The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 15-160 January 28, 2016

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 2016 through 2018.

D.P.U. 15-161

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 2016 through 2018.

D.P.U. 15-162

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 2016 through 2018.

D.P.U. 15-163

Petition of Liberty Utilities (New England Natural Gas Company) Corp., d/b/a Liberty Utilities, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2016 through 2018.

D.P.U. 15-164

Petition of NSTAR Gas Company, d/b/a Eversource Energy, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2016 through 2018.

D.P.U. 15-165

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 2016 through 2018.

D.P.U. 15-166

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 2016 through 2018.

D.P.U. 15-167

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 2016 through 2018.

D.P.U. 15-168

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 2016 through 2018.

D.P.U. 15-169

Petition of NSTAR Electric Company and Western Massachusetts Electric Company, each d/b/a Eversource Energy, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2016 through 2018.

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I. INTRODUCTION

On October 30, 2015, Bay State Gas Company, d/b/a Columbia Gas of Massachusetts ("Columbia"); The Berkshire Gas Company ("Berkshire"); Boston Gas Company and Colonial Gas Company, each d/b/a National Grid ("National Grid (gas)");[1] Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil (gas)"); NSTAR Gas Company, d/b/a Eversource Energy ("NSTAR Gas"); Liberty Utilities (New England Natural Gas Company) Corp., d/b/a Liberty Utilities ("Liberty"); 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)"); NSTAR Electric Company and Western Massachusetts Electric Company, each d/b/a Eversource Energy ("NSTAR Electric - WMECo"); and 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 2016 through 2018 ("Three-Year Plans"). The Program Administrators filed their Three-Year Plans pursuant to G.L. c. 25, §§ 19, 21-22 ("Green Communities Act"), as amended by An Act Relative to Competitively Priced Electricity in the Commonwealth, St. 2012, c. 209 ("Energy Act of 2012"), G.L. c. 25A § 11G, and Investigation by the Department of Public

[1] For the 2016 through 2018 term, National Grid (gas) will also provide energy efficiency services to Blackstone Gas Company customers pursuant to the Department's Order in Blackstone Gas Company, and Boston Gas Company and Colonial Gas Company, D.P.U. 15-79 (2015).

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); D.P.U. 08-50-C (2011); D.P.U. 08-50-D (2012); 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 (2013) ("Guidelines"). Each Program Administrator seeks approval of its Three-Year Plan, including proposed programs, program budgets, and, with the exception of the Compact, a proposed performance incentive mechanism.[2] Pursuant to the Energy Act of 2012, the Program Administrators have also incorporated their Residential Conservation Services ("RCS") filings in their respective Three-Year Plans.

On November 2, 2015, the Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention pursuant to G.L. c. 12, § 11E in each Three-Year Plan docket. On November 5, 2015, the Department granted the petitions to intervene of the Massachusetts Department of Energy Resources ("DOER"), Conservation Law Foundation ("CLF"), Low-Income Weatherization and Fuel Assistance Program Network and the Low-Income Energy Affordability Network ("LEAN"), and Acadia Center ("Acadia") as full parties in each Three-Year Plan docket, and National Grid in D.P.U. 15-166. Also, on November 5, 2015, the Department granted the petitions for limited participant status of the Energy Consumers Alliance of New England, Inc. d/b/a Massachusetts Energy Consumers

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[2] The Department docketed these matters as follows: (1) D.P.U. 15-160 for Columbia; (2) D.P.U. 15-161 for National Grid (gas); (3) D.P.U. 15-162 for Unitil (gas); (4) D.P.U. 15-163 for Liberty; (5) D.P.U. 15-164 for NSTAR Gas; (6) D.P.U. 15-165 for Berkshire; (7) D.P.U. 15-166 for the Compact; (8) D.P.U. 15-167 for Unitil (electric); (9) D.P.U. 15-168 for National Grid (electric); and (10) D.P.U. 15-169 for NSTAR Electric - WMECo.

Network ("Mass Energy") and the Northeast Energy Efficiency Council ("NEEC") in each Three-Year Plan docket. On November 18, 2015, the Department granted the petitions for limited participant status of the Green Justice Coalition ("GJC") and Brightergy, LLC ("Brightergy") in each Three-Year Plan docket, and the joint petition for limited participant status of the Western Massachusetts Industrial Group and The Energy Consortium ("WMIG" and "TEC," respectively) in D.P.U. 15-168, and D.P.U. 15-169.

Pursuant to notice duly issued, the Department held a joint public hearing on November 30, 2015.[3] The Department held four days of evidentiary hearings on December 8, 2015, through December 11, 2015.[4] On December 29, 2015, the Program Administrators (jointly), the Attorney General, DOER, Acadia, CLF, LEAN, GJC, Brightergy, and Mass Energy filed briefs in each Three-Year Plan docket. On January 6, 2016, the Program Administrators (jointly), DOER, Acadia, Mass Energy, and NEEC filed reply briefs in each Three-Year Plan docket, and WMIG and TEC (jointly) filed a reply brief in D.P.U. 15-168 and D.P.U. 15-169. The evidentiary records for D.P.U. 15-160 through D.P.U. 15-169 contain approximately 1,730 exhibits and 23 responses to record requests.

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

[4] The Department held joint evidentiary hearings on December 8, 9, and 10, 2015, on common issues. The Department also held Program Administrator-specific evidentiary hearings on December 10, 2015, for the Compact, and on December 11, 2015 for National Grid (electric), and NSTAR Electric - WMECo, respectively.

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")[5] 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

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[5] The Council's 15 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; (11) the Massachusetts Non-profit Network; (12) a city or town in the Commonwealth of Massachusetts; (13) the Massachusetts association of realtors; (14) a business employing fewer than ten persons located in the Commonwealth of Massachusetts that performs energy efficiency services; and (15) 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, one from ISO New England Inc., and one from energy efficiency businesses. G.L. c. 25, § 22(a).

magnitude of the resources that are cost-effective or less expensive than supply; (2) the amount of resources that are proposed to be acquired under the Statewide 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 Statewide 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 implement the Statewide 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. G.L. c. 25, § 21(c). 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 Program Administrator-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

Three-Year Plans. G.L. c. 25, § 21(d)(1). The Department must, within 90-days of the filing date, approve, modify, or reject and require the resubmission of the Three-Year Plans. 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 determined that the Total Resource Cost ("TRC") test is appropriate for evaluating the cost-effectiveness of energy efficiency programs.[6] 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

[6] 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.

