P.U. 12-110/12-111 Petition for Approval of its Energy Efficiency Investment Plan at 2.

Specifically, NSTAR Electric and WMECo request approval of: (1) common program design and implementation activities; (2) separate EESs; (3) an aggregate program budget; (4) review of program cost-effectiveness on a combined basis; (5) a common performance incentive mechanism; and (6) aggregate common savings goals (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58). Each proposal is discussed in greater detail below.

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109 This merged parent company retained the name Northeast Utilities (D.P.U. 10-170-B at 1).

110 NSTAR Electric and WMECo filed their D.P.U. 08-50 Tables and all other documents relating to the Department's review of the Three-Year Plans both jointly and separately (Exhs. NSTAR-Electric-4; WMECo-4; NSTAR Electric/WMECo-4).

2. Description of Proposal

a. Common Program Design and Implementation

NSTAR Electric and WMECo propose a common program design for and joint implementation of their energy efficiency programs (Exhs. NSTAR Electric/WMECo-2, at 36; DPU-WMECo 2-39; DPU-NSTAR 2-58). NSTAR Electric and WMECo will have a single energy efficiency department, with one director to manage all energy efficiency programs (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58).

b. Energy Efficiency Cost Recovery

NSTAR Electric and WMECo do not propose to consolidate the companies' respective energy efficiency cost recovery tariffs and, therefore, will maintain separate EESs for each company (Exhs. NSTAR Electric/WMECo-2 at 38; DPU-WMECo 2-39; DPU-NSTAR 2-58). The companies state that NSTAR Electric's recovery of lost base revenues is governed by the terms of the Settlement Agreements among NSTAR Electric, NSTAR Gas, NSTAR, WMECo, Northeast Utilities, DOER, and the Attorney General, dated February 15, 2012 and approved by the Department in D.P.U. 10-170-B (Exh. NSTAR Electric/WMECo-2, at 38).[111]

c. Aggregated Program Budgets

NSTAR Electric and WMECo request approval of an aggregated energy efficiency program budget (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58). The companies state that NSTAR Electric's and WMECo's individual energy efficiency budgets are structurally identical and that both companies allocate costs in a consistent manner (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1682). NSTAR Electric and WMECo propose to track energy

[111] There were two settlements among the parties in D.P.U. 10-170-B: (1) between NSTAR, Northeast Utilities, and DOER ("DOER Merger Settlement"); and (2) between NSTAR, Northeast Utilities, DOER, and the Attorney General ("Attorney General Merger Settlement").

efficiency costs separately (Exh. NSTAR Electric/WMECo-2, at 37; Tr. 9, at 1683). Under the companies' proposal, costs that are incurred in an individual company's service territory will be charged directly to that company (Tr. 9, at 1683). Statewide costs will be allocated to both companies (Tr. 9, at 1695-1696).

According to the companies, joint costs, which consist primarily of salaries for employees who work on energy efficiency programs in both NSTAR Electric's and WMECo's service territories, will be budgeted to a specific company based on an estimate of the resources needed to deliver the savings (Tr. 9, at 1683, 1690-1694). The proposed aggregated budget also includes the incremental cost of combining NSTAR Electric's and WMECo's data tracking systems (Tr. 9, at 1714-1716).

With respect to low-income energy efficiency program budgets, NSTAR Electric and WMECo propose to maintain their combined spending on such programs at a minimum of ten percent of the combined total budget (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1699). NSTAR Electric and WMECo state, however, that they will not necessarily spend ten percent of each individual company's budget on low-income programs (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1699).

d. Cost-Effectiveness Review

NSTAR Electric and WMECo request that the Department review program cost-effectiveness on an aggregated basis, in both this investigation and in the Department's subsequent review of the Program Administrators' performance at the end of the three-year term (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1729-1730).

e. Performance Incentive Mechanism

NSTAR Electric and WMECo seek approval of a common performance incentive mechanism (Exhs. NSTAR Electric/WMECo-2, at 39; DPU-WMECo 2-39; DPU-NSTAR 2-58).

NSTAR Electric and WMECo propose to calculate the savings and value components of the mechanism based on both companies' combined performance under the plan. The companies propose to allocate performance incentive payments from the savings and value components between the two companies based on the service territory where the savings or benefits occurred (Exhs. NSTAR Electric/WMECo-2, at 39; DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1722-1728). NSTAR Electric and WMECo propose to allocate any performance incentive payments for the performance metrics component to the individual operating companies based on planned net benefits (Tr. 9, at 1690-1691).

f. Aggregate Common Program Savings Goals

NSTAR Electric and WMECo propose to adopt aggregate common program savings goals of 2.52 percent, 2.59 percent, and 2.64 percent of total annual energy savings as a percentage of combined energy sales for the years 2013, 2014, and 2015, respectively (Exh. Comm-1, App. R, Att. A of Electric Term Sheets). If the savings goals were not aggregated, NSTAR Electric's proposed savings goals would be 2.51 percent, 2.57 percent, and 2.61 percent as a percent of NSTAR electric's energy sales for the years 2013, 2014, and 2015, respectively, while WMECo's proposed savings goals would be 2.58 percent, 2.70 percent, and 2.82 percent of WMECo's sales (RR-DPU-14).

3. Positions of the Parties

a. NSTAR Electric and WMECo

NSTAR Electric and WMECo argue an integrated plan will fulfill the companies' energy efficiency obligations and provide administrative and regulatory efficiencies, with no adverse effects on customers (Program Administrator Brief at 94, citing Exh. NSTAR Electric/WMECo-2, at 35). NSTAR Electric and WMECo contend that a requirement to maintain separate energy efficiency plans would, by contrast, impose unnecessary administrative

and regulatory burdens on the companies (Program Administrator Brief at 97, citing Exh. NSTAR Electric/WMECo-2, at 36). The companies assert that an integrated plan is consistent with the requirement of the Green Communities Act to minimize costs, where possible (Program Administrator Reply Brief at 24). Finally, NSTAR Electric and WMECo argue that their proposed aggregated plan would be substantially similar to their individual plans because all plans must be consistent with the Statewide Plan (Program Administrator Brief at 94).

NSTAR Electric and WMECo maintain that an integrated plan will create numerous opportunities for savings (Program Administrator Brief at 97-98). Further, NSTAR Electric and WMECo argue that there will not be any adverse bill impacts as a result of an integrated plan because the companies will maintain individual EESs (Program Administrator Brief at 101). The companies argue that any cost savings from integration could, in fact, decrease bill impacts for both companies over time (Program Administrator Brief at 102, citing Exh. NSTAR Electric/WMECo-2, at 38-39).

NSTAR Electric and WMECo argue that the Department should approve their proposal to combine the companies' energy efficiency budgets because the companies' individual budgets are structurally similar (Program Administrator Brief at 98-100). They argue that maintaining separate budgets creates unnecessary administrative and regulatory burdens and that implementing common programs with a combined budget, integrated marketing, and joint evaluation efforts may create opportunities for cost savings (Program Administrator Brief at 98-100, citing Exhs. NSTAR Electric/WMECo-2, at 36-37; DPU-NSTAR 2-58).

Regarding the proposal to review cost-effectiveness on an integrated basis, NSTAR Electric and WMECo claim that nothing in the merger proceeding prohibits such treatment

(Program Administrator Brief at 100, citing Exh. DPU-NSTAR 2-58).[112] NSTAR Electric and WMECo argue that all programs will be cost-effective whether pursued through two single plans or one joint Three-Year Plan (Program Administrator Brief at 100, citing Exhs. NSTAR Electric/WMECo-4, NSTAR-Electric-4; WMECo-4).

NSTAR Electric and WMECo argue that the Department should approve their request to collect performance incentives based on an integrated plan because the total dollars available in the statewide incentive pool, the percentage of the statewide incentive pool allocated to the savings, value, and metrics components, and the statewide payout rates will not change, as each of these items is set on statewide basis (Program Administrator Brief at 102-103). Further, NSTAR Electric and WMECo argue that approval of a common performance incentive mechanism is consistent with the merger settlement agreement with DOER (Program Administrator Brief at 103, citing Exh. DPU-NSTAR 2-58). Finally, NSTAR Electric and WMECo argue that a single performance incentive mechanism will not adversely affect ratepayers because the Performance Incentive Mechanism is common among all Program Administrators (Program Administrator Brief at 103-104, citing Exh. DPU-NSTAR 2-58). NSTAR Electric and WMECo argue that, given that they are seeking to implement common energy efficiency programs pursuant to a single plan with a common, aggregate budget, the calculation of performance incentives based on the success of the integrated plan is logical (Program Administrator Brief at 104, citing Exh. DPU-NSTAR 2-58).

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[112] NSTAR Electric and WMECo contend that the only place the cost-effectiveness of their energy efficiency programs is addressed in the merger is in the DOER Merger Settlement, which they state commits the companies to increase their aggregate annual energy efficiency savings target to at least 2.5 percent of their combined retail sales, so long as there is no material change in the framework for assessing the success of the programs and associated incentives (Program Administrator Brief at 103, citing DPU-NSTAR 2-58).

NSTAR Electric and WMECo argue that the Department should approve their request to aggregate savings goals because their aggregated goal exceeds the annual aggregate energy efficiency savings target of 2.5 percent in the DOER merger settlement (Program Administrator Brief at 96). Further, the companies argue that the joint implementation of aggregate common savings goals will benefit NSTAR Electric's and WMECo's customers by allowing the companies to implement common energy efficiency programs consistently in both service areas (Program Administrator Brief at 96-97).

NSTAR Electric and WMECo assert that the Attorney General's arguments regarding the treatment of low-income budgets and performance incentives under an integrated plan are unsupported (Program Administrator Reply Brief at 23). In particular, NSTAR Electric and WMECo emphasize that that the integration proposal is expressly referenced in the Statewide Plan and supported by the Council, of which the Attorney General is a voting member (Program Administrator Reply at 22, citing Exh. Comm-1, at 271-274; NSTAR Electric/WMECo-8-A, NSTAR Electric/WMECo-8-B). NSTAR Electric and WMECo further argue that the Department has approved integrated energy efficiency plans for other Program Administrators (e.g., National Grid (gas) and National Grid (electric)) (Program Administrator Reply Brief at 22-23). Further, the companies argue the Department has approved a similar integrated energy efficiency plan for Boston Gas Company and Colonial Gas Company, which was funded by separate EESs, collected through separate LDAFs (Program Administrator Reply Brief at 23, citing KeySpan Energy Delivery, D.T.E. 02-31 (2002)).

b. Attorney General

The Attorney General urges the Department to further investigate the implications of an integrated NSTAR Electric/WMECo budget, arguing that it is conceivable that, if allowed, the ratepayers of one Program Administrator could subsidize the ratepayers of the other Program

Administrator (Attorney General Brief at 20). In the interim, to protect against possible cross-subsidization, the Attorney General requests that the Department prohibit the companies from reporting and applying energy efficiency program savings, costs, and performance incentives on a consolidated basis (Attorney General Brief at 22).

c. Department of Energy Resources

DOER recommends that the Department consider whether approving a common performance incentive might unintentionally undermine ratepayers' confidence by suggesting that any benefits generated from efforts originating in one company's service territory could be inappropriately exported to another service territory as a result of the merger (DOER Reply Brief at 7-8).

4. Analysis and Findings

a. Program Design and Implementation

NSTAR Electric and WMECo propose to adopt a common energy efficiency program design and to jointly implement their programs, asserting that such treatment has the potential to reduce implementation costs (Exhs. NSTAR Electric/WMECo-2, at 36; DPU-WMECo 2-39; DPU-NSTAR 2-58; DPU-WMECo 2-43; DPU-NSTAR 2-62). In addition, NSTAR Electric and WMECo maintain that implementing common programs through an integrated plan could create opportunities for additional energy savings through a more unified and consistent approach to customer engagement (Program Administrator Initial Brief at 97-98). No party argues that NSTAR Electric and WMECo should design or implement their energy efficiency programs separately.

Consistent with the requirements of the Green Communities Act, the Department fully supports and encourages all efforts that maximize the acquisition of all available cost-effective energy efficiency resources while minimizing implementation costs. G.L. c. 25, § 19. We are

persuaded that the joint implementation of common programs may create opportunities for additional savings (Exhs. DPU-WMECo 2-43; DPU-NSTAR 2-62; DPU-WMECo 2-44; DPU-NSTAR 2-63). For these reasons, we approve the request of NSTAR Electric and WMECo to adopt a common energy efficiency program design and to jointly implement their programs. Issues related to cost-tracking, performance reporting and review, and performance incentives are addressed below.

b. Aggregated Program Budget

In principle, the Department supports NSTAR Electric's and WMECo's proposal to create a joint system for energy efficiency budgeting, as it has the potential to achieve efficiencies. The companies' proposed method for tracking and allocating costs, particularly joint costs, however, is not well defined (Exh. NSTAR Electric/WMECo-2, at 39; Tr. 9, at 1690-1694, 1697-1699). For example, NSTAR Electric and WMECo originally proposed to allocate joint costs according to planned net benefits (Exh. NSTAR Electric/WMECo-2, at 39). The companies later testified that joint costs, particularly labor costs, would be budgeted to a specific company based on an assessment of the resources needed to deliver the savings, but that they would "reconsider" their budgeted allocation of shared labor costs if their estimates proved to be "out of whack" (Tr. 9, at 1690-1694, 1697-1699).

The Department finds that NSTAR Electric's and WMECo's proposed method for allocating shared energy efficiency costs will not provide the Department with sufficient transparency to properly review such costs. Accordingly, in order to ensure a consistent and appropriate allocation of joint costs and a transparent review of the companies' budgets, the

Department directs NSTAR Electric and WMECo to submit all energy efficiency filings related to this Three-Year Plan, including all tables, on both a combined and separate basis.[113]

NSTAR Electric and WMECo state that they will budget at least ten percent of their aggregate energy efficiency budget to the low-income sector, in accordance with section 19(c) of the Green Communities Act (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1699). As the Attorney General notes, however, there is a risk of cross-subsidization with an aggregated low-income budget (Tr. 9, at 1699-1704). Despite a stated commitment to the contrary, NSTAR Electric and WMECo may not necessarily spend ten percent of each individual company's energy efficiency budget on low-income programs (Exhs. NSTAR-4; WMECo-4; DPU-WMECo 2-39; DPU-NSTAR 2-58; Tr. 9, at 1699, 1701-1703). To ensure that the low-income customers in both companies' service territories are not underserved, the Department directs NSTAR Electric and WMECo to meet their ten percent low-income spending obligation on an individual, company-specific basis. G.L. c. 25, § 19(c).