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).

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 (e.g., Regional Greenhouse Gas Initiative ("RGGI")); (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 is not available from the first four funding sources, the Department may approve the collection of additional funding from ratepayers through the EES after considering the rate and bill impacts on consumers and whether past programs have lowered the cost of electricity. G.L. c. 25, § 19(a); 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 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 also considers rate and bill impacts on consumers. D.P.U. 08-50-A at 56-60; D.P.U. 08-50-B at 18-19.

ii. Funding Allocation

Under the Green Communities Act, the Department must ensure that energy efficiency funds are allocated to all sectors 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. For electric Program Administrators, the EES is collected through the energy efficiency reconciliation factor ("EERF"). Guidelines §§ 2(9), 3.2.1.6. For gas Program Administrators, the EES is 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

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). The approval of energy efficiency and demand resource plans and budgets requires a two-thirds majority vote of the Council. G.L. c. 25, § 22(b).

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. During this process, the Council issued two resolutions regarding its

recommendations concerning various elements of the Statewide Plan and individual Program Administrators' Three-Year Plans: (1) March 31, 2015 Council Resolution, "Resolution Concerning Its Priorities for the Development, Implementation, and Evaluation of the 2016-2018 Three-Year Energy Efficiency Plans"; and (2) July 21, 2015 Council Resolution, "Comments Regarding the April 30th draft 2016-2018 Energy Efficiency Plan" (Statewide Plan, Exh. 1, Apps. E, G).

Following the July 21, 2015 Resolution, the Program Administrators, Council consultants, Massachusetts Executive Office of Energy and Environmental Affairs ("EEA"), DOER, and the Attorney General met to discuss energy efficiency goals, budgets, and priorities. As a result of these discussions, on September 23, 2015 (supplemented October 26, 2015), the Program Administrators, DOER, EEA, and the Attorney General agreed upon a term sheet that sets forth the core goals for the 2016 through 2018 energy efficiency term and served as a guide for the Program Administrators in developing the Statewide Plan (Statewide Plan, Exh. 1, at 30, 219, App. D). On October 26, 2015, the Council, by a vote of 14 to one,[7] approved the Statewide Plan and the individual Program Administrators' Three-Year Plans to the extent that they are consistent with the Statewide Plan (Statewide Plan, Exh. 1, App. I).

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

[7] Mass Energy, representing the Massachusetts Non-profit Network, voted not to approve the Statewide Plan.

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 planning process for setting the initial savings goals contained in the draft Statewide Plan (Statewide Plan, Exh. 1, at 213). The draft Statewide Plan was submitted to the Council in April 2015, and on July 27, 2015 the Council passed a resolution regarding the draft Statewide Plan. Based on the draft Statewide Plan and the July 27, 2015 Resolution, the Program Administrators, EEA, DOER, the Attorney General, and the Council consultants held discussions regarding program savings goals, budgets, and key priorities (Statewide Plan, Exh. 1, at 11, 219). These discussions resulted in the September 23, 2015 term sheet (amended October 26, 2015) that contains statewide aggregate gas and electric savings goals and Program Administrator-specific savings goals for the 2016 through 2018 term (Statewide Plan, Exh. 1, at 219). The term sheet was supported by the Program Administrators, EEA, DOER, and the Attorney General and was used by the Program Administrators as a guide in developing the Statewide Plan (Statewide Plan, Exh. 1, at 219, App. D). On October 26, 2015, the Council approved the Statewide Plan and requested that the Department approve both the Statewide Plan and the individual Program Administrators' Three-Year Plans, to the extent that they are consistent with the Statewide Plan (Statewide Plan, Exh. 1, at 11, 30, App. I). The aggregate statewide savings goals contained in the Statewide Plan for both electric and gas are consistent with the term sheet (Statewide Plan, Exh. 1, at 12).

The Program Administrators state that they developed their individual savings goals considering: (1) the Green Communities Act, which 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 and stakeholders; (4) avoided costs; (5) the Department's directives in prior energy efficiency Orders; (6) customer bill impacts; (7) cost drivers; (8) energy efficiency potential studies; (9) recent EM&V study results; (10) efficiency standards; and (11) the Program Administrators' experience implementing energy efficiency programs over the past three decades (Statewide Plan, Exh. 1, at 220-226, 262).

In the last three-year plans Order, the Department directed those Program Administrators who set a three-year portfolio savings goal greater than 20 percent below the statewide average to conduct an analysis of the remaining cost-effective energy efficiency potential in their service territories. 2013-2015 Three-Year Plans Order, D.P.U. 12-100 through D.P.U. 12-111, at 18-19, 40 (2013). As a result, Berkshire, Liberty, Unitil (gas), Unitil (electric), and the Compact each completed an energy efficiency potential study. Additionally, though not directed to do so by the Department, National Grid (gas), and National Grid (electric) completed an assessment of the remaining achievable electric and gas savings opportunities in the commercial and industrial ("C&I") sector (Statewide Plan, Exh. 1, at 263, App. M).

b. Proposed Savings Goals

The aggregate gas and electric statewide savings goals, as well as each Program Administrator's individual savings goal, expressed as a percentage of sales, are shown in Tables 1 and 2 below.[8]

[8] In addition, the electric Program Administrators' Three-Year Plans include significant oil savings (Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)).