Finally, NSTAR Electric and WMECo propose to include as an administrative cost in this proceeding (and collect from ratepayers through their EESs) approximately $200,000 to $300,000 in costs related to the integration of NSTAR Electric's and WMECo's energy efficiency cost tracking systems (Exh. AG-Comm 1-1; Tr. 9, at 1716). NSTAR Electric and WMECo state that they expect the integration of their two systems to result in cost savings in the long term (Exh. DPU-NSTAR 2-63;DPU-WMECo 2-44; Tr. 9, at 1714).

During the merger proceedings, NSTAR and Northeast Utilities estimated that there would be approximately $164 million in merger-related costs, including system integration costs,

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[113] Over the three-year term, NSTAR Electric and WMECo will track savings and costs separately for the purposes of filing separate EESs (Tr. 9, at 1682; Exh. DPU-NSTAR 2-58). As a result, NSTAR Electric and WMECo will be able to generate separate budget reports.

and projected $302 million in net savings for Massachusetts customers. See D.P.U. 10-170-B at 56-58. Northeast Utilities and its Massachusetts operating companies may not, however, recover any merger-related costs until merger savings have been verified. D.P.U. 10-170-B at 60. We find that the $200,000 to $300,000 in proposed costs related to the integration of NSTAR Electric's and WMECo's energy efficiency tracking systems are merger-related costs (Exh. AG-Comm 1-1). Accordingly, NSTAR Electric and WMECo may not include the costs of integrating the companies' energy efficiency tracking systems in their proposed EESs for 2013 to 2015. The recovery of such costs will be addressed after merger savings are verified.

c. Cost-Effectiveness Review

As discussed in Section VII, above, all of NSTAR Electric's and WMECo's individual energy efficiency programs are cost-effective, as planned (Exhs. NSTAR/WMECo-2, at 37; DPU-WMECo 2-39; DPU-NSTAR 2-58). In addition, NSTAR Electric and WMECo have demonstrated that the programs also will be cost-effective if pursued through an integrated Three-Year Plan (Exhs. NSTAR Electric/WMECo-4; NSTAR-Electric-4; WMECo-4; DPU-WMECo 2-39; DPU-NSTAR 2-58).

A fundamental component of the TRC test is program costs, to which program budgets are integrally linked. As discussed above, in order to facilitate the Department's review of plan performance, the Department will require NSTAR Electric and WMECo to file individual and combined energy efficiency reports for this Three-Year Plan term. Likewise, for this Three-Year Plan term, the Department will review NSTAR Electric's and WMECo's performance to assess whether their energy efficiency programs, as implemented, are cost-effective both on an individual and a combined basis.

d. Performance Incentive Mechanism

NSTAR Electric and WMECo propose to implement a joint performance incentive mechanism and collect performance incentives based on the combined performance of the two companies (Exhs. Comm-1, at 273; DPU-NSTAR 2-58; DPU-WMECo 2-39). NSTAR Electric and WMECo argue that a combined performance incentive mechanism will not adversely affect their customers and is consistent with the DOER Merger Settlement (Program Administrator Brief at 104).[114] In particular, NSTAR Electric and WMECo assert that in order to meet the agreed upon savings targets contained in the Statewide Plan and the merger settlement, the companies will need to leverage NSTAR Electric's expertise and resources in WMECo's service territory (Tr. 9, at 1665-1674; see also D.P.U. 10-170, Exh. JP-1 (Supp.) at 31).

The Attorney General and DOER correctly raise concerns about the potential for cross-subsidization with a joint performance incentive mechanism (Attorney General Brief at 20-22; DOER Reply Brief at 7-8). That is, an aggregate performance incentive mechanism may result in one company's customers paying for the benefits earned in the other company's service territory. Similarly, a joint performance incentive mechanism could serve to mask one company's less than stellar performance with the other company's superior performance.

The Department seeks to ensure that both NSTAR Electric and WMECo meet their performance commitments on an individual, company specific basis for this Three-Year Plan

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[114] As acknowledged by NSTAR Electric and WMECo, neither the Attorney General Settlement Agreement nor the DOER Settlement Agreement, specifically address how performance incentives will be calculated for the merged companies. Section 2.3 of the DOER Merger Settlement commits the companies to increase their aggregate energy efficiency savings target to at least 2.5% of retail sales annually through energy efficiency, "so long as there is no material change in the framework for assessing the success of the program and associated incentives." Our directive here does not change the framework of the performance incentive mechanism.

term. Accordingly, the Department directs NSTAR Electric and WMECo to calculate and report performance incentives on an individual Program Administrator basis.

e. Aggregate Program Savings Goals

Pursuant to the DOER Merger Settlement in D.P.U. 10-170, NSTAR Electric and WMECo are required to increase their aggregate energy efficiency savings target as of January 1, 2013 to at least 2.5 percent of retail sales annually through energy efficiency (Exh. NSTAR Electric/WMECo-2, at 35-36, citing D.P.U. 10-170, DOER Merger Settlement at Art. 2.3; Attorney General Merger Settlement at Arts. 2(3), 2.7). NSTAR Electric and WMECo have committed to joint savings targets consistent with the DOER Merger Settlement and the Attorney General Merger Settlement, and each company has agreed to individual savings goals in excess of the Statewide Plan targets (Exh. Comm-1, App. R, Att. A; RR-DPU-14).[115]

Consistent with our directives above regarding individual reporting of budgets, review of cost-effectiveness, and calculation of performance incentives for this Three-Year Plan term, the Department will review NSTAR Electric's and WMECo's performance with respect to program savings goals on an individual Program Administrator basis.

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[115] In D.P.U. 10-170, NSTAR and Northeast Utilities stated that the ability to leverage their expertise, resources, and capabilities post merger would result in WMECo's energy efficiency savings targets being raised to NSTAR Electric's levels. D.P.U. 10-170, Exh. JP-1 (Supp.) at 31. In D.P.U. 10-170-B, at 80, the Department found that the energy efficiency provisions of the DOER Settlement would provide material benefits for the ratepayers of NSTAR Electric and WMECo. In the current proceeding, NSTAR Electric and WMECo reiterated that WMECo's individual savings goals and the companies' aggregate savings goals would continue to rise as a result of the merger (Tr. 9, at 1665-1674). Compared to the last Three Year Plan, WMECo's savings goals for 2013-2015 are 54 percent higher over the three-year term, while NSTAR Electric's three year savings goals are 38 percent higher (Exhs. WMECo-4 (December 21, 2012); NSTAR-4 (December 21, 2012); Electric Three-Year Plans Order App. B Table 2).

5. Conclusion

NSTAR Electric and WMECo should continue to perform their internal planning, budgeting, and implementation activities in a way that maximizes the acquisition of all available cost-effective energy efficiency and minimizes costs pursuant to the Green Communities Act. G.L. c. 25, § 19. As discussed above, however, the companies' proposal to fully aggregate all plan reporting and review raises concerns about the potential for cross-subsidization and lack of transparency. In order to address these concerns, NSTAR Electric and WMECo must file all energy efficiency reports (and related documents) for this Three-Year Plan term, both on an individual and an aggregate basis.[116] For this Three-Year Plan term, the Department will review NSTAR Electric's and WMECo's performance to assess whether their energy efficiency programs, as implemented, are cost-effective both on an individual and a combined basis. The Department will review NSTAR Electric's and WMECo's performance with respect to savings goals on an individual basis and the companies shall calculate and report performance incentives on an individual Program Administrator basis. NSTAR Electric and WMECo shall, no later than February 21, 2013, submit final revised D.P.U. 08-50 Tables and performance incentive tables for each company, consistent with all directives contained herein.

C. Blackstone Gas Company

1. Introduction

Blackstone Gas serves approximately 1,415 residential and 157 C&I customers in the town of Blackstone and portions of the towns of Bellingham and Wrentham, Massachusetts (Exh. Comm-1, at 274). As such, Blackstone Gas is the smallest gas distribution company to be

[116] To the extent that NSTAR Electric and WMECo can demonstrate that they have adequately addressed all concerns described above, the Department may reconsider, in a future three-year proceeding, whether it is appropriate for NSTAR Electric and WMECo to adopt a fully aggregated energy efficiency plan (including savings goals and performance incentives).

included in the Statewide Plan (Exh. Comm-1, at 274). Due to the small size of its customer base Blackstone Gas will participate in only a subset of the programs discussed in the Statewide Plan (Exh. Comm-1, at 274). Blackstone Gas' budgets, savings, benefits, and other data have not been included in the statewide D.P.U. 08-50 Tables or anywhere else in the Statewide Plan submitted by the Program Administrators (Exh. Comm-1, at 274).

2. Three-Year Plan Proposal

a. Programs and Savings Goals

Blackstone Gas proposes to offer GasNetworks[117] measures through two residential programs, one low-income program, and one C&I program (Exhs. BGC-4; BGC-5). Blackstone Gas projects 159 participants for the residential programs, 15 participants for the low-income program, and 21 participants for the C&I program (Exh. BGC-4). Blackstone Gas plans to save 17,429 therms over the term of its Three-Year Plan (Exh. BGC-4).

As noted above, the term sheets submitted by the Program Administrators to support the savings goals underlying their pursuit of all cost-effective energy efficiency do not include Blackstone Gas' proposed savings goals (Exhs. Comm-1, at 274, App. R). In addition, Blackstone Gas did not work with the Council to establish savings goals as a percentage of the Blackstone Gas' retail sales (Tr. 8-A at 38-40).

b. Proposed Program Implementation Costs

Blackstone Gas originally proposed a total program implementation costs budget of $280,699 for the Three-Year Plan: $93,566 in 2013, $93,566 in 2014, and $93,566 in 2015 (Exh. BGC-4). On December 5, 2012, Blackstone Gas submitted a revised estimate of total three-year program implementation costs of $339,091, increasing the expenditures for the PP&A

[117] GasNetworks is a collaborative of the gas Program Administrators that operates the Residential Heating and Water Heating core initiative (Exh. Comm-1, at 162-167).

cost category by $91,132 (Exh. BGC-4 (rev.)). Blackstone Gas states that the revised implementation costs reflect the estimated increase in regulatory expenses related to the Three-Year Plan proceedings. D.P.U. 12-102, Cover Letter from Blackstone Gas to Department, at 1 (December 5, 2012). Blackstone Gas provided invoices to support its revised estimate of program implementation costs (Exh. DPU-BGC 2-1; RR-DPU-BGC-2 (Confidential)). On December 27, 2012, Blackstone Gas submitted a second revised estimate of total three-year program implementation costs of $345,579 to reflect corrections to program cost allocation (Exh. BGC-4 (second rev.).

Blackstone Gas originally planned to spend $58,032 on PP&A, approximately 20.7 percent of the total three-year energy efficiency expenditures (Exh. BGC-4). In the first revised three-year expenditure proposal, the PP&A costs estimate increased to $149,164, or approximately 44 percent of the total three-year program implementation costs (BGC-4 (rev.)). In the second revised three-year expenditure proposal, the PP&A costs estimate decreased to $146,432, or 42 percent of the total three-year program implementation costs (Exh. BGC-4 (second rev.)). Blackstone Gas states that it unsuccessfully attempted to contract with National Grid (gas) to administer its energy efficiency programs in order to reduce or eliminate the additional regulatory expenses (Exh. DPU-BGC 1-1). National Grid (gas) stated that it was not prepared to do so, given the late timing of the request (Tr. 8-A at 8-9; RR-AG-BGC-1, Att.).

In each of its expenditure proposals, Blackstone Gas plans allocate at least 20 percent of its energy efficiency expenditures to the low-income sector (Exhs. BGC-4; BGC-4 (rev.); BGC-4 (second rev.)). Blackstone Gas does not propose to collect any performance incentives or lost base revenues related to its Three-Year Plan (Exhs. Comm-1, at 269; BGC-4).

c. Program Cost-Effectiveness

Blackstone Gas conducted a benefit-cost analysis of its programs under all three expenditure proposals for each year of its Three-Year Plan (Exhs. BGC-4; DPU-BGC 2-6; BGC-4 (second rev.)). All of Blackstone Gas' programs are cost-effective under the original expenditure proposal and the second revised expenditure proposal (Exhs. BGC-4; BGC-4 (second rev.)).[118]

d. Funding and Bill Impacts

As with the other gas Program Administrators, as discussed in Section VIII, above, Blackstone Gas proposes to recover all program costs through its EES (Exhs. BGC-6; BGC-6 (rev.); BGC-6 (second rev.)). Blackstone Gas submitted bill impacts showing the effect of its Three-Year Plan on customers in all rate classes (Exhs. BGC-6; BGC-6 (rev.)). Blackstone Gas submitted updated bill impacts on December 27, 2012, which reflect the second revised program implementation costs proposal[119] (Exh. BGC-6 (second rev.)).

e. Service Agreement with National Grid

In its prior three-year plan, Blackstone Gas began negotiations for National Grid (gas) to provide certain energy efficiency services in order to minimize costs. Gas Three-Year Plans Order at 137-138. Blackstone Gas provided a copy of a draft service agreement with National Grid (gas) regarding Blackstone Gas' energy efficiency programs ("Agreement") (Exh. DPU-BGC 2-7, Att.). The Agreement addresses the services that National Grid (gas) would provide for Blackstone Gas, including representing Blackstone Gas at monthly GasNetworks

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118 Given the expenditure levels in the first revised expenditure proposal, the Residential Products program would not be cost-effective (see Exh. DPU-BGC 2-6).