Table 1: Individual Electric Program Administrator Savings Goals (as a percentage of sales)[9]

	2016	2017	2018	Total 2016-2018
National Grid (electric)	2.93%	2.96%	2.94%	2.94%
NSTAR Electric - WMECo	2.94%	2.94%	2.99%	2.96%
Unitil (electric)	1.88%	1.89%	1.90%	1.89%
Compact	2.95%	2.88%	2.95%	2.93%
Aggregate Statewide Goal	2.93%	2.93%	2.95%	2.94%

Table 2: Individual Gas Program Administrator Savings Goals (as a percentage of sales)[10]

	2016	2017	2018	Total 2016-2018
National Grid (gas)	1.28%	1.28%	1.29%	1.28%
NSTAR Gas	1.28%	1.29%	1.30%	1.29%
Columbia	1.29%	1.27%	1.28%	1.28%
Unitil (gas)	0.90%	0.91%	0.93%	0.91%
Berkshire	0.77%	0.72%	0.72%	0.73%
Liberty	0.53%	0.54%	0.54%	0.54%
Aggregate Statewide Goal	1.24%	1.24%	1.25%	1.24%

The Program Administrators state that multiple service territory-specific factors account for the variance in Program Administrator savings goals and the cost of achieving savings, including: (1) the mix of customers and sectors; (2) demographics; (3) population density; (4) economic conditions; (5) the mix of building types; (6) fuel mix and fuel constraints; and (7) for the Compact, its governance structure (Statewide Plan, Exh. 1, at 212, 226, App. O).

[9] Sources: For each Program Administrator, Exh. 4 (Rev.) (December 21, 2015); Statewide Plan, Exh. 1, App. D at 6-10.

[10] Sources: For each Program Administrator, Statewide Plan, Exh. 1, App. D at 12-18.

3. Positions of the Parties

a. Program Administrators

The Program Administrators assert that the Statewide Plan captures all available cost-effective energy efficiency for the 2016 through 2018 period, as required by the Green Communities Act (Program Administrator Brief at 11). They contend that they have taken into account service territory-specific characteristics, economic and environmental benefits, innovations, bill impacts, cost-efficiency, and the need to establish an integrated effort that can be sustained over time (Program Administrator Brief at 11).

In response to issues raised in these proceedings, the Program Administrators argue that GJC, CLF, and Mass Energy have not presented evidence sufficient to support their recommendation that the Department should reject the Program Administrators' proposed savings goals in the C&I sector and adopt their proposed alternative goals (Program Administrator Reply Brief at 2-3). Further, the Program Administrators argue that there is no evidence to determine whether GJC, CLF, and Mass Energy's proposed alternative goals are achievable, sustainable, consider customer bill impacts, or otherwise comply with the Green Communities Act (Program Administrator Reply Brief at 2-3). The Program Administrators, however, contend that the evidence supports a finding that the proposed Three-Year Plans, including savings goals, are designed to capture all available cost–effective energy efficiency resources (Program Administrator Reply Brief at 3, citing Statewide Plan, Exh. 1, passim; Exh. DPU-Comm 7-19).

The Program Administrators argue that they developed their savings goals by taking into account the following: (1) available measures and technologies; (2) efficiency standards;

(3) avoided costs; (4) past performance; (5) evaluation studies; (6) potential studies;[11] (7) cost drivers; and (8) recommendations from the Council, the Council consultants, and stakeholders (Program Administrator Reply Brief at 5, citing Statewide Plan, Exh. 1, at 220, App. M). Further, the Program Administrators state that they relied on both bottom-up (i.e., what savings are reasonable for individual measures) and top-down (i.e., what savings are reasonable and achievable for the portfolio as a whole) planning approaches in determining appropriate savings levels (Program Administrator Reply Brief at 5, citing Statewide Plan, Exh. 1, at 220). The Program Administrators argue that the proposed C&I goals take into consideration territory-specific characteristics, economic and environmental benefits, innovations, bill impacts, cost-efficiency, and the need to establish an integrated effort that can be sustained over time (Program Administrator Reply Brief at 3, citing Statewide Plan, Exh. 1, passim; Exh. DPU-Comm 7-19).

The Program Administrators further argue that achieving C&I savings presents significant challenges (Program Administrator Reply Brief at 3). In particular, the Program Administrators maintain that rising baselines, market saturation, and changing program needs impact the level of energy efficiency opportunities available in the C&I sector (Program Administrator Reply Brief at 3-4). The Program Administrators argue that the Three-Year Plans include innovative approaches to marketing and program delivery (e.g., further market segmentation, expanded upstream incentives, an online customer incentive portal, and enhanced

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[11] The Program Administrators state that the potential studies were performed by independent experts who conducted in-depth and detailed end-use analyses (Program Administrator Reply Brief at 5, citing Statewide Plan, Exh. 1, at 220-221, App. M).

small business program delivery) to address these challenges and capture all available cost-effective energy efficiency opportunities (Program Administrator Reply Brief at 4-5).

In response to Acadia's suggestion that the Program Administrators calculate emissions reductions using the method contained in the forthcoming update to the Massachusetts Clean Energy and Climate Plan for 2020, the Program Administrators contend that EEA had not yet released this document and, therefore, they could not have considered this method when the Three-Year Plans were filed with the Department (Program Administrator Reply Brief at 19).[12] The Program Administrators state that once the progress report is released, the Program Administrators will work with the appropriate state agencies and review the calculation method used in the progress report (Program Administrator Reply Brief at 19).

b. Attorney General

The Attorney General argues that the proposed Three-Year Plans are designed to capture all available cost-effective gas and electric energy efficiency savings (Attorney General Brief at 2). In addition, the Attorney General argues that the Three-Year Plans contribute to the carbon dioxide emissions reduction goals of the Global Warming Solutions Act, G.L. c. 21N (Attorney General Brief at 4, 8-9). The Attorney General supports Department approval of the Three-Year Plans (Attorney General Brief at 17).

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[12] The Department notes that the progress report was issued on January 19, 2016. 2015 Update, Massachusetts Clean Energy and Climate Plan for 2020 (December 31, 2015). Accordingly, the results of the progress report could not have been reflected in the 2016 through 2018 energy efficiency planning cycle.

c. Department of Energy Resources

DOER asserts that the Three-Year Plans identify and capture all available cost-effective energy efficiency resources, while appropriately considering customer bill impacts (DOER Brief at 7). DOER requests that the Department approve the Three-Year Plans (DOER Brief at 18).

d. Acadia Center

Acadia asserts that the Department should approve the proposed Three-Year Plans, including the C&I goals (Acadia Brief at 15-16; Acadia Reply Brief at 3-4). Acadia argues, however, that the Department should ensure that the Program Administrators incorporate new technologies and address barriers in the C&I sector (Acadia Brief at 15-16). Acadia acknowledges that the gas and electric C&I savings goals are below the 2015 goals, but notes that the Program Administrators plan to incorporate additional market segmentation approaches, new technologies, and marketing efforts to address barriers to participation during the 2016 through 2018 term (Acadia Brief at 15-16).

Acadia requests that the Department rely on the greenhouse gas reduction figures in the forthcoming update to the Massachusetts Clean Energy and Climate Plan for 2020, instead of the figures included in the Three-Year Plans of progress towards emissions reductions (Acadia Brief at 16-17). Acadia maintains that the Program Administrators' method of calculating greenhouse gas reductions associated with the Three-Year Plans' proposed energy efficiency savings is different than the method used in the Clean Energy and Climate Plan for 2020 and, therefore, direct comparisons cannot be made (Acadia Brief at 16-17).

e. Conservation Law Foundation

CLF asserts that the proposed C&I savings goals do not capture all available cost-effective energy efficiency opportunities in the C&I sector (CLF Brief at 4-8). CLF maintains that the proposed C&I savings goals are lower than the Council consultants' August 2015 recommendation and lower than the actual lifetime savings achieved by the Program Administrators over the 2013 through 2015 term (CLF Brief at 4-8, citing Exh. CLF-DOER 1-1, Att. 11). Accordingly, CLF argues that the Department should require the Program Administrators to achieve C&I electric sector savings goals consistent with the Council consultants' August 2015 recommendations (CLF Brief at 8-9).

f. Green Justice Coalition

GJC states that discussions by the Program Administrators, the Attorney General, DOER, and EEA regarding C&I savings goals resulted in the Program Administrators proposing C&I savings goals below those recommended by the Council consultants (GJC Brief at 6). Accordingly, GJC argues that the Department should require the Program Administrators to adopt the C&I savings goals contained in the July 21, 2015 Council Resolution (GJC Brief at 6-7).

g. Mass Energy

Mass Energy argues that the Green Communities Act and Department precedent require the Program Administrators to increase energy efficiency and innovation in each successive three-year plan (Mass Energy Brief at 3-4, citing D.P.U. 08-50-A at 1). Mass Energy asserts that the statewide C&I savings goals contained in the Three-Year Plans are below the goals set in previous years (Mass Energy Brief at 5). Further, Mass Energy asserts that the C&I savings

goals are below the Council consultants' recommended goals, which are memorialized in the July 21, 2015 Council Resolution (Mass Energy Brief at 5; Mass Energy Reply Brief at 2). Accordingly, Mass Energy argues that the proposed C&I savings goals do not capture all available cost-effective energy efficiency opportunities in that sector (Mass Energy Brief at 5). Mass Energy asserts that the Department should revise the C&I savings goals to be consistent with the Council consultants' assessments (Mass Energy Brief at 5, 20; Mass Energy Reply Brief at 2).

Mass Energy observes that the Program Administrators have not met their C&I goals in recent years, but states that no evidence indicates this is the result of savings goals having been set too high or energy efficiency market saturation in the C&I sector (Mass Energy Brief at 8). Mass Energy attributes the failure to meet these goals as the result of the Program Administrators not having spent enough of the projected C&I budget from 2013 through 2015 (Mass Energy Brief at 8). Mass Energy argues that opportunities exist to improve C&I programs and establish new initiatives (Mass Energy Brief at 9).

Mass Energy observes that the cost to achieve lifetime savings in the C&I sector decreases each year of the Three-Year Plans (Mass Energy Brief at 9). Therefore, Mass Energy argues that a higher proposed savings goal in the C&I sector would increase the overall cost-effectiveness of the Three-Year Plans (Mass Energy Brief at 9-10; Mass Energy Reply Brief at 2). Accordingly, Mass Energy asserts that the Department should direct the Program Administrators to adopt the Council consultants' recommended goals (Mass Energy Brief at 9-10; Mass Energy Reply Brief at 2).

h. Northeast Energy Efficiency Council

NEEC argues that the Department, when determining whether the Three-Year Plans capture all available cost-effective energy efficiency, should consider customer bill impacts, cost-efficiency, and the desirability of creating a sustainable initiative (NEEC Reply Brief at 2-3). In addition, NEEC maintains that the Department should consider whether the Three-Year Plans: (1) include savings goals higher than previous plans; (2) contain innovations expected to expand energy efficiency opportunities; and (3) have Council support (NEEC Reply Brief at 3-4).

i. Brightergy

Brightergy argues that the C&I programs in the Three-Year Plans should be approved (Brightergy Brief at 3-4). Brightergy maintains that the C&I sector is not saturated and opportunities exist to serve mid-size customers (Brightergy Brief at 3-4). Brightergy contends that the Three-Year Plans, specifically the Small Business core initiative, set out effective steps to achieve the Commonwealth's energy goals (Brightergy Brief at 4).

j. The Energy Consortium and Western Massachusetts Industrial Group

TEC and WMIG argue that the C&I goals in the Three-Year Plans appropriately balance costs and benefits and were approved by the Council (TEC/WMIG Reply Brief at 5). TEC and WMIG further argue that no evidence exists to suggest C&I programs will not achieve greater results if the programs respond to the needs of the C&I community (TEC/WMIG Reply Brief at 5). Therefore, TEC and WMIG argue that the Department should approve the savings goals included in the Three-Year Plans (TEC/WMIG Reply Brief at 5).

4. Analysis and Findings

a. Introduction

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).

b. Savings Goals

The Statewide Plan contains aggregate electric and gas savings goals, as well as individual savings targets for each electric and gas Program Administrator (Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)). These savings goals were developed through a collaborative process between the Program Administrators and the Council that culminated with an agreement on the core elements (i.e., savings goals, program budgets, performance incentives, and key priorities) of the Statewide Plan reflected in the term sheet (Statewide Plan, Exh. 1, at 30, 218-220, App. D). Before submitting the individual Three-Year Plans to the Department, the Council endorsed the savings goals in the Statewide Plan as meeting the Green Communities Act's requirement to acquire all available cost-effective energy efficiency (Statewide Plan, Exh. 1, at 219, App. I). The Council also supported the individual Three-Year Plans and savings goals to the extent they are consistent with the Statewide Plan (Statewide Plan, Exh. 1, Apps. D, I).