119 Blackstone Gas' proposed EES for 2013 includes the reconciliation of a large under-recovery from its EES for the 2012 plan year (Exhs. BGC-6; BGC-6 (rev.); BGC-6 (second rev.)).

meetings, and producing monthly program participation and spending reports (Exh. DPU-BGC 2-7, Att.). Although the Agreement has not been executed, Blackstone Gas testified that it and National Grid (gas) had a verbal understanding whereby National Grid (gas) represented Blackstone Gas at the monthly meetings of GasNetworks and provided feedback on the program issues that arose (Tr. 8-A at 31; RR-DPU-BGC-8). In addition, National Grid (gas) took the lead in developing the request for proposals ("RFP") for the vendor for the GasNetworks program on behalf of Blackstone Gas (RR-DPU-BGC-8). Blackstone Gas states that it has not been billed for any services under the Agreement or verbal understanding, and that the cost for any services actually provided to Blackstone Gas by National Grid (gas) have not been included in Blackstone Gas' proposed original or revised estimates of total three-year program implementation costs (Exh. DPU-BGC 2-7).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that, due to the size and limited resources of Blackstone Gas, its customers may not have the opportunity to participate in statewide gas programs because of the economic burden that program delivery, administration and regulatory requirements will place on Blackstone Gas and its customers (Attorney General Brief at 21). The Attorney General recommends, therefore, that the Department require National Grid (gas) or another gas Program Administrator to provide energy efficiency programs to Blackstone Gas' customers (Attorney General Brief at 21). The Attorney General recommends that discussions between Blackstone Gas and another gas Program Administrator begin immediately and that the involved parties be required to file interim reports addressing how they plan to implement the directive (Attorney General Brief at 21).

b. Blackstone Gas

Blackstone Gas acknowledges the Attorney General's concerns about the economic burden of providing energy efficiency programs to its customers but argues that reducing bill impacts to its customers would mean reducing its program offerings, which will lead to lower benefits and non-cost-effective programs (Program Administrator Reply Brief at 24-25). In response to the Attorney General's recommendation that another gas Program Administrator be required to administer its programs, Blackstone Gas states that it will explore whether another Program Administrator could offer all of the available energy efficiency activities presented in the Statewide Plan to its customers (Program Administrator Reply Brief at 25). Blackstone Gas argues, however, that the Department cannot mandate that another Program Administrator contract with Blackstone Gas to provide energy efficiency services in its service territory (Program Administrator Reply Brief at 25). According to Blackstone Gas, the Attorney General's request is beyond the Department's authority and could result in the subsidization of ratepayers of one company by another, which is inconsistent with the Department's ratemaking principles (Program Administrator Reply Brief at 25, citing G.L. c. 164, §§ 76, 94; Boston Edison Company, Cambridge Electric Light Company, Commonwealth Electric Company, D.T.E. 03-121, at 47 (2004)).

3. Analysis and Findings

a. Program Savings Goals

As discussed in Section IV, above, the Green Communities Act requires that the Department ensure that each Program Administrator's Three-Year Plan provides for the acquisition of all available 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). Pursuant to the Green Communities Act, Program Administrators must work with the Council to prepare a Statewide Plan that is designed to achieve the Green Communities Act's goal of acquiring all available cost-effective energy efficiency and demand resources. G.L. c. 25, § 21(b)(1).

Blackstone Gas states that it limits its involvement in the Council process in order to minimize costs (Tr. 8-A at 37). As a result, Blackstone Gas did not receive Council input on the development of its Three-Year Plan (Tr. 8-A at 38). Further, Blackstone Gas' program implementation costs, savings, benefits and other data have not been included in the statewide D.P.U. 08-50 Tables, the gas term sheet or anywhere else in the Statewide Plan (Exh. Comm-1, at 274; App. R).

The Department recognizes Blackstone Gas' concerns that its size and budget constraints may prevent it from participating in the full Council process; however, participation in the Council process is both required by statute for all Program Administrators and is essential to the development of a Statewide Plan that will achieve all available cost-effective energy efficiency. G.L. c. 25, § 21(c). Accordingly, Blackstone Gas shall develop all future three-year plans in conjunction with the Council and submit them as part of the statewide plans, as required by G.L. c. 25, § 21(b)(1), (c).

No party took issue with the savings goals Blackstone Gas presented in its Three-Year Plan. After review, Department finds that Blackstone Gas' savings goals are reasonable and will capture all available cost-effective energy efficiency opportunities (Exh. BGC-4 (second rev.)).

b. Program Administrator Implementation Costs

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 § 3.3.1. In authorizing program

implementation costs, the Department is charged with ensuring that: (1) sufficient funding is allocated to low-income programs; (2) Program Administrators have minimized administrative costs to the fullest extent practicable; and (3) competitive procurement processes are used to the fullest extent practicable. G.L. c. 25, § 19(b)–(c).

As discussed above, late in the proceeding, Blackstone Gas filed two revised energy efficiency implementation costs proposals, increasing its projected PP&A costs account for an updated estimate of regulatory expenses related to the Three-Year Plan proceedings, and for subsequent annual filings and mid-term modifications (Exh. DPU-BGC 2-3). In seeking approval of program implementation costs that are to be recovered from ratepayers, Blackstone Gas must demonstrate that its proposal is reasonable. G.L. c. § 19(b).

The Department has identified several issues with respect to Blackstone Gas' most recent revised estimate of program implementation costs. First, Blackstone Gas included an estimate of costs related to potential mid-term modification filings in its proposed PP&A costs (Exh. DPU-BGC 2-3). The Department does not require annual mid-term modification filings and Program Administrators submit such filings only for specific reasons related to changes in planned three-year budgets, savings, or performance incentives. See Guidelines §§ 3.8, 3.8.2, 3.8.4. Further, as a result of the revisions to the Guidelines issued today in D.P.U. 11-120-A, Phase II at 27-30, the Department fully anticipates that much fewer mid-term modification filings will be made each year. Therefore, there is no reasonable basis for Program Administrators to include estimated costs associated with mid-term modifications in their proposed PP&A costs. Blackstone Gas did not, however, provide a breakdown of its proposed PP&A costs by function (i.e., annual report filings, mid-term modifications, etc.) as requested by

the Department[120] and, therefore, we cannot identify the portion of Blackstone Gas' increased program implementation costs proposal that is related to mid-term modifications (RR-DPU-BGC-4).

Second, the invoices submitted in support of Blackstone Gas' revised program implementation costs include legal invoices describing multiple legal services and a total amount of hours worked (RR-DPU-BGC-2). The legal invoices, however, do not break down the amount of time spent on each service provided (see RR-DPU-BGC-2). The legal invoices also include costs related to Blackstone Gas' 2010-2012 three-year plan and previous annual report filings, which should not have been included in the company's proposed program implementation costs for this Three-Year Plan (RR-DPU-BGC-2).

Given the lack of detail and clarity in its legal invoices, the inclusion of costs unrelated to this proceeding, and the inclusion of an unspecified amount of costs related to mid-term modifications, the Department finds that Blackstone Gas has not met its burden to demonstrate that its revised program implementation costs are reasonable. Therefore, the Department does not approve Blackstone Gas' revised program implementation costs (Exh. BGC-4 (second rev.)).

The Department has reviewed Blackstone Gas' original proposed estimate of program implementation costs filed on November 2, 2012, and finds that it is reasonable (Exh. BGC-4). As discussed below, Blackstone Gas has demonstrated that its original program implementation cost proposal minimized administrative costs and used competitive procurement processes to the fullest extent practicable. G.L. c. 25, § 19(a), (b); Guidelines §§ 3.3.6, 3.3.7. In addition,

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120 The Department requested Blackstone Gas to provide the number of hours of legal and consulting costs estimated for annual filings and mid-term modification reports in its energy efficiency implementation costs proposals (RR-DPU-BGC-4). Blackstone Gas stated that the estimated hours were not broken down into discrete functions and were estimated primarily based on prior annual filings (RR-DPU-BGC-4).

Blackstone Gas has allocated at least 20 percent of its proposed expenditures to low-income programs and, therefore, the Department finds that Blackstone Gas has complied with the requirements of G.L c. 25, § 19(c) (Exh. BGC-4).

With respect to Blackstone Gas' required showing under G.L. c. 25, § 19(b) that it has minimized its administrative costs to the fullest extent practicable, we note that Blackstone Gas proposes to spend $58,032 on PP&A, which is approximately 20.7 percent of its proposed total three-year expenditures (Exh. BGC-4). Given Blackstone Gas' small size in relation to other gas Program Administrators, we find that this percentage is reasonable.

Further, as discussed above, Blackstone Gas has sought to outsource certain activities associated with the regulatory process and the operation of its Three-Year Plan to National Grid (gas), to reduce or eliminate the additional expenses it will incur due to the Three-Year Plan (Exh. DPU-BGC 1-1). Accordingly, we find that Blackstone Gas sought to minimize administrative costs to the fullest extent practicable, in accordance with G.L. c. 25, § 19(b), without sacrificing program performance.

The Green Communities Act requires the Department to ensure that energy efficiency programs are delivered using competitive procurement processes to the fullest extent practicable. G.L. c. 25, § 19(b). Blackstone Gas contends that it is using competitive procurement processes to the fullest extent practicable and in a manner that minimizes costs to the ratepayers while maximizing the associated return on investment in the competitive procurement of contracts (Program Administrator Brief at 49, citing Exh. Comm-1, at 93). Blackstone Gas has competitively procured a high percentage of its program activities (Exh. BGC-4). Therefore, the Department finds that Blackstone Gas' Three-Year Plan uses competitive procurement processes to the fullest extent practicable, consistent with the requirements of G.L. c. 25, § 19(b).

As discussed above, Blackstone Gas filed a revised estimate of program implementation costs in large part due to increased legal and consultant services associated with review of its Three-Year Plan (Exhs. BGC-4 (rev.); BGC-4 (second rev.)). The Department is particularly concerned about the magnitude of the proposed increase in costs related to legal services. To the extent that its PP&A costs continue to increase, Blackstone Gas has stated that it may reduce its energy efficiency offerings to its customers in order to keep its programs cost-effective (see Tr. 8-A at 28). This is not an acceptable outcome.

As one means to help the Department assess the reasonableness of Blackstone Gas' legal costs in the future, we direct the company to use a competitive procurement for all legal services related to its next energy efficiency three-year plan (i.e., for all planning, as well as related regulatory proceedings). Competitive procurement serves as a means of cost containment and provides an essential, objective benchmark for the reasonableness of the cost of services. Bay State Gas Company, d/b/a Columbia Gas of Massachusetts, D.P.U. 12-25, at 186 (2012); Fitchburg Gas and Electric Light Company, D.P.U. 11-01/11-02, at 236 (2011); New England Gas Company, D.P.U. 10-114, at 221 (2011). Competitive procurement also keeps a consultant or an attorney with an established relationship with a company from taking that relationship for granted. D.P.U. 12-25, at 186; D.P.U. 11-01/11-02, at 236; D.P.U. 10-114, at 221. Blackstone Gas must use a competitive procurement process that is structured and objective, and based on a fair, open, and transparent process. See D.P.U. 12-25, at 186; D.P.U. 11-01/11-02, at 236; D.P.U. 10-114, at 221.

Blackstone Gas shall fully document the competitive procurement process and include all relevant support (e.g., a copy of its RFP, copies of all bids received, bid evaluations, etc.) in its

next three-year plan filing.[121] The Department does not seek to substitute its judgment for that of a company in determining which legal service may be best suited to serve the company's interests, and obtaining legal services through competitive procurement does not mean that a company must necessarily retain the services of the lowest bidder regardless of its qualifications. D.P.U. 12-25, at 186; D.P.U. 11-01/11-02, at 236; D.P.U. 10-114, at 221. Nonetheless, the company bears the burden of demonstrating that its selection of legal counsel was both reasonable and cost-effective. D.P.U. 12-25, at 195-196; D.P.U. 11-01/11-02, at 247-248; D.P.U. 10-114, at 222.

c. Program Cost-Effectiveness

As described above, 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). All programs are cost-effective under the proposed budget filed on November 2, 2012 (Exh. BGC-4). Accordingly, the Department finds that the programs proposed in the Three-Year Plan are cost-effective. See G.L. c. 25, § 21(b)(3). Further, Blackstone Gas must comply with all directives regarding reclassification of programs as core initiatives and non-energy impacts contained in Section VII.D, above.

d. Funding and Bill Impacts

Blackstone Gas filed bill impacts showing the effect of its Three-Year Plan on customers' bills in all rate classes (Exh. BGC-6 (rev.)). In addition, Blackstone Gas complied with the Department's directives in D.P.U. 08-50-D, detailed in Section VIII.A above, by including bill impacts showing three levels of savings (low, medium, and high) that a participant in energy

[121] Failure to comply with this directive may result in the disallowance of legal costs related to Blackstone Gas' next three-year plan. See D.P.U. 11-01/11-02, at 235-236 (company disallowed the recovery of costs of a higher bidder when a comparably lower priced bidder was available).

efficiency could experience during the three-year term (Exh. BGC-6 (rev.)). After review, the Department finds that Blackstone Gas' bill impacts are reasonable[122] (Exh. BGC-6 (rev.)).

The Department's Guidelines provide that gas Program Administrator shall collect funds for the implementation of their energy efficiency plans through their LDAC tariffs. Guidelines § 3.2.2. Blackstone Gas' proposed cost recovery method is consistent with the Guidelines (Exh. BGC-6). Based on our analysis above, the Department finds that Blackstone Gas may recover the funds necessary to implement the original proposed budgets included herein through its EESs. On or before February 21, 2013, Blackstone Gas shall submit a compliance filing[123] showing the calculation of its Residential and C&I EESs for 2013, 2014 and 2015.

e. Alternative Delivery of Energy Efficiency Services

The Attorney General argues that due to Blackstone Gas' size and the costs of program delivery, administration, and regulatory proceedings, Blackstone Gas is unable to offer its customers many of the statewide energy efficiency programs. Accordingly, she recommends that another gas Program Administrator take over the delivery of energy efficiency programs in Blackstone Gas' service territory (Attorney General Brief at 21). Blackstone Gas acknowledges the Attorney General's concerns and states that it intends to explore whether another Program Administrator could better offer all of the available energy efficiency activities presented in the Statewide Plan to its customers (Program Administrator Reply Brief at 25).