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 Three-Year Plans to the overwhelming endorsement by the Council of the savings goals in the Statewide Plan. 2013-2015 Three-Year Plans Order, at 36.

Mass Energy, CLF, and GJC assert that the Three-Year Plans do not set C&I electric savings goals that reflect all available cost-effective energy efficiency resources and argue that the Department should instead require the Program Administrators to adopt the higher electric savings goals developed by the Council consultants (CLF Brief at 5, citing Exh. CLF-DOER 1-1, Att. 11; Mass Energy Brief at 20; GJC Brief at 7).[13] As the Department has stated, there is no simple method to calculate whether the mandate of all available cost-effective energy efficiency has been met. 2013-2015 Three-Year Plans Order, at 36. As discussed above, the savings goals included in the Three-Year Plans for both the residential and C&I sectors are the result of extensive negotiations and discussions between the Program Administrators, the Attorney General, DOER, the Council, EEA, and stakeholders (Statewide Plan, Exh. 1, at 218-227, Apps. M, O). The savings goals developed through this process appropriately take into consideration customer bill impacts, program sustainability, and territory-specific savings drivers (as discussed further below) (Statewide Plan, Exh. 1, at 218-227, Apps. M, O). Accordingly, the Department finds that the aggregate and individual gas and electric savings goals are reasonable and consistent with the achievement of all available cost-effective energy efficiency.

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[13] These savings goals are contained in an August 14, 2015 memorandum to the Council from its consultants titled "2016-2018 Planning Assumptions for Key Drivers Update DRAFT" (Exh. CLF-DOER 1-1, Att. 11).

By contrast, the electric savings goals that Mass Energy, CLF, and GJC ask us to adopt were not supported by a witness and were not subject to cross-examination in these proceedings. Based on the evidentiary record before us, we have no basis to conclude that these savings goals are reasonable and consistent with the achievement of all available cost-effective energy efficiency. Therefore, we decline to adopt Mass Energy, CLF, and GJC's recommendations on this issue.

c. Potential Studies

The Department directed Program Administrators who set a three-year portfolio savings goal greater than 20 percent below the statewide average to conduct an analysis of the remaining cost-effective energy efficiency potential in their service territories. 2013-2015 Three-Year Plans Order, at 18-19, 40. In compliance with this directive, Berkshire, Liberty, Unitil (gas), Unitil (electric), and the Compact each completed an energy efficiency potential study and, although not directed by the Department, National Grid (gas), and National Grid (electric) also completed an assessment of the remaining achievable electric and gas savings opportunities in their C&I sectors (Statewide Plan, Exh. 1, at 263, App. M).

The results of potential studies can help the Program Administrators understand the remaining technical, economic, and achievable energy efficiency opportunities within their service territories, which play a key role in helping Program Administrators set savings goals (Statewide Plan, Exh. 1, at 220-221; Exh. DPU-NG-Gas 2-3). Further, potential studies provide Program Administrators with insights specific to their customer base, allowing for further tailoring of program offerings and customer engagement (Statewide Plan, Exh. 1, at 263-267, App. M; Exhs. DPU-Berkshire 2-7; DPU-FGE-Gas 1-1; DPU-LU 1-2; Tr. 1, at 76). In addition,

the results from each Program Administrator's potential study may provide important insights for other Program Administrators (Statewide Plan, Exh. 1, at 221; Exh. DPU-Comm 7-19). While potential studies are one component of the planning process, they do play an important role in program design and provide an important objective measure of savings potential (Statewide Plan, Exh. 1, at 220-221; Exh. DPU-NG-Gas 2-3). Accordingly, the Department directs each Program Administrator to conduct a service territory-specific energy efficiency potential study every three years. We expect that the potential studies will provide valuable input to the energy efficiency planning process and savings goals development. The potential studies should be completed before the Program Administrators submit their draft statewide plan to the Council.

d. Program Enhancements

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 (Statewide Plan, Exh. 1, at 34). 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. 2013-2015 Three-Year Plans Order, at 37; Electric Three-Year Plans Order, D.P.U. 09-116 through D.P.U. 09-120, at 85 (2010), citing G.L. c. 25, § 19(a), 21(a), § 21(b), 22(b); Gas Three-Year Plans Order, D.P.U. 09-121 through D.P.U. 09-128, at 71-72 (2010), citing G.L. c. 25, § 19(a), 21(a), § 21(b), 22(b). Sustained growth of existing programs alone, however, will not satisfy the requirement to acquire all available cost-effective energy efficiency. 2013-2015 Three-Year Plans Order, at 37. The Program Administrators must continue to 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. 2013-2015 Three-Year Plans Order, at 37.

The Program Administrators intend to implement enhancements to each core initiative aimed at new technologies and overcoming barriers to customer participation (Statewide Plan, Exh. 1, at 53-54, 62-63, 82, 92, 98, 125-130). The Massachusetts technical assessment committee established and publishes threshold technical requirements that must be met to qualify products or processes as eligible for program incentives (Statewide Plan, Exh. 1, at 36). 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 (Statewide Plan, Exh. 1, at 36; Exhs. DPU-Comm 2-36; DPU-Comm 5-14). Further, the Program Administrators have proposed new approaches to explore demand savings, integration of renewable resources, and other niche opportunities (Statewide Plan, Exh. 1, at 199-204). Moreover, the Program Administrators are participating in the demand savings group to evaluate potential demand response strategies (Statewide Plan, Exh. 1, at 199-200). Finally, the Compact and National Grid (electric) have proposed demand response demonstration offerings to evaluate the opportunities, benefits, and cost-effectiveness of demand response in their service areas (See Section IX.G, below) (Statewide Plan, Exh. 1, App. L, Part 1, at 6-10, Part 3, at 3-7).