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122 Consistent with our findings in Section VIII.E, above, Blackstone Gas should exclude any prior EES over- or under-recoveries in all future energy efficiency bill impact analyses.

123 As discussed above in Section VIII.4, Blackstone Gas shall submit its proposed EESs in accordance with the following schedule: 2013 EESs for effect May 1, 2013; 2014 EESs for effect November 1, 2013; and 2015 EESs for effect November 1, 2014.

The Department shares the Attorney General's concerns about the ability of Blackstone Gas to effectively deliver energy efficiency services given its size. Accordingly, the Department directs Blackstone Gas to work with the Council and other gas Program Administrators to find ways of reducing the cost of providing energy efficiency programs to its customers. With the Council's help and support, we encourage Blackstone Gas to pursue an agreement with another Program Administrator to deliver energy efficiency services in its service territory. Blackstone Gas shall provide the Department with a detailed report on its efforts to comply with the above directives, no later than August 1, 2014. The timing of this report should be sufficient to allow all involved parties to assess Blackstone Gas' progress prior to the next three-year plan proceedings.

f. EM&V

Blackstone Gas must comply with all directives regarding EM&V contained in Section IV.C, above.

4. Conclusion

As discussed above, Blackstone Gas has demonstrated that its Three-Year Plan will capture all available cost-effective energy efficiency opportunities. The Department finds that Blackstone Gas' proposed programs are cost-effective and its program implementation costs are reasonable. Based on the above findings, we conclude that Blackstone Gas' 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 Blackstone Gas' Three-Year Plan. Blackstone Gas shall, on or before February 21, 2013, file a compliance filing with its Residential and C&I EESs for 2013, 2014, and 2015.

D. Job Growth Data

GJC argues that energy efficiency programs create jobs but that the Program Administrators have provided insufficient data to assess the number of jobs created or the demographics of the workforce (GJC Brief at 36). In addition, GJC argues that in order to ensure the expansion of a diverse, well trained workforce, the Program Administrators should be required to provide job training in multiple languages (GJC Reply Brief at 8). GJC recommends that the Department should require the Program Administrators to collect and report data on job growth to the Council, and ensure multilingual training opportunities are available (GJC Brief at 38; GJC Reply Brief at 8).

The Program Administrators argue that the Three-Year Plans fully describe their efforts on job growth. Further, the Program Administrators argue that they provide extensive training to develop the workforce necessary for the energy efficiency programs to succeed (Program Administrator Reply Brief at 32). The Program Administrators argue that GJC's request for additional job growth data seeks too much detail and would result in unnecessary costs, without additional benefits (Program Administrators Reply Brief at 32).

Pursuant to the Green Communities Act, the Three-Year Plans must include "estimated economic benefits for such projects, including job retention, job growth or economic development." G.L. c. 25, § 21(b)(2)(viii). Consistent with this requirement, the Department finds that the Program Administrators have adequately described job growth and economic development in their Three-Year Plan filings (Exh. Comm-1, at 37, 79-80; see also Tr. 7, at 1450-1452). The additional level of job growth data that GJC requests that the Program Administrators provide to the Council is outside the scope of this proceeding and should, instead, be addressed as part of the Council process.

E. Flexibility of Three-Year Plans

AIM argues the Department should review the Three-Year Plans with a more holistic view (AIM Brief at 3). Specifically, AIM states the Three-Year Plans should include greater flexibility to reconcile the goals of the Green Communities Act to reduce energy and the goals of the GWSA to reduce greenhouse gas emissions (AIM Brief at 3-4). AIM claims that the current energy efficiency programs focus on energy reductions but may inadvertently discourage the reduction of greenhouse gas emissions[124] (AIM Brief at 3). In order to address this concern, AIM argues that energy efficiency programs should provide reimbursement for submetering, smart meters, and other equipment upgrades that enable greenhouse gas emissions reductions (AIM Brief at 3-5). In addition, AIM argues that some energy efficiency funding should be directed to programs that support energy efficiency programs in other agencies, such as DEP's education and outreach program for the proper disposal of compact fluorescent lightbulbs (AIM Brief at 5).

The Program Administrators argue that the issues raised by AIM involve program design and, therefore, should be raised by AIM as part of the Council process (Program Administrator Reply Brief at 34). With respect to AIM's particular request to direct energy efficiency funds to agencies such as DEP, the Program Administrators argue that there is no record to support such a proposal and that it raises serious questions about the legitimacy of diverting ratepayer funds to state agencies without clear legislative directives (Program Administrator Reply Brief at 34).

The focus of the Department's review of the Three-Year Plans is to ensure the acquisition of all cost-effective energy efficiency. G.L. c. 25, § 21(d). Contrary to AIM's assertions, this

[124] For example, AIM notes that an energy efficiency incentive is offered to customers to upgrade refrigeration units; however, AIM argues that high-efficiency refrigerators use hydroflourocarbons, a greenhouse gas that DEP is developing regulations to reduce the use of (AIM Brief at 3).

focus does not mean that the requirements of the GWSA are ignored. In fact, emissions reductions are a system benefit of energy efficiency programs and these benefits are accounted for in the TRC test as avoided environmental compliance costs. Guidelines §§ 3.4.3, 3.4.4.1. In addition, as discussed in Section IV above, we encourage the Program Administrators to continue to work with relevant state agencies and stakeholders to refine the method used to track and calculate greenhouse gas emissions reductions from energy efficiency in order to allow the Department and stakeholders to better compare the emissions reductions from energy efficiency with those of the 2020 Climate Plan. With respect to the particular energy initiatives suggested by AIM, we agree with the Program Administrators that these issues relate to energy efficiency program design and, therefore, should be addressed through the Council process.

F. Building Codes

GBREB argues that National Grid (electric) and NSTAR Electric do not involve stakeholders or evaluate cost implications in the development of their recommendations for more stringent energy building codes (GBREB Brief at 11). As such, GBREB argues the Department should prohibit National Grid (electric) and NSTAR Electric from making any recommendations regarding building codes (GBREB Brief at 11). In the alternative, GBREB argues that the Department should eliminate any financial incentive (in the form of performance incentives) for National Grid (electric) and NSTAR Electric to increase the stringency of building codes. Finally, GBREB argues that the Department should require that any communications from the companies about building codes be vetted with a panel of industry experts (GBREB Brief at 11).

The Program Administrators state that they intend to explore the appropriateness of more stringent building codes as part of the Green Communities Act's mandate to acquire all cost-effective energy efficiency (Program Administrator Reply Brief at 36). The Program Administrators contend that the Council will fully review this approach in a public process

(Program Administrator Reply Brief at 36). To this end, the Program Administrators argue that they have engaged in an open and transparent process regarding building codes and standards, including actively participating in public presentations and seeking stakeholder input (Program Administrator Reply Brief at 35-36). Finally, the Program Administrators contend that disagreements regarding more stringent building codes are more properly addressed by the appropriate jurisdictional authorities that promulgate building codes and standards such as the Board of Building Regulations and Standards ("BBRS") or the legislature (Program Administrator Reply Brief at 36).

The Green Communities Act requires Program Administrators to capture all cost-effective energy efficiency. The codes and standards initiative is an effort under the Residential Whole House and C&I New Construction programs targeted at accelerating the advancement of building energy codes and appliance energy efficiency standards (Exhs. DPU-Comm 5-6; Comm-1, at 117-118, 220-222). As discussed in Section IV, above, the Department found that the Program Administrators' programs, including the Residential Whole House and C&I New Construction programs, are designed to achieve all cost-effective energy efficiency.

The Program Administrators plan to collaborate with stakeholders to develop an evaluation plan to measure and attribute savings from the Program Administrators' efforts under this initiative (Exh. Comm-1, at 118, 222). In addition, the Program Administrators have committed to fully discussing their efforts under the codes and standards initiative as part of the Council process and we encourage GBREB to raise its concerns as part of that discussion.[125] With regard to the appropriateness of particular proposed changes to building codes and

[125] The Department notes that pursuant to the Energy Act of 2012, the Massachusetts Association of Realtors is a Council member. St. 2012, c. 209, § 9.

standards, GBREB should raise these concerns with the appropriate jurisdictional authorities, including the BBRS.

G. D.P.U. 08-50 Tables

Previously, gas Program Administrators were not required to submit historical data tables as part of their initial three-year plan filings. For purposes of consistency, in all future three-year plan filings, gas Program Administrators shall be required to file the historical tables contained in Exh. DPU-Comm 1-14(a)-(e).

In addition, DOER recommends that, going forward, electric and gas Program Administrators be required to include all formulas, linkages and pivot tables in their D.P.U. 08-50 Tables (DOER Brief at 16). To make the investigation of all future three-year plan filings more efficient, we direct the Program Administrators to include all formulas, linkages and pivot tables in their D.P.U. 08-50 Tables. Where the inclusion of a particular item is overly burdensome or impractical, active cells should include note or comment regarding how the value was calculated, including references to applicable page(s) in the TRM.

H. Interim Continuation of Energy Efficiency and RCS Programs

Pursuant to the Green Communities Act, Program Administrators are required to file their three-year plans by October 31st of the year prior to the first year of the three-year plan. G.L. c. 25, § 21(d)(1). The Department reviews and must issue an order on the three-year plans within 90 days of filing. G.L. c. 25, § 21(d)(2). As a result of the timing of the Program Administrators' filings and the Department's review, the Program Administrators' approved energy efficiency programs end approximately 30 days prior to the Department's approval of the new three-year plans.

In recognition of the need for continuity of energy efficiency programs, the Department has allowed for the interim continuation of existing energy efficiency programs, pending

approval of proposed new programs under review. See Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, D.P.U. 09-116, Order Approving Motion for Interim Continuation (December 30, 2009); Bay State Gas Company, D.P.U. 08-123, Stamp-Approval (May 29, 2009); The Berkshire Gas Company, D.T.E. 04-38, Stamp-Approval (April 21, 2004); see also Cambridge Electric Company/Commonwealth Electric Company, D.P.U. 92-218, at 18 (1993). Consistent with this practice, in the instant proceeding the Department approved the Program Administrators' requests to continue their existing energy efficiency and RCS programs and budgets approved for plan year 2012, until the Department concludes its investigation of the Three-Year Plans. D.P.U. 12-100 through D.P.U. 12-111, Order on Motions for Interim Continuation of Existing Energy Efficiency and Residential Conservation Programs at 3-4 (December 18, 2012).

In order to ensure the continuity of energy efficiency programs in the future and obviate the need for motions for interim continuation, each Program Administrator may continue all energy efficiency and RCS programs and budgets approved in this Order for plan year 2015, until the Department concludes its investigation of the subsequent three-year plans, unless otherwise directed by the Department.

X. SUMMARY AND CONCLUSION

The Green Communities Act requires each Program Administrator's Three-Year Plan to provide for the acquisition of all available energy efficiency resources. G.L. c. 25, §§ 19(a), 19(b), 21(b)(1); see also Guidelines § 3.4.7. The Department finds that the savings goals included in each Three-Year Plan are reasonable and are consistent with the achievement of all available cost-effective energy efficiency. In order to meet the requirements of the Green Communities Act and the GWSA, the Program Administrators must deploy strategies to enhance their energy efficiency programs, including implementing new technologies and strategies

designed to address barriers to participation. To that end, the Department requires the Program Administrators to form a working group and report to the Department on their progress towards implementing proposed program enhancements (see Section IV.D).

Consistent with the requirements of G.L. c. 25, §§ 19(a), 19(c), 21(b)(2), the Department finds that each Program Administrator's Three-Year Plan: (1) is designed to minimize administrative costs to the fullest extent practicable; (2) includes a budget for low-income programs that exceeds the statutory minimums of ten percent for electric Program Administrators and 20 percent for gas Program Administrators; and (3) uses competitive procurement to the fullest extent practicable. In addition, subject to the findings and conditions contained herein, the Department approves each Program Administrator's program implementation cost budget for the Three-Year Plans (see Section V.D).

Pursuant to the Green Communities Act, the Three-Year Plans include a proposed mechanism designed to provide an incentive to distribution companies based on their success in meeting or exceeding certain performance goals. G.L. c. 25, § 21(b)(2)(v). The Department approves the applicable Program Administrators' proposed: (1) statewide incentive pool; (2) structure of the performance incentive mechanism for the savings and value components; and (3) calculation of the savings and value mechanism payout rates. The Department, however, directs the Program Administrators to recalculate the revised performance incentive threshold levels so that they are consistent with D.P.U. 11-120-A, Phase II (see Section VI.D).

The Green Communities Act requires the Department to ensure that the energy efficiency programs included in the Three-Year Plans are cost-effective. G.L. c. 25, §§ 21(a), 21(b)(3). The Department finds that each Program Administrator: (1) has evaluated the cost-effectiveness of its energy efficiency programs (including hard-to-measure programs) consistent with the

Guidelines; and (2) has demonstrated that, based on the projected benefits and costs (as modified herein) all proposed energy efficiency programs are cost-effective (see Section VII.D).

With respect to program funding, the Department finds that the manner in which each electric Program Administrator calculated its SBC, RGGI, and FCM revenues is reasonable and the manner in which they allocated those revenues to their customer classes is consistent with G.L. c. 25, § 19 and the Guidelines. In addition, the Department finds that the manner in which the electric and gas Program Administrators propose to calculate their EESs is consistent with the Guidelines. After the consideration of: (1) the availability of other private or public funds; (2) whether past programs have lowered the cost of electricity to consumers; and (3) the effect of bill increases on consumers, the Department finds that each Program Administrator may recover the funds to implement the energy efficiency budgets through its EESs (see Section VIII.D).

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.