The Three-Year Plans include several enhancements designed to address residential sector barriers, including: (1) a renter specific initiative; (2) a moderate-income incentive; (3) an enhanced multi-family program; and (4) home automation field trials (Statewide Plan, Exh. 1, at 43-46; Exh. DPU-Comm 2-9; Tr. 1, at 61-63). The Three-Year Plans also include several

enhancements designed to address C&I sector barriers, including: (1) an online incentive application portal; (2) an assessment of the Small Business core initiative; (3) expansion of upstream offerings; and (4) segment-specific marketing and offerings (Statewide Plan, Exh. 1, at 116-117; Exhs. DPU-Comm 2-7; DPU-Comm 5-13; DPU-Gas 2-5; Tr. 1, at 63-85, 93-109).

Based on the above, the Department finds that the Three-Year Plans 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.

e. Conclusion

For the reasons discussed above, the Department finds that the gas and electric savings goals are reasonable and consistent with the achievement of all available cost-effective energy efficiency. Further, the Program Administrators have incorporated new technologies and included enhancements to the residential and C&I programs that are designed to address barriers to participation and expand energy efficiency. Accordingly, the Department finds that the Program Administrators have taken appropriate steps to acquire all available cost-effective energy efficiency in their Three-Year Plans.

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 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. 2013-2015 Three-Year Plans Order, at 48; Electric Three-Year Plans Order, at 129; Gas Three-Year Plans Order, at 120; Guidelines § 3.5.2.

2. Program Administrators' Proposal

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 (Statewide Plan, Exh. 1, at 244-246). The Program Administrators propose to focus their EM&V activities on three research areas: (1) residential; (2) C&I; and (3) special and cross-cutting[14] (Statewide Plan, Exh. 1, at 244-246). 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 (Statewide Plan, Exh. 1, at 247).[15] The Program Administrators propose to allocate $71.5 million (or 2.8 percent of the 2016 through 2018 budget) for statewide EM&V activities during the upcoming three-year term (Statewide Plan, Exh. 1, at 247, App. C (Rev.) (December 21, 2015)).

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 (Statewide Plan,

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14 This research area reflects the fact that not all studies will fall into the residential or C&I market categories and that some studies may be cross-sector in nature (Statewide Plan, Exh. 1, at 246).

15 These study types are unchanged from those included in the 2010 through 2012 EM&V framework and continued in the 2013 through 2015 EM&V framework. See, e.g., Electric Three-Year Plans Order, at 125; 2013-2015 Three-Year Plans Order, at 50.

Exh. 1, at 245). The Program Administrators state that the evaluation management 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 (Statewide Plan, Exh. 1, at 245). The Program Administrators submitted a strategic evaluation plan, developed by the Program Administrators and the evaluation management committee, to serve as a long-term planning document, which will guide evaluation activities in the 2016 through 2018 term (Statewide Plan, Exh. 1, at 247, App. S at 4).

3. Positions of the Parties

The Program Administrators assert that their proposed EM&V framework satisfies both the Guidelines and Department precedent (Program Administrator Brief at 47). The Program Administrators argue that the proposed framework builds upon lessons learned over the last three years (Program Administrator Brief at 47-48). The Program Administrators contend that under the proposed EM&V framework, the Program Administrators will use competitive procurement to engage independent third-party evaluation contractors and work with the Council consultants to ensure the appropriateness of the contract budget (Program Administrator Brief at 47-48). In addition, the Program Administrators assert that they and the Council consultants will work collaboratively through the evaluation management committee and its various working groups in order to continuously improve the EM&V process (Program Administrator Brief at 48). Finally, the Program Administrators contend that their proposed budget of $71.5 million for EM&V is consistent with the term sheet and is reasonable based on several factors, including historic evaluation costs and expected higher costs for certain evaluation activities (Program Administrator Brief at 48). No other party addressed this issue on brief.

4. Analysis and Findings

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; 2013-2015 Three-Year Plans Order, at 58. 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). G.L. c. 25, §§ 19(a)-(c), 21(b)(3); Guidelines § 3.4.3.1.

The Program Administrators' proposed EM&V framework includes the following elements: (1) a budget of $71.5 million to fund statewide EM&V activities during the upcoming three-year term; (2) three EM&V research areas (i.e., residential, C&I, and special and cross-cutting issues); (3) five types of EM&V studies (i.e., impact evaluation, market effects evaluation, process evaluation, market characterization or assessment, and evaluation of pilots); (4) oversight of EM&V activities by the evaluation management committee; and (5) a strategic evaluation plan to identify evaluation priorities for the upcoming term (Statewide Plan, Exh. 1, at 244-247, App. C (Rev.) (December 21, 2015), App. S). The Program Administrators have demonstrated that this framework is appropriate in terms of funding, scope, oversight and planning (see Statewide Plan, Exh. 1, at 244-247, App. C (Rev.) (December 21, 2015), App. S). 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.

V. PROGRAM ADMINISTRATOR IMPLEMENTATION COSTS

A. Introduction

A Program Administrator's budget is comprised of energy efficiency program implementation costs, and performance incentives 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 devote at least ten and 20 percent of their energy efficiency expenditures, respectively, to 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 appliances 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 costs for plan years 2016 through 2018 (Statewide Plan, Exh. 1, at 213-216). These costs are summarized in Tables 5 and 6, Statewide Program Budgets by Sector, in Section XII. On an individual Program Administrator level,

Tables 7 and 8, Program Administrator Budgets by Sector, in Section XII, identify each Program Administrator's total proposed expenditures for the period 2016 through 2018.[16]

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 (Statewide Plan, Exh. 1, at 231-232). In addition, PP&A costs include any regulatory expenses associated with energy efficiency activities, database/data repository development and maintenance, sponsorships and subscriptions, 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 (Statewide Plan, Exh. 1, at 231).