XI. ORDER

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

ORDERED: That the three-year energy efficiency plans for 2013 through 2015 filed by Bay State Gas Company, d/b/a Columbia Gas of Massachusetts; The Berkshire Gas Company; Blackstone Gas Company; Boston Gas Company and Colonial Gas Company, each d/b/a National Grid; Fitchburg Gas and Electric Company, d/b/a Unitil (gas); NSTAR Gas Company; New England Gas Company; 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; Fitchburg Gas and Electric Light Company, d/b/a Unitil (electric); Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid; NSTAR Electric Company; and Western Massachusetts Electric Company are APPROVED, subject to the exceptions and conditions contained herein, and it is

FURTHER ORDERED: That for calendar year 2016, Bay State Gas Company, d/b/a Columbia Gas of Massachusetts; The Berkshire Gas Company; Blackstone Gas Company; Boston Gas Company and Colonial Gas Company, each d/b/a National Grid; Fitchburg Gas and Electric Company, d/b/a Unitil (gas); NSTAR Gas Company; New England Gas Company; 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; Fitchburg Gas and Electric Light Company, d/b/a Unitil (electric); Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid; NSTAR Electric Company; and Western Massachusetts Electric Company shall continue all energy efficiency and RCS programs and budgets approved for plan year 2015, until the Department concludes its investigation of the subsequent three-year plans, unless otherwise directed by the Department, and it is

FURTHER ORDERED: That Bay State Gas Company, d/b/a Columbia Gas of Massachusetts; The Berkshire Gas Company; Blackstone Gas Company; Boston Gas Company and Colonial Gas Company, each d/b/a National Grid; Fitchburg Gas and Electric Company, d/b/a Unitil (gas); NSTAR Gas Company; New England Gas Company; 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; Fitchburg Gas and Electric Light Company, d/b/a Unitil (electric); Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid; NSTAR Electric Company; and Western Massachusetts Electric Company shall comply with all other directives contained in this Order.

By Order of the Department,

/s/
Ann G. Berwick, Chair

/s/
Jolette A. Westbrook, Commissioner

/s/
David W. Cash, Commissioner

XII. APPENDIX: TABLES

A. Table 1 – Statewide Electric Savings Goals, by Program (Annual MWh)[126]

Sector/Program	2013		2014		2015		2013-2015	
	MWh	%	MWh	%	MWh	%	MWh	%
Residential								
Residential Products	176,609	54%	170,849	47%	171,156	45%	518,614	48%
Residential Whole House	153,113	46%	193,443	53%	209,200	55%	555,756	52%
Residential Total	**329,722**	**100%**	**364,292**	**100%**	**380,356**	**100%**	**1,074,370**	**100%**
Low Income								
Low Income Whole House	28,832	100%	27,753	100%	26,786	100%	83,371	100%
Low Income Total	**28,832**	**100%**	**27,753**	**100%**	**26,786**	**100%**	**83,371**	**100%**
C&I								
C&I New Construction	205,768	25%	177,958	21%	174,844	20%	558,569	22%
C&I Retrofit	630,790	75%	666,310	79%	692,562	80%	1,989,662	78%
C&I Total	**836,559**	**100%**	**844,268**	**100%**	**867,405**	**100%**	**2,548,232**	**100%**
Grand Total								
Residential Total	329,722	28%	364,292	29%	380,356	30%	1,074,370	29%
Low Income Total	28,832	2%	27,753	2%	26,786	2%	83,371	2%
C&I Total	836,559	70%	844,268	68%	867,405	68%	2,548,232	69%
Grand Total	**1,195,112**	**100%**	**1,236,312**	**100%**	**1,274,548**	**100%**	**3,705,972**	**100%**

B. Table 2 – Statewide Gas Savings Goals, by Program (Annual Therms)

Sector/Program	2013		2014		2015		2013-2015	
	Therms	%	Therms	%	Therms	%	Therms	%
Residential								
Residential Products	2,152,649	21%	2,168,908	19%	1,956,370	17%	6,277,926	19%
Residential Whole House	8,138,088	79%	9,438,872	81%	9,649,071	83%	27,226,032	81%
Residential Total	**10,290,737**	**100%**	**11,607,780**	**100%**	**11,605,441**	**100%**	**33,503,958**	**100%**
Low-Income								
Low-Income Whole House	1,397,743	100%	1,438,993	100%	1,486,017	100%	4,322,753	100%
Low-Income Total	**1,397,743**	**100%**	**1,438,993**	**100%**	**1,486,017**	**100%**	**4,322,753**	**100%**
Commercial & Industrial								
C&I New Construction	3,726,554	34%	3,892,973	34%	3,969,993	33%	11,589,519	34%
C&I Retrofit	7,247,305	66%	7,463,003	66%	7,889,501	67%	22,599,809	66%
C&I Total	**10,973,859**	**100%**	**11,355,976**	**100%**	**11,859,494**	**100%**	**34,189,329**	**100%**
Grand Total								
Residential Total	10,290,737	45%	11,607,780	48%	11,605,441	47%	33,503,958	47%
Low Income Total	1,397,743	6%	1,438,993	6%	1,486,017	6%	4,322,753	6%
C&I Total	10,973,859	48%	11,355,976	47%	11,859,494	48%	34,189,329	47%
Grand Total	**22,662,339**	**100%**	**24,402,749**	**100%**	**24,950,951**	**100%**	**72,016,040**	**100%**

[126] Source for Tables 1 & 2: Exh. Comm-40

C. Table 3 – Electric Program Administrator Savings Goals, by Sector (Annual MWh)[127]

Program Administrator/Sector	2013	2014	2015	2013-2015
National Grid (electric)				
Residential	178,275	203,256	213,684	595,216
Low-Income	13,617	13,059	12,501	39,177
Commercial & Industrial	367,228	372,285	388,182	1,127,695
Total Savings	**559,120**	**588,600**	**614,367**	**1,762,088**
NSTAR Electric				
Residential	101,571	109,369	112,964	323,903
Low-Income	9,809	9,289	8,873	27,971
Commercial & Industrial	380,920	384,605	390,137	1,155,661
Total Savings	**492,299**	**503,263**	**511,974**	**1,507,536**
WMECo				
Residential	32,636	34,166	35,935	102,736
Low-Income	3,850	3,702	3,541	11,093
Commercial & Industrial	57,769	60,321	62,434	180,524
Total Savings	**94,255**	**98,189**	**101,910**	**294,354**
Unitil (electric)				
Residential	1,063	1,042	1,003	3,108
Low-Income	235	234	232	701
Commercial & Industrial	6,476	6,609	6,720	19,804
Total Savings	**7,773**	**7,886**	**7,955**	**23,614**
Compact				
Residential	16,177	16,459	16,770	49,406
Low-Income	1,322	1,468	1,639	4,428
Commercial & Industrial	24,166	20,447	19,934	64,547
Total Savings	**41,665**	**38,374**	**38,343**	**118,381**
Grand Total				
Residential Total	329,722	364,292	380,356	1,074,370
Low-Income Total	28,832	27,753	26,786	83,371
Commercial & Industrial Total	836,559	844,268	867,405	2,548,232
Grand Total Savings	**1,195,112**	**1,236,312**	**1,274,548**	**3,705,972**

[127] Sources: Exhs. Comm-40; WMECO-4 (Supp.) (December 21, 2012); NG-Electric-4 (Supp.) (December 21, 2012); NSTAR-Electric-4 (Supp.) (December 21, 2012); CLC-4 (Supp.) (December 21, 2012); FGE-Electric-4 (Supp.) (December 21, 2012).

D. Table 4 – Gas Program Administrator Savings Goals, by Sector (Annual Therms)[128]

Program Administrator/Sector	2013	2014	2015	2013-2015
National Grid (gas)				
Residential	6,284,518	7,412,794	7,363,298	21,060,609
Low-Income	760,057	758,857	758,857	2,277,771
Commercial & Industrial	5,320,581	5,427,563	5,566,513	16,314,657
Total Savings	**12,365,156**	**13,599,214**	**13,688,667**	**39,653,037**
NSTAR Gas				
Residential	1,803,339	1,939,530	1,980,836	5,723,705
Low-Income	300,560	313,130	328,050	941,740
Commercial & Industrial	3,112,495	3,331,999	3,611,957	10,056,451
Total Savings	**5,216,394**	**5,584,659**	**5,920,843**	**16,721,896**
Unitil (gas)				
Residential	30,099	34,096	40,056	104,250
Low-Income	17,265	18,606	19,738	55,609
Commercial & Industrial	127,411	143,967	161,083	432,461
Total Savings	**174,775**	**196,669**	**220,876**	**592,320**
Columbia Gas				
Residential	1,774,601	1,816,539	1,826,643	5,417,783
Low-Income	245,314	269,646	296,410	811,370
Commercial & Industrial	2,032,742	2,034,513	2,050,803	6,118,059
Total Savings	**4,052,657**	**4,120,698**	**4,173,856**	**12,347,212**
Berkshire Gas				
Residential	190,195	192,444	190,581	573,220
Low-Income	42,633	46,841	51,048	140,522
Commercial & Industrial	207,011	243,865	280,767	731,643
Total Savings	**439,840**	**483,149**	**522,396**	**1,445,385**
NEGC				
Residential	207,985	212,378	204,027	624,390
Low-Income	31,914	31,914	31,914	95,742
Commercial & Industrial	173,619	174,069	188,371	536,059
Total Savings	**413,518**	**418,360**	**424,312**	**1,256,191**
Grand Total				
Residential Total	10,290,737	11,607,780	11,605,441	33,503,958
Low-Income Total	1,397,743	1,438,993	1,486,017	4,322,753
Commercial & Industrial Total	10,973,859	11,355,976	11,859,494	34,189,329
Grand Total Savings	**22,662,339**	**24,402,749**	**24,950,951**	**72,016,040**

[128] Sources: Exhs. Berkshire-4 (Supp.) (December 21, 2012); CMA-4 (Supp.) (December 21, 2012); NG-Gas-4 (Supp.) (December 21, 2012); NSTAR-Gas-4 (Supp.) (December 21, 2012); NEGC-4 (Supp.) (December 21, 2012); FGE-Gas-4 (Supp.) (December 21, 2012).

E. Table 5 – Electric Statewide Program Budgets, by Sector ($)[129]

Sector/Program	2013 $	2013 %	2014 $	2014 %	2015 $	2015 %	2013-2015 $	2013-2015 %
Residential Programs								
Residential Whole House	103,907,643	62%	110,588,768	61%	117,537,915	60%	332,034,326	61%
Residential Products	41,729,486	25%	43,593,270	24%	45,139,994	23%	130,462,750	24%
Residential Hard-to-Measure	15,372,018	9%	15,754,148	9%	16,056,712	8%	47,182,878	9%
Residential Total[1]	**166,910,385**	**100%**	**180,740,832**	**100%**	**194,701,183**	**100%**	**542,352,400**	**100%**
Low-Income Programs								
Low-Income Whole House	54,362,352	97%	54,726,698	97%	56,741,396	97%	165,830,446	97%
Low-Income Hard-to-Measure	1,733,394	3%	1,683,227	3%	1,732,147	3%	5,148,768	3%
Low-Income Total[1]	**56,169,647**	**100%**	**56,528,067**	**100%**	**58,633,685**	**100%**	**171,331,400**	**100%**
Commercial & Industrial Programs								
C&I New Construction	63,798,774	21%	58,060,497	18%	58,516,729	17%	180,376,000	18%
C&I Retrofit	222,669,862	73%	234,217,675	72%	246,774,043	71%	703,661,580	72%
C&I Hard-to-Measure	4,112,106	1%	4,104,924	1%	4,133,190	1%	12,350,220	1%
C&I Total[1]	**305,453,827**	**100%**	**323,472,665**	**100%**	**348,861,500**	**100%**	**977,787,992**	**100%**
Grand Total								
Residential Total	166,910,385	32%	180,740,832	32%	194,701,183	32%	542,352,400	32%
Low-Income Total	56,169,647	11%	56,528,067	10%	58,633,685	10%	171,331,400	10%
C&I Total	305,453,827	58%	323,472,665	58%	348,861,500	58%	977,787,992	58%
GRAND TOTAL	**528,533,859**	**100%**	**560,741,564**	**100%**	**602,196,367**	**100%**	**1,691,471,791**	**100%**

[1]LBR is included at the sector level

F. Table 6 – Gas Statewide Program Budgets, by Sector ($)

Sector/Program	2013 $	2013 %	2014 $	2014 %	2015 $	2015 %	2013-2015 $	2013-2015 %
Residential Programs								
Residential Whole House	57,980,655	65%	59,604,044	65%	60,967,623	65%	178,552,322	65%
Residential Products	25,861,121	29%	26,437,513	29%	26,854,321	28%	79,152,955	29%
Residential Hard-to-Measure	3,269,443	4%	3,336,350	4%	3,402,240	4%	10,008,033	4%
Residential Total[1]	**89,303,636**	**100%**	**92,024,464**	**100%**	**94,236,067**	**100%**	**275,564,168**	**100%**
Low-Income Programs								
Low-Income Whole House	34,083,340	97%	35,643,597	97%	37,513,468	97%	107,240,405	97%
Low-Income Hard-to-Measure	981,309	3%	1,007,267	3%	1,049,779	3%	3,038,354	3%
Low-Income Total[1]	**35,084,259**	**100%**	**36,672,410**	**100%**	**38,586,729**	**100%**	**110,343,399**	**100%**
Commercial & Industrial Programs								
C&I New Construction	18,292,924	34%	20,376,784	36%	20,992,039	36%	59,661,747	35%
C&I Retrofit	32,068,447	60%	32,676,842	58%	33,920,153	58%	98,665,443	59%
C&I Hard-to-Measure	979,253	2%	975,177	2%	998,668	2%	2,953,097	2%
C&I Total[1]	**53,243,647**	**100%**	**56,470,968**	**100%**	**58,943,235**	**100%**	**168,657,850**	**100%**
Grand Total								
Residential Total	89,303,636	50%	92,024,464	50%	94,236,067	49%	275,564,168	50%
Low-Income Total	35,084,259	20%	36,672,410	20%	38,586,729	20%	110,343,399	20%
C&I Total	53,243,647	30%	56,470,968	30%	58,943,235	31%	168,657,850	30%
GRAND TOTAL	**177,631,543**	**100%**	**185,167,842**	**100%**	**191,766,031**	**100%**	**554,565,417**	**100%**

[1]LBR is included at the sector level

[129] Sources for Tables 5 & 6: Exh. Comm-40.

G. Table 7 – Electric Program Administrator Budgets, by Sector ($)[130]

Program Administrator/ Sector	2013 $	2014 $	2015 $	2013-2015 $
National Grid (electric)				
Residential	74,688,082	76,283,846	78,164,274	229,136,202
Low-income	26,854,302	26,499,507	26,717,322	80,071,132
C&I	117,321,876	122,737,076	129,893,860	369,952,812
Total	**218,864,260**	**225,520,429**	**234,775,457**	**679,160,145**
NSTAR Electric				
Residential	63,323,690	73,062,908	82,968,306	219,354,904
Low-income	20,276,773	21,065,454	21,999,382	63,341,609
C&I	142,803,881	158,613,671	174,977,727	476,395,279
Total	**226,404,345**	**252,742,032**	**279,945,414**	**759,091,791**
WMECo				
Residential	14,447,924	15,663,670	16,682,609	46,794,203
Low-income	5,011,634	5,077,551	5,359,949	15,449,134
C&I	28,581,368	30,305,498	32,170,836	91,057,702
Total	**48,040,926**	**51,046,719**	**54,213,394**	**153,301,039**
Compact				
Residential	12,990,648	14,241,901	15,373,432	42,605,982
Low-income	3,306,419	3,153,143	3,807,144	10,266,706
C&I	13,591,802	8,589,870	8,532,290	30,713,963
Total	**29,888,870**	**25,984,914**	**27,712,867**	**83,586,651**
Unitil (electric)				
Residential	1,460,040	1,488,507	1,512,561	4,461,109
Low-income	720,519	732,413	749,888	2,202,819
C&I	3,154,900	3,226,550	3,286,787	9,668,236
Total	**5,335,459**	**5,447,470**	**5,549,236**	**16,332,164**
Grand Total				
Residential	166,910,385	180,740,832	194,701,183	542,352,400
Low-income	56,169,647	56,528,067	58,633,685	171,331,400
C&I	305,453,827	323,472,665	348,861,500	977,787,992
GRAND TOTAL	**528,533,859**	**560,741,564**	**602,196,367**	**1,691,471,791**

130 Sources: Exhs. Comm-40; WMECO-4 (Supp.) (December 21, 2012); NG-Electric-4 (Supp.) (December 21, 2012); NSTAR-Electric-4 (Supp.) (December 21, 2012); CLC-4 (Supp.) (December 21, 2012); FGE-Electric-4 (Supp.) (December 21, 2012).

H. Table 8 – Gas Program Administrator Budgets, by Sector ($)[131]

Program Administrator/ Sector	2013 $	2014 $	2015 $	2013-2015 $
National Grid (gas)				
Residential	47,510,011	49,180,821	50,464,463	147,155,295
Low-income	18,775,759	19,301,015	19,803,091	57,879,864
C&I	27,990,309	28,615,409	29,328,235	85,933,953
Total	**94,276,079**	**97,097,244**	**99,595,789**	**290,969,113**
NSTAR Gas				
Residential	20,267,390	21,280,433	22,145,699	63,693,521
Low-income	8,008,347	8,350,283	8,987,960	25,346,591
C&I	15,097,420	17,404,167	18,744,028	51,245,615
Total	**43,373,157**	**47,034,883**	**49,877,687**	**140,285,727**
Berkshire Gas				
Residential	2,354,709	2,388,573	2,426,238	7,169,520
Low-income	785,133	875,573	964,912	2,625,617
C&I	898,380	995,507	1,093,018	2,986,905
Total	**4,038,221**	**4,259,653**	**4,484,167**	**12,782,042**
Columbia Gas				
Residential	17,107,087	16,956,063	17,003,105	51,066,254
Low-income	6,161,530	6,742,435	7,377,714	20,281,680
C&I	7,871,732	7,962,231	8,133,671	23,967,634
Total	**31,140,349**	**31,660,729**	**32,514,491**	**95,315,569**
NEGC				
Residential	1,590,687	1,703,702	1,646,138	4,940,527
Low-income	831,171	832,271	838,551	2,501,993
C&I	754,552	800,720	908,788	2,464,060
Total	**3,176,410**	**3,336,693**	**3,393,477**	**9,906,580**
Unitil (gas)				
Residential	473,753	514,873	550,424	1,539,050
Low-income	522,319	570,833	614,501	1,707,653
C&I	631,254	692,934	735,496	2,059,684
Total	**1,627,326**	**1,778,640**	**1,900,421**	**5,306,387**
Blackstone Gas				
Residential	73,004	73,004	73,004	219,012
Low-income	19,250	19,250	19,250	57,750
C&I	1,313	1,313	1,313	3,938
Total	**93,566**	**93,566**	**93,566**	**280,699**
Grand Total				
Residential	89,376,640	92,097,468	94,309,071	275,783,179
Low-income	35,103,509	36,691,660	38,605,979	110,401,149
C&I	53,244,960	56,472,281	58,944,547	168,661,788
GRAND TOTAL	**177,725,110**	**185,261,409**	**191,859,597**	**554,846,116**

131 Source: Exhs. Berkshire-4 (Supp.) (December 21, 2012); CMA-4 (Supp.) (December 21, 2012); NG-Gas-4 (Supp.) (December 21, 2012); NSTAR-Gas-4 (Supp.) (December 21, 2012); NEGC-4 (Supp.) (December 21, 2012); FGE-Gas-4 (Supp.) (December 21, 2012).

I. Table 9 - Electric Program Administrator Program Planning & Administration Costs by Sector[132]

Program Administrator/ Sector	2013		2014		2015		2013-2015	
	$	%	$	%	$	%	$	%
National Grid (electric)								
Residential	1,377,536	1.8%	1,393,008	1.8%	1,401,719	1.8%	4,172,264	1.8%
Low-income	906,637	3.4%	898,786	3.4%	898,024	3.4%	2,703,446	3.4%
C&I	2,294,655	2.0%	2,356,314	1.9%	2,425,554	1.9%	7,076,522	1.9%
Total	**4,578,827**	**2.1%**	**4,648,108**	**2.1%**	**4,725,297**	**2.0%**	**13,952,232**	**2.1%**
NSTAR Electric								
Residential	3,505,207	5.5%	3,634,918	5.0%	3,538,623	4.3%	10,678,748	4.9%
Low-income	1,681,977	8.3%	1,696,932	8.1%	1,703,108	7.7%	5,082,017	8.0%
C&I	14,197,964	9.9%	14,165,016	8.9%	13,940,712	8.0%	42,303,692	8.9%
Total	**19,385,148**	**8.6%**	**19,496,866**	**7.7%**	**19,182,443**	**6.9%**	**58,064,457**	**7.6%**
WMECo								
Residential	653,849	4.5%	621,280	4.0%	575,011	3.4%	1,850,140	4.0%
Low-income	402,255	8.0%	388,821	7.7%	371,995	6.9%	1,163,071	7.5%
C&I	1,311,207	4.6%	1,244,606	4.1%	1,151,333	3.6%	3,707,146	4.1%
Total	**2,367,311**	**4.9%**	**2,254,707**	**4.4%**	**2,098,339**	**3.9%**	**6,720,357**	**4.4%**
Compact								
Residential	617,786	4.8%	645,112	4.5%	673,804	4.4%	1,936,701	4.5%
Low-income	190,742	5.8%	195,933	6.2%	211,022	5.5%	597,696	5.8%
C&I	486,742	3.6%	509,753	5.9%	533,914	6.3%	1,530,409	5.0%
Total	**1,295,269**	**4.3%**	**1,350,797**	**5.2%**	**1,418,740**	**5.1%**	**4,064,806**	**4.9%**
Unitil (electric)								
Residential	108,195	7.4%	110,356	7.4%	112,178	7.4%	330,729	7.4%
Low-income	52,369	7.3%	53,581	7.3%	54,711	7.3%	160,660	7.3%
C&I	182,053	5.8%	185,669	5.8%	188,569	5.8%	556,291	5.8%
Total	**342,617**	**6.5%**	**349,606**	**6.4%**	**355,458**	**6.4%**	**1,047,680**	**6.4%**
Grand Total								
Residential	6,262,573	3.8%	6,404,675	3.5%	6,301,335	3.2%	18,968,583	3.5%
Low-income	3,233,979	5.8%	3,234,052	5.7%	3,238,859	5.5%	9,706,891	5.7%
C&I	18,472,620	6.0%	18,461,358	5.7%	18,240,082	5.2%	55,174,060	5.6%
GRAND TOTAL	**27,969,172**	**5.3%**	**28,100,084**	**5.0%**	**27,780,276**	**4.6%**	**83,849,533**	**5.0%**

[132] Sources: Exhs. Comm-40; WMECO-4 (Supp.) (December 21, 2012); NG-Electric-4 (Supp.) (December 21, 2012); NSTAR-Electric-4 (Supp.) (December 21, 2012); CLC-4 (Supp.) (December 21, 2012); FGE-Electric-4 (Supp.) (December 21, 2012).

J. Table 10 – Gas Program Administrator Program Planning & Administration Costs by Sector[133]

Program Administrator/ Sector	2013		2014		2015		2013-2015	
	$	%	$	%	$	%	$	%
National Grid (gas)								
Residential	1,270,255	2.7%	1,299,850	2.6%	1,326,890	2.6%	3,896,994	2.6%
Low-income	728,401	3.9%	742,617	3.8%	758,190	3.8%	2,229,208	3.9%
C&I	674,306	2.4%	682,101	2.4%	692,526	2.4%	2,048,933	2.4%
Total	**2,672,963**	**2.8%**	**2,724,567**	**2.8%**	**2,777,605**	**2.8%**	**8,175,136**	**2.8%**
NSTAR Gas								
Residential	1,395,391	6.9%	1,444,549	6.8%	1,497,534	6.8%	4,337,474	6.8%
Low-income	693,383	8.7%	722,294	8.6%	758,243	8.4%	2,173,920	8.6%
C&I	682,494	4.5%	707,661	4.1%	734,865	3.9%	2,125,020	4.1%
Total	**2,771,268**	**6.4%**	**2,874,504**	**6.1%**	**2,990,642**	**6.0%**	**8,636,414**	**6.2%**
Berkshire Gas								
Residential	209,811	8.9%	214,935	9.0%	222,015	9.2%	646,761	9.0%
Low-income	106,608	13.6%	110,039	12.6%	114,338	11.8%	330,986	12.6%
C&I	188,095	20.9%	192,574	19.3%	198,897	18.2%	579,566	19.4%
Total	**504,514**	**12.5%**	**517,548**	**12.2%**	**535,250**	**11.9%**	**1,557,313**	**12.2%**
Columbia Gas								
Residential	1,045,861	6.1%	1,071,103	6.3%	1,104,138	6.5%	3,221,102	6.3%
Low-income	461,711	7.5%	481,039	7.1%	504,301	6.8%	1,447,051	7.1%
C&I	610,011	7.7%	625,753	7.9%	645,792	7.9%	1,881,556	7.9%
Total	**2,117,583**	**6.8%**	**2,177,895**	**6.9%**	**2,254,231**	**6.9%**	**6,549,708**	**6.9%**
NEGC								
Residential	226,568	14.2%	225,481	13.2%	235,735	14.3%	687,783	13.9%
Low-income	120,470	14.5%	119,926	14.4%	125,054	14.9%	365,451	14.6%
C&I	223,267	29.6%	222,180	27.7%	232,436	25.6%	677,882	27.5%
Total	**570,305**	**18.0%**	**567,587**	**17.0%**	**593,225**	**17.5%**	**1,731,117**	**17.5%**
Unitil (gas)								
Residential	42,579	9.0%	45,227	8.8%	47,610	8.6%	135,415	8.8%
Low-income	42,160	8.1%	47,533	8.3%	53,364	8.7%	143,057	8.4%
C&I	46,004	7.3%	49,543	7.1%	52,711	7.2%	148,257	7.2%
Total	**130,742**	**8.0%**	**142,302**	**8.0%**	**153,684**	**8.1%**	**426,729**	**8.0%**
Grand Total								
Residential	4,190,464	4.7%	4,301,145	4.7%	4,433,920	4.7%	12,925,530	4.7%
Low-income	2,152,734	6.1%	2,223,449	6.1%	2,313,491	6.0%	6,689,673	6.1%
C&I	2,424,177	4.6%	2,479,810	4.4%	2,557,227	4.3%	7,461,214	4.4%
GRAND TOTAL	**8,767,375**	**4.9%**	**9,004,403**	**4.9%**	**9,304,638**	**4.9%**	**27,076,416**	**4.9%**

[133] Source: Exhs. Berkshire-4 (Supp.) (December 21, 2012); CMA-4 (Supp.) (December 21, 2012); NG-Gas-4 (Supp.) (December 21, 2012); NSTAR-Gas-4 (Supp.) (December 21, 2012); NEGC-4 (Supp.) (December 21, 2012); FGE-Gas-4 (Supp.) (December 21, 2012).