The marketing and advertising category includes costs for the development and implementation of marketing strategies and costs to advertise the existence and availability of

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16 On December 21, 2015, the Program Administrators submitted supplemental filings that included revised D.P.U. 08-50 Tables to correct errors contained in the original tables filed on October 30, 2015. For certain Program Administrators, the supplemental filings included revised program expenditures. See, e.g., D.P.U. 15-160, Supplemental Filing (December 21, 2015). On a statewide basis, the total revised program expenditures are approximately 0.07 percent higher than the original total.

energy efficiency programs or technologies, and to induce customers or trade allies to participate in energy efficiency programs (Statewide Plan, Exh. 1, at 231). Some Program Administrators propose to reallocate certain sponsorship and subscription costs as marketing and advertising costs where the activity is sponsored with the purpose of marketing the programs (see, e.g., D.P.U. 15-160, Supplemental Filing, Cover Letter at 2 (December 21, 2015)).

The program participant incentive category includes funds that a Program Administrator pays to customers and trade allies as rebates or in other forms (Statewide Plan, Exh. 1, at 231). Participant incentives include costs that directly benefit customers, including permit fees, pre-weatherization expenses, repairs, and interest buy-downs (Statewide Plan, Exh. 1, at 231).

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; (4) manufacturers to make energy efficiency products; and (5) customers to use vendor services and suppliers that demonstrate the benefits of energy efficiency (Statewide Plan, Exh. 1, at 231-232). The sales, technical assistance, and training category also includes costs not directly tied to savings, including residential assessments, technical assistance studies, contractor fees, and performance bonuses (Statewide Plan, Exh. 1, at 232).

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 (Statewide Plan, Exh. 1, at 232). The Program Administrators also include internal

salaries for employee functions related to evaluating the programs (Statewide Plan, Exh. 1, at 232).

3. Minimization of Administrative Costs

The electric Program Administrators propose to spend an average of 5.3 percent of their total energy efficiency expenditures on PP&A costs over the three-year term (Statewide Plan, Exh. 1, App. C, Table IV.C.1 (Electric) (Rev.) (December 21, 2015)). The gas Program Administrators propose to spend an average of 4.8 percent of their total energy efficiency expenditures on PP&A over the three-year term (Statewide Plan, Exh. 1, App. C Table IV.C.1 (Gas) (Rev.) (December 21, 2015)). Tables 9 and 10: Program Administrator Program, Planning & Administration Costs by Sector, in Section XII, below, summarize each Program Administrator's PP&A costs as a percentage of their total program expenditures for the period 2016 through 2018.

4. Competitive Procurement

The Program Administrators state that they use competitive procurement processes 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 (Statewide Plan, Exh. 1, at 274). The Program Administrators state that they intend to continue to issue requests for proposals to engage appropriate third-party vendors to provide energy efficiency services, and work collaboratively to ensure that energy efficiency services have been procured in a manner that minimizes costs to ratepayers, while maximizing the associated benefits of those investments (Statewide Plan, Exh. 1, at 274). The Program Administrators state they will continue to seek to expand the pool of qualified program vendors, promote the entry of

new market actors into contractor and subcontractor roles, and ensure transparency of the contractor bidding process and selection criteria used to evaluate proposals (Statewide Plan, Exh. 1, at 274).

5. Low-Income Program Budgets

Each Program Administrator included in its Three-Year Plan filing a table showing the percentage of its energy efficiency program budget that it projects to spend on low-income programs (see, e.g., Exh. CMA-4, Table V.B (Rev.) (December 21, 2015)). The electric Program Administrators propose to spend an average of eleven percent of their total energy efficiency program budget on low-income residential demand-side management and education programs over the three-year term (Statewide Plan, Exh. 1, App. C Table IV.C, Electric (Rev.) (December 21, 2015)). The gas Program Administrators propose to spend an average of 20 percent of their total energy efficiency program budget on low-income residential demand-side management and education programs over the three-year term (Statewide Plan, Exh. 1, App. C Table IV.C, Gas (Rev.) (December 21, 2015)). Tables 11 and 12: Program Administrator Budget Allocation to Low-Income Sector, in Section XII, below, summarize each Program Administrator's low-income program budget as a percentage of its total program budget for the period 2016 through 2018.

C. Positions of the Parties

1. Program Administrators

a. Program Implementation Cost Categories

The Program Administrators argue that they have developed consistent definitions and methods of assigning costs across program implementation cost categories, which are consistent

with the Department's prior directives (Program Administrator Brief at 31, citing 2013-2015 Three-Year Plans Order, at 74; Statewide Plan, Exh. 1, at 230-231, App. X at 70-74; Exh. DPU-Comm 7-11).

b. Minimization of Administrative Costs

The Program Administrators argue that the 2016 through 2018 Three-Year Plans are designed to minimize administrative costs to the fullest extent practicable (Program Administrator Brief at 34-35, citing Statewide Plan, Exh. 1, at 272-274). The Program Administrators assert that administrative costs have been minimized primarily through the Program Administrators' use of a statewide collaborative process to coordinate: (1) program planning, (2) the adoption of consistent programs and processes; (3) program design; (4) EM&V studies; (5) statewide marketing; (6) regulatory proceedings; and (7) the development and sharing of best practices (Program Administrator Brief at 34, citing Statewide Plan, Exh. 1, at 273-274). The Program Administrators contend that coordinating these activities results in economies of scale that reduce the costs for each Program Administrator (Program Administrator Brief at 34, citing Statewide Plan, Exh. 1, at 273-274).

The Program Administrators argue that they are fully committed to pursuing both internal and external opportunities to streamline the administration of their energy efficiency programs (Program Administrator Brief at 34, citing Statewide Plan, Exh. 1, at 273-274). The Program Administrators contend, however, that an exact quantification of the minimization of administrative costs is not possible, given the continuous evolution of the plans (Program Administrator Brief at 34, citing Statewide Plan, Exh. 1, at 274). Further, the Program Administrators contend that a direct quantitative comparison between individual Program

Administrators or program years would not be useful because program needs and opportunities are always changing (Program Administrator Brief at 34, citing Statewide Plan, Exh. 1, at 274).