K. Table 11 – Electric Program Administrator Budget Allocation to Low-Income Sector[134]

Program Administrator/ Sector	2013		2014		2015		2013-2015	
	$	%	$	%	$	%	$	%
National Grid (electric)								
Residential	70,917,280	34%	72,597,909	34%	74,477,021	34%	217,992,209	34%
Low-income	**25,868,918**	**13%**	**25,752,114**	**12%**	**25,930,614**	**12%**	**77,551,646**	**12%**
C&I	109,253,270	53%	113,971,277	54%	120,773,793	55%	343,998,340	54%
Total	206,039,468	100%	212,321,300	100%	221,181,428	100%	639,542,195	100%
NSTAR Electric								
Residential	54,764,288	28%	59,641,555	29%	64,090,509	30%	178,496,352	29%
Low-income	**19,476,314**	**10%**	**20,408,165**	**10%**	**21,267,417**	**10%**	**61,151,896**	**10%**
C&I	120,726,477	62%	123,593,022	61%	127,649,784	60%	371,969,284	61%
Total	194,967,079	100%	203,642,742	100%	213,007,710	100%	611,617,532	100%
WMECo								
Residential	13,697,177	30%	14,926,747	31%	15,914,193	31%	44,538,117	30%
Low-income	**4,785,474**	**10%**	**4,893,712**	**10%**	**5,175,451**	**10%**	**14,854,637**	**10%**
C&I	27,399,062	60%	29,049,504	59%	30,813,890	59%	87,262,456	60%
Total	45,881,713	100%	48,869,963	100%	51,903,534	100%	146,655,210	100%
Compact								
Residential	12,990,648	43%	14,241,901	55%	15,373,432	55%	42,605,982	51%
Low-income	**3,306,419**	**11%**	**3,153,143**	**12%**	**3,807,144**	**14%**	**10,266,706**	**12%**
C&I	13,591,802	45%	8,589,870	33%	8,532,290	31%	30,713,963	37%
Total	29,888,870	100%	25,984,914	100%	27,712,867	100%	83,586,651	100%
Unitil (electric)								
Residential	1,413,098	28%	1,444,288	28%	1,467,838	28%	4,325,224	28%
Low-income	**699,708**	**14%**	**716,569**	**14%**	**732,501**	**14%**	**2,148,778**	**14%**
C&I	2,972,898	58%	3,038,501	58%	3,088,567	58%	9,099,966	58%
Total	5,085,704	100%	5,199,357	100%	5,288,906	100%	15,573,967	100%
Grand Total								
Residential	153,782,491	32%	162,852,400	33%	171,322,993	33%	487,957,884	33%
Low-income	**54,136,833**	**11%**	**54,923,703**	**11%**	**56,913,126**	**11%**	**165,973,663**	**11%**
C&I	273,943,509	57%	278,242,174	56%	290,858,326	56%	843,044,008	56%
GRAND TOTAL	481,862,833	100%	496,018,277	100%	519,094,446	100%	1,496,975,555	100%

134 Sources: Exhs. Comm-40; WMECO-4 (Supp.) (December 21, 2012); NG-Electric-4 (Supp.) (December 21, 2012); NSTAR-Electric-4 (Supp.) (December 21, 2012); CLC-4 (Supp.) (December 21, 2012); FGE-Electric-4 (Supp.) (December 21, 2012).

L. Table 12 – Gas Program Administrator Budget Allocation to Low-Income Sector[135]

Program Administrator/ Sector	2013		2014		2015		2013-2015	
	$	%	$	%	$	%	$	%
National Grid (gas)								
Residential	46,339,453	51%	47,917,753	51%	49,219,268	54%	143,476,474	51%
Low-income	**18,373,097**	**20%**	**18,871,881**	**20%**	**19,380,321**	**21%**	**56,625,299**	**20%**
C&I	26,966,497	29%	27,509,215	29%	28,122,267	31%	82,597,979	29%
Total	91,679,048	100%	94,298,849	100%	96,721,857	100%	282,699,753	100%
NSTAR Gas								
Residential	17,729,723	46%	18,258,007	45%	18,747,182	44%	54,734,912	45%
Low-income	**7,881,272**	**21%**	**8,207,117**	**20%**	**8,845,403**	**21%**	**24,933,793**	**20%**
C&I	12,737,724	33%	14,474,204	35%	15,206,098	36%	42,418,027	35%
Total	38,348,718	100%	40,939,329	100%	42,798,684	100%	122,086,731	100%
Berkshire Gas								
Residential	2,216,159	60%	2,245,433	58%	2,284,168	56%	6,745,760	58%
Low-income	**747,376**	**20%**	**832,944**	**21%**	**919,478**	**22%**	**2,499,798**	**21%**
C&I	751,638	20%	819,272	21%	889,800	22%	2,460,710	21%
Total	3,715,173	100%	3,897,649	100%	4,093,446	100%	11,706,268	100%
Columbia Gas								
Residential	16,487,590	55%	16,319,836	53%	16,382,115	54%	49,189,541	53%
Low-income	**6,071,886**	**20%**	**6,633,560**	**22%**	**7,265,687**	**24%**	**19,971,134**	**22%**
C&I	7,522,341	25%	7,593,489	25%	7,766,162	26%	22,881,992	25%
Total	30,081,817	100%	30,546,886	100%	31,413,963	100%	92,042,666	100%
NEGC								
Residential	1,551,975	50%	1,661,032	51%	1,605,198	52%	4,818,205	50%
Low-income	**818,083**	**27%**	**818,473**	**25%**	**824,980**	**27%**	**2,461,536**	**26%**
C&I	716,339	23%	767,730	24%	871,234	28%	2,355,303	24%
Total	3,086,397	100%	3,247,235	100%	3,301,412	100%	9,635,044	100%
Unitil (gas)								
Residential	453,481	29%	492,374	29%	525,730	34%	1,471,585	29%
Low-income	**517,261**	**33%**	**564,363**	**33%**	**608,115**	**39%**	**1,689,739**	**33%**
C&I	591,021	38%	640,555	38%	682,930	44%	1,914,506	38%
Total	1,561,763	100%	1,697,291	100%	1,816,776	100%	5,075,830	100%
Blackstone Gas								
Residential	73,004	78%	73,004	78%	73,004	78%	219,012	78%
Low-income	**19,250**	**21%**	**19,250**	**21%**	**19,250**	**21%**	**57,750**	**21%**
C&I	1,313	1%	1,313	1%	1,313	1%	3,938	1%
Total	93,566	100%	93,566	100%	93,566	100%	280,699	100%
Grand Total								
Residential	84,851,385	50%	86,967,439	50%	88,836,665	49%	260,655,489	50%
Low-income	**34,428,225**	**20%**	**35,947,589**	**21%**	**37,863,236**	**21%**	**108,239,049**	**21%**
C&I	49,286,872	29%	51,805,778	30%	53,539,804	30%	154,632,454	30%
GRAND TOTAL	168,566,482	100%	174,720,805	100%	180,239,705	100%	523,526,992	100%

135 Source: Exhs. Berkshire-4 (Supp.) (December 21, 2012); CMA-4 (Supp.) (December 21, 2012); NG-Gas-4 (Supp.) (December 21, 2012); NSTAR-Gas-4 (Supp.) (December 21, 2012); NEGC-4 (Supp.) (December 21, 2012); FGE-Gas-4 (Supp.) (December 21, 2012).

M. Table 13 – Electric Program Administrator Cost-Effectiveness, by Sector ($)[136]

	2013			2014			2015			2013-2015		
Program Administrator/Sector	**BCR**	**Benefits**	**Costs**	**BCR**	**Benefits**	**Costs**	**BCR**	**Benefits**	**Costs**	**BCR**	**Benefits**	**Costs**
National Grid (electric)												
Residential	3.29	315,946,699	95,987,021	3.49	338,995,874	97,121,439	3.41	334,703,853	98,117,110	3.40	989,646,427	291,225,570
Low-Income	2.03	54,668,030	26,903,402	2.18	56,775,107	26,069,065	2.19	56,215,985	25,640,731	2.13	167,659,122	78,613,197
Commercial & Industrial	4.14	726,789,967	175,681,164	4.47	821,199,802	183,866,735	4.49	849,502,062	189,244,978	4.37	2,397,491,830	548,792,877
Total	**3.68**	**1,097,404,696**	**298,571,587**	**3.96**	**1,216,970,783**	**307,057,239**	**3.96**	**1,240,421,900**	**313,002,819**	**3.87**	**3,554,797,379**	**918,631,644**
NSTAR Electric												
Residential	3.03	218,353,994	71,946,799	3.10	241,425,829	77,785,774	3.23	265,108,497	82,128,344	3.13	724,888,320	231,860,916
Low-Income	1.75	37,449,222	21,383,499	1.84	39,934,035	21,657,165	1.83	39,776,445	21,791,422	1.81	117,159,703	64,832,087
Commercial & Industrial	3.73	661,870,564	177,602,687	4.13	751,073,965	181,937,099	4.10	743,483,953	181,483,265	3.99	2,156,428,482	541,023,051
Total	**3.39**	**917,673,781**	**270,932,985**	**3.67**	**1,032,433,829**	**281,380,037**	**3.67**	**1,048,368,895**	**285,403,032**	**3.58**	**2,998,476,505**	**837,716,054**
WMECo												
Residential	3.66	64,167,962	17,508,329	3.70	68,422,405	18,512,588	3.76	70,308,123	18,681,240	3.71	202,898,490	54,702,157
Low-Income	2.89	14,951,229	5,169,552	2.97	15,122,516	5,100,000	2.77	14,519,196	5,244,505	2.87	44,592,940	15,514,057
Commercial & Industrial	2.78	112,165,253	40,400,862	3.00	124,028,300	41,403,847	3.08	132,644,349	43,071,700	2.95	368,837,901	124,876,409
Total	**3.03**	**191,284,443**	**63,078,743**	**3.19**	**207,573,221**	**65,016,435**	**3.25**	**217,471,667**	**66,997,445**	**3.16**	**616,329,332**	**195,092,623**
Unitil (electric)												
Residential	2.10	3,639,271	1,734,739	2.29	4,028,143	1,761,854	2.24	3,977,488	1,776,458	2.21	11,644,902	5,273,051
Low-Income	1.57	1,275,883	814,737	1.66	1,325,963	798,683	1.74	1,386,097	798,368	1.65	3,987,943	2,411,788
Commercial & Industrial	2.76	16,153,064	5,848,454	3.24	17,323,819	5,345,417	3.31	18,129,751	5,481,577	3.09	51,606,635	16,675,448
Total	**2.51**	**21,068,219**	**8,397,930**	**2.87**	**22,677,925**	**7,905,954**	**2.92**	**23,493,337**	**8,056,403**	**2.76**	**67,239,480**	**24,360,287**
Compact												
Residential	4.34	65,841,796	15,159,384	4.52	74,177,768	16,403,517	4.56	79,492,271	17,448,464	4.48	219,511,836	49,011,365
Low-Income	3.87	12,790,247	3,306,944	3.45	10,576,309	3,068,367	3.63	13,066,730	3,604,535	3.65	36,433,286	9,979,846
Commercial & Industrial	3.23	47,221,377	14,614,165	4.66	43,544,784	9,339,721	4.67	42,138,068	9,020,637	4.03	132,904,230	32,974,524
Total	**3.80**	**125,853,421**	**33,080,493**	**4.45**	**128,298,861**	**28,811,606**	**4.48**	**134,697,069**	**30,073,636**	**4.23**	**388,849,351**	**91,965,735**
Grand Total												
Residential Total	3.30	667,949,722	202,336,271	3.44	727,050,020	211,585,172	3.45	753,590,232	218,151,616	3.40	2,148,589,974	632,073,059
Low-Income Total	2.10	121,134,612	57,578,135	2.18	123,733,929	56,693,280	2.19	124,964,453	57,079,561	2.16	369,832,994	171,350,976
Commercial & Industrial Total	3.78	1,564,200,225	414,147,331	4.16	1,757,170,670	421,892,819	4.17	1,785,898,183	428,302,158	4.04	5,107,269,077	1,264,342,308
Grand Total	**3.49**	**2,353,284,559**	**674,061,737**	**3.78**	**2,607,954,619**	**690,171,270**	**3.79**	**2,664,452,868**	**703,533,335**	**3.69**	**7,625,692,046**	**2,067,766,342**

136 Sources: Exhs. Comm-40; WMECO-4 (Supp.) (December 21, 2012); NG-Electric-4 (Supp.) (December 21, 2012); NSTAR-Electric-4 (Supp.) (December 21, 2012); CLC-4 (Supp.) (December 21, 2012); FGE-Electric-4 (Supp.) (December 21, 2012).