The Program Administrators argue that they seek to minimize costs at all available opportunities, while maintaining program quality and oversight (Program Administrator Brief at 34, citing Statewide Plan, Exh. 1, at 274). The Program Administrators contend that administrative costs, as a proportion of overall Program Administrator spending, are projected to remain proportional to 2013 through 2015 levels (Program Administrator Brief at 35, citing Statewide Plan, Exh. 1, App. C, Table IV.C.2.2 (Rev.) (December 21, 2015)).

c. Low-Income Program Budgets

The Program Administrators argue that they plan to allocate funding to low-income programs in compliance with the Green Communities Act (Program Administrator Brief at 35). The electric and gas Program Administrators state that they propose to spend approximately eleven percent and 20 percent, respectively, of their total budgets on the low-income sector for 2016 through 2018 (Program Administrator Brief at 35-36, citing Statewide Plan, Exh. 1, at 272, App. C, Table V.B.1 (Rev.) (December 21, 2015)). The Program Administrators assert that while some Program Administrators may project to spend less than the ten or 20 percent minimum in a particular program year, each Program Administrator proposes a low-income program budget for its total service territory over the three-year term that meets or exceeds the statutory minimums (Program Administrator Brief at 36, citing, e.g., Exhs. NG-Electric-4 (Rev.) (December 21, 2015); DPU-Berkshire 1-1; DPU-Eversource-Electric 2-4).

d. Competitive Procurement

The Program Administrators argue that they plan to use competitive procurement processes to the fullest extent practicable throughout the implementation of the Three-Year Plans (Program Administrator Brief at 36). To meet this objective, the Program Administrators state that they will: (1) issue requests for proposals to engage third-party vendors to provide energy efficiency services, (2) consider the input 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 customers, while maximizing the associated benefits of that investment (Program Administrator Brief at 36-37, citing Statewide Plan, Exh. 1, at 274).

2. Attorney General

The Attorney General argues that, while the 2016 through 2018 Three-Year Plans program budgets and associated costs to achieve energy savings are higher than the level approved by the Department in the last three-year plan, the costs are proportional to the increase in overall electric and gas savings (Attorney General Brief at 9).

3. Acadia Center

Acadia argues that the program budgets, including program implementation costs, represent an unprecedented level of energy efficiency investment, commensurate with the need to support and sustain the aggressive savings goals in the Three-Year Plans (Acadia Brief at 12). Accordingly, Acadia urges the Department to approve each Program Administrator's budget as necessary to achieve the mandates of the Green Communities Act (Acadia Brief at 12).

D. Analysis and Findings

1. Program Implementation Cost Categories

In 2013-2015 Three-Year Plans Order, at 74, the Department directed the Program Administrators to develop consistent definitions and methods of assigning costs across all five program implementation cost categories and to report their progress towards meeting this requirement on or before July 31, 2014.[17] The Program Administrators filed this report with the Department on July 31, 2014. See, e.g., DPU 12-110, Consistent Cost Categories Report (July 31, 2014).

The Department recognizes the progress that the Program Administrators have made towards consistent cost categorization, including the establishment of consistent budget cost category definitions, methods for allocating salaries across cost categories, and vendor cost categories (Statewide Plan, Exh. 1, App. X at 74). Such efforts have improved the Department's ability to assess the reasonableness of the Program Administrators' implementation costs.

Despite this progress in developing consistent cost categories and definitions, the Program Administrators have recently changed the categorization of certain administrative cost

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[17] The Program Administrators were required to: (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. 2013-2015 Three-Year Plans Order, at 74.

items and anticipate other cost category changes in the future (see, e.g., Statewide Plan, Exh. 1, App. X at 74). Such shifting will make a comparison of a Program Administrator's past and future PP&A spending difficult. In addition, shifting costs in and out of the PP&A category will make it difficult for the Department to assess changes in PP&A spending over time.

In order to improve consistency and transparency in cost reporting and to facilitate a review of the Program Administrators' planned and actual spending over time, the Department directs the Program Administrators to: (1) preserve the current definition of cost categories, including all components, component descriptions, and examples of associated costs that were contained in the Three-Year Plans as filed on October 30, 2015;[18] and (2) assign the same expenses to these cost categories and components. In addition, the Department directs the Program Administrators to implement certain changes to their proposed classification of sponsorship costs, as discussed below. To the extent that a Program Administrator determines that a reclassification of existing costs is necessary, the Program Administrator shall provide the Department with notice of the proposed reclassification (including all reasons why such reclassification is necessary). Finally, to the extent that any new costs arise that are not assigned to one of the existing cost categories, the Program Administrators shall notify the Department of the proposed category placement of such costs. Notification of the proposed reassignment or classification of expenses should be provided to the Department as part of the plan-year report filings. Further, a summary of any changes to expense categorization and the assignment of new

[18] The Program Administrators have broken down each budget category into its components, provided a description of each component, and provided examples of the associated costs for each component (see Statewide Plan, Exh. 1, App. X at 70-73).

costs to existing cost categories shall be included in all future three-year plan and term-report filings.

2. Minimization of Administrative Costs

As noted above, the Department is charged with ensuring that the 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 Plan a description and supporting documentation of the steps taken to minimize administrative costs (Statewide Plan, Exh. 1, at 11, 15, 273-274; see, e.g., Exh. NG-Electric-4 (Rev.) (December 21, 2015)). 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 remain relatively flat as a percentage of its total budget over the 2016 through 2018 term. In addition, total PP&A costs, as a percentage of the statewide budget, remain proportional to the costs approved by the Department for the prior three-year plan term. See 2013-2015 Three-Year Plans Order, at 75, 172-173.

The Program Administrators have shown that statewide collaboration in program planning, implementation, and evaluation contributes to economies of scale that reduce costs for each Program Administrator. The Department expects that this collaboration will continue throughout the 2016 through 2018 Three-Year Plan term.

Based on a review of planned program costs, the Department finds that the Program Administrators have appropriately balanced the requirement to minimize PP&A costs with the need to maximize program quality and oversight. Accordingly, the Department finds that each

Program Administrator's Three-Year Plan is designed to minimize administrative costs to the fullest extent practicable.

Despite our finding above that the Program Administrators have minimized administrative costs to the fullest extent practicable, the Department notes that program budgets have substantially increased from the prior term, including increases in planned PP&A costs. While the Department has determined that the Program Administrators have minimized administrative costs to the fullest extent practicable in the instant Three-Year Plans, there