N. Table 14 – Gas Program Administrator Cost-Effectiveness, by Sector ($)[137]

	2013			2014			2015			2013-2015		
Program Administrator/Sector	**BCR**	**Benefits**	**Costs**	**BCR**	**Benefits**	**Costs**	**BCR**	**Benefits**	**Costs**	**BCR**	**Benefits**	**Costs**
National Grid (gas)												
Residential	1.61	111,443,254	69,038,758	1.67	115,127,238	69,043,160	1.68	114,267,010	68,176,785	1.65	340,837,502	206,258,703
Low-Income	1.79	33,586,015	18,775,759	1.78	33,474,912	18,790,567	1.79	33,658,124	18,768,869	1.79	100,719,050	56,335,195
Commercial & Industrial	2.24	83,967,835	37,496,191	2.33	86,832,909	37,229,932	2.53	94,156,518	37,166,402	2.37	264,957,262	111,892,525
Total	**1.83**	**228,997,104**	**125,310,708**	**1.88**	**235,435,059**	**125,063,659**	**1.95**	**242,081,652**	**124,112,056**	**1.89**	**706,513,815**	**374,486,423**
NSTAR Gas												
Residential	1.65	40,351,435	24,487,301	1.69	41,490,974	24,572,910	1.72	42,531,525	24,664,759	1.69	124,373,934	73,724,969
Low-Income	1.42	11,377,562	8,008,347	1.44	11,725,279	8,124,424	1.43	12,156,922	8,508,322	1.43	35,259,763	24,641,093
Commercial & Industrial	2.15	46,257,026	21,536,800	2.10	49,494,114	23,533,428	2.17	52,398,864	24,126,777	2.14	148,150,004	69,197,005
Total	**1.81**	**97,986,023**	**54,032,447**	**1.83**	**102,710,367**	**56,230,762**	**1.87**	**107,087,311**	**57,299,858**	**1.84**	**307,783,701**	**167,563,068**
Columbia Gas												
Residential	2.13	52,775,856	24,757,422	2.21	52,273,376	23,602,009	2.24	51,337,609	22,883,143	2.20	156,386,841	71,242,575
Low-Income	1.27	7,828,536	6,161,530	1.31	8,573,630	6,560,066	1.34	9,385,461	6,984,006	1.31	25,787,627	19,705,602
Commercial & Industrial	2.27	27,990,507	12,331,103	2.32	28,195,056	12,131,724	2.36	28,588,726	12,139,047	2.32	84,774,290	36,601,874
Total	**2.05**	**88,594,900**	**43,250,055**	**2.11**	**89,042,062**	**42,293,799**	**2.13**	**89,311,796**	**42,006,196**	**2.09**	**266,948,758**	**127,550,050**
Unitil (gas)												
Residential	1.23	987,377	802,242	1.22	1,059,894	868,927	1.35	1,252,748	931,010	1.27	3,300,019	2,602,178
Low-Income	1.02	532,168	522,319	1.02	576,639	567,711	1.02	617,257	607,796	1.02	1,726,063	1,697,827
Commercial & Industrial	2.68	2,888,595	1,078,257	3.00	3,627,550	1,210,127	3.36	3,691,666	1,099,108	3.01	10,207,812	3,387,493
Total	**1.83**	**4,408,140**	**2,402,819**	**1.99**	**5,264,082**	**2,646,765**	**2.11**	**5,561,671**	**2,637,915**	**1.98**	**15,233,894**	**7,687,498**
Berkshire Gas												
Residential	1.52	4,969,705	3,269,286	1.56	5,024,577	3,221,354	1.58	5,013,160	3,179,940	1.55	15,007,442	9,670,580
Low-Income	1.89	1,447,061	765,522	1.88	1,558,113	830,910	1.87	1,669,013	891,156	1.88	4,674,187	2,487,588
Commercial & Industrial	3.21	4,215,932	1,311,934	3.54	5,006,644	1,414,910	3.84	5,805,890	1,511,702	3.55	15,028,465	4,238,546
Total	**1.99**	**10,632,698**	**5,346,742**	**2.12**	**11,589,334**	**5,467,174**	**2.24**	**12,488,062**	**5,582,798**	**2.12**	**34,710,094**	**16,396,714**
NEGC												
Residential	1.69	3,572,985	2,109,483	1.71	3,867,578	2,262,053	1.71	3,727,182	2,174,034	1.71	11,167,745	6,545,570
Low-Income	1.45	1,202,259	831,171	1.48	1,196,413	809,759	1.50	1,190,064	793,803	1.47	3,588,735	2,434,733
Commercial & Industrial	2.84	2,939,380	1,035,775	2.21	2,629,845	1,192,446	2.47	2,955,967	1,195,445	2.49	8,525,192	3,423,666
Total	**1.94**	**7,714,624**	**3,976,429**	**1.80**	**7,693,836**	**4,264,258**	**1.89**	**7,873,213**	**4,163,282**	**1.88**	**23,281,673**	**12,403,969**
Grand Total												
Residential Total	1.72	214,100,613	124,464,491	1.77	218,843,637	123,570,413	1.79	218,129,234	122,009,672	1.76	651,073,483	370,044,575
Low-Income Total	1.60	55,973,600	35,064,648	1.60	57,104,984	35,683,437	1.61	58,676,841	36,553,952	1.60	171,755,425	107,302,037
Commercial & Industrial Total	2.25	168,259,276	74,790,060	2.29	175,786,119	76,712,568	2.43	187,597,631	77,238,482	2.32	531,643,026	228,741,110
Grand Total	**1.87**	**438,333,488**	**234,319,199**	**1.91**	**451,734,740**	**235,966,418**	**1.97**	**464,403,706**	**235,802,106**	**1.92**	**1,354,471,934**	**706,087,723**

137 Source: Exhs. Berkshire-4 (Supp.) (December 21, 2012); CMA-4 (Supp.) (December 21, 2012); NG-Gas-4 (Supp.) (December 21, 2012); NSTAR-Gas-4 (Supp.) (December 21, 2012); NEGC-4 (Supp.) (December 21, 2012); FGE-Gas-4 (Supp.) (December 21, 2012).

O. Table 15 – Statewide Electric Program Cost-Effectiveness 2013-2015, by Sector ($)[138]

Sector/Program	Benefit-Cost Ratio	Electric Benefits						Non-Electric Benefits		Total Benefits
		Avoided Energy	Avoided Capacity	Avoided Transmission	Avoided Distribution	DRIPE Capacity	DRIPE Energy	Resource	Non-Resource	
Residential										
Residential Products	3.36	311,851,578	22,872,172	11,910,963	51,013,916	34,682,757	120,710,052	(1,125,772)	39,396,448	591,312,114
Residential Whole House	3.78	161,197,662	21,204,760	7,126,497	31,017,328	12,601,737	52,316,463	618,607,322	653,206,091	1,557,277,860
Residential Total	**3.39**	**473,049,239**	**44,076,933**	**19,037,461**	**82,031,244**	**47,284,494**	**173,026,515**	**617,481,550**	**692,602,539**	**2,148,589,974**
Low Income										
Low-Income Whole House	2.22	64,034,304	6,308,101	2,485,621	10,864,446	7,399,599	21,522,379	122,542,611	134,675,933	369,832,994
Low Income Total	**2.15**	**64,034,304**	**6,308,101**	**2,485,621**	**10,864,446**	**7,399,599**	**21,522,379**	**122,542,611**	**134,675,933**	**369,832,994**
Commercial & Industrial										
C&I New Construction	5.16	683,033,747	82,121,973	28,894,179	127,361,049	92,853,824	198,473,149	(30,264,904)	1,471,702	1,183,944,719
C&I Retrofit	3.80	2,269,707,784	231,823,838	82,073,096	363,083,098	278,234,979	681,789,690	(473,372,464)	489,984,338	3,923,324,358
C&I Total	**4.01**	**2,952,741,531**	**313,945,811**	**110,967,275**	**490,444,146**	**371,088,803**	**880,262,839**	**(503,637,368)**	**491,456,041**	**5,107,269,077**
Grand Total										
Residential Total	3.39	473,049,239	44,076,933	19,037,461	82,031,244	47,284,494	173,026,515	617,481,550	692,602,539	2,148,589,974
Low Income Total	2.15	64,034,304	6,308,101	2,485,621	10,864,446	7,399,599	21,522,379	122,542,611	134,675,933	369,832,994
C&I Total	4.01	2,952,741,531	313,945,811	110,967,275	490,444,146	371,088,803	880,262,839	(503,637,368)	491,456,041	5,107,269,077
Grand Total	**3.67**	**3,489,825,074**	**364,330,844**	**132,490,357**	**583,339,836**	**425,772,896**	**1,074,811,733**	**236,386,793**	**1,318,734,513**	**7,625,692,046**

[138]Source: Exh. Comm-40.

P. Table 16 – Statewide Gas Program Cost-Effectiveness 2013-2015, by Sector ($)[139]

Sector/Program	Benefit-Cost Ratio				Non-Gas Benefits		
			Electric		Water	Non-Resource	Total Benefits
		Gas	Capacity	Energy			
Residential							
Residential Products	1.62	105,835,720	4,283,475	844,031	-	119,817,230	230,780,456
Residential Whole House	1.93	221,658,879	35,590,366	20,617,759	12,347,984	130,078,040	420,293,027
Residential Total	**1.76**	**327,494,599**	**39,873,840**	**21,461,790**	**12,347,984**	**249,895,270**	**651,073,483**
Low Income							
Low-Income Whole House	1.65	80,387,331	8,301,270	3,793,601	1,564,370	77,708,853	171,755,425
Low Income Total	**1.60**	**80,387,331**	**8,301,270**	**3,793,601**	**1,564,370**	**77,708,853**	**171,755,425**
Commercial & Industrial							
C&I New Construction	2.52	204,891,086	14,684	344,283	1,351,689	-	206,601,741
C&I Retrofit	2.26	240,010,493	1,810	7,054	19,072,917	65,949,010	325,041,284
C&I Total	**2.32**	**444,901,579**	**16,494**	**351,337**	**20,424,606**	**65,949,010**	**531,643,026**
Grand Total							
Residential Total	1.76	327,494,599	39,873,840	21,461,790	12,347,984	249,895,270	651,073,483
Low Income Total	1.60	80,387,331	8,301,270	3,793,601	1,564,370	77,708,853	171,755,425
C&I Total	2.32	444,901,579	16,494	351,337	20,424,606	65,949,010	531,643,026
Grand Total	**1.92**	**852,783,508**	**48,191,605**	**25,606,727**	**34,336,961**	**393,553,133**	**1,354,471,934**

[139] Source: Exh. Comm-40.

Q. Table 17 – Electric Program Administrator Funding Sources[140]

Program Administrator/Source	2013		2014		2015		2013-2015	
	$	%	$	%	$	%	$	%
National Grid (electric)								
SBC	55,183,432	25%	56,921,157	25%	58,188,846	25%	170,293,435	25%
FCM	6,025,965	3%	8,085,682	4%	12,277,616	5%	26,389,262	4%
RGGI	14,168,457	6%	14,456,142	6%	13,716,362	6%	42,340,962	6%
Outside	0	0%	0	0%	0	0%	0	0%
Carryover	39,263,393	18%	0	0%	0	0%	39,263,393	6%
EERF	104,223,012	48%	146,057,448	65%	150,592,633	64%	400,873,093	59%
Total	**218,864,260**	**100%**	**225,520,429**	**100%**	**234,775,457**	**100%**	**679,160,145**	**100%**
NSTAR Electric								
SBC	49,001,179	23%	48,986,007	21%	49,032,313	19%	147,019,499	21%
FCM	6,109,063	3%	7,473,518	3%	9,381,350	4%	22,963,931	3%
RGGI	12,310,349	6%	12,560,305	5%	11,917,543	5%	36,788,198	5%
Outside	0	0%	0	0%	0	0%	0	0%
Carryover	59,724,157	28%	0	0%	0	0%	59,724,157	8%
EERF	83,003,068	39%	166,558,069	71%	192,062,323	73%	441,623,461	62%
Total	**210,147,816**	**100%**	**235,577,900**	**100%**	**262,393,530**	**100%**	**708,119,245**	**100%**
WMECo								
SBC	9,067,035	19%	9,101,995	18%	9,041,069	17%	27,210,099	18%
FCM	775,207	2%	1,108,411	2%	1,518,595	3%	3,402,213	2%
RGGI	2,347,725	5%	2,395,394	5%	2,272,812	4%	7,015,931	5%
Outside	0	0%	0	0%	0	0%	0	0%
Carryover	4,747,967	10%	0	0%	0	0%	4,747,967	3%
EERF	31,102,992	65%	38,440,919	75%	41,380,918	76%	110,924,829	72%
Total	**48,040,926**	**100%**	**51,046,719**	**100%**	**54,213,394**	**100%**	**153,301,039**	**100%**
Unitil (electric)								
SBC	1,133,458	19%	1,139,791	23%	1,146,125	21%	3,419,373	21%
FCM	159,324	3%	171,084	4%	183,712	3%	514,120	3%
RGGI	310,192	5%	316,490	6%	300,294	5%	926,975	6%
Outside	0	0%	0	0%	0	0%	0	0%
Carryover	1,351,371	23%	0	0%	0	0%	1,351,371	8%
EERF	2,960,534	50%	3,260,019	67%	3,917,006	71%	10,137,559	62%
Total	**5,914,879**	**100%**	**4,887,384**	**100%**	**5,547,136**	**100%**	**16,349,399**	**100%**
Compact								
SBC	4,999,989	17%	4,985,943	19%	4,983,355	18%	14,969,286	18%
FCM	561,292	2%	692,906	3%	867,367	3%	2,121,564	3%
RGGI	1,274,218	4%	1,300,091	5%	1,233,560	4%	3,807,869	5%
Outside	0	0%	0	0%	0	0%	0	0%
Carryover	-1,304,332	-4%	0	0%	0	0%	-1,304,332	-2%
EERF	24,357,703	81%	19,005,975	73%	20,628,586	74%	63,992,264	77%
Total	**29,888,870**	**100%**	**25,984,914**	**100%**	**27,712,867**	**100%**	**83,586,651**	**100%**
Grand Total								
SBC Total	119,385,093	23%	121,134,892	22%	122,391,707	21%	362,911,692	22%
FCM Total	13,630,850	3%	17,531,601	3%	24,228,639	4%	55,391,091	3%
RGGI Total	30,410,941	6%	31,028,422	6%	29,440,572	5%	90,879,935	6%
Outside Total	0	0%	0	0%	0	0%	0	0%
Carryover	103,782,556	20%	0	0%	0	0%	103,782,556	6%
EERF Total	245,647,310	48%	373,322,430	69%	408,581,466	70%	1,027,551,206	63%
Grand Total	**512,856,750**	**100%**	**543,017,346**	**100%**	**584,642,384**	**100%**	**1,640,516,479**	**100%**

140 Sources: Exhs. Comm-40; WMECO-4 (Supp.) (December 21, 2012); NG-Electric-4 (Supp.) (December 21, 2012); NSTAR-Electric-4 (Supp.) (December 21, 2012); CLC-4 (Supp.) (December 21, 2012); FGE-Electric-4 (Supp.) (December 21, 2012).

XIII. APPENDIX: REVISED THRESHOLD LEVEL CALCULATION

1 Calculate a single statewide three-year threshold level for Program Administrators with savings goals at or below the Council's targets according to the following formula:

$$T = \frac{[(0.75 * SEG_{2013}) + (0.75 * SEG_{2014}) + (0.80 * SEG_{2015})]}{SEG_{Total}}$$

where:

T = three-year statewide threshold level for the savings and value mechanism, rounded to the hundredth percent (i.e., four decimal places);

SEGn = statewide Council goal for year n (in kWh for electric Program Administrators, less the savings of the Compact or therms for gas Program Administrators); and

SEGtotal = the combined three-year statewide Council goal (in kWh for electric Program Administrators, less the savings of the Compact, or therms for gas Program Administrators);

2 Adjust the three-year statewide threshold level for Program Administrators who have agreed to goals in excess of the Council's goals according to the following formula:[141]

$$T_{adj} = T * (\frac{G_{EEAC}}{G_{PA}})$$

where:

T_{adj} = adjusted threshold level, rounded to the hundredth percent (i.e., four decimal places);

T = statewide three-year threshold as calculated above;

G_{EEAC} = the combined three-year Council goal for the Program Administrator; and

G_{PA} = the combined three-year goal agreed to by the Program Administrator in Exh. Comm-6 (Supp. 2) filed December 21, 2012.

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141 This is the same method of adjusting the threshold level proposed by the Program Administrators and approved by the Council (Exh. Comm-1, at 249).

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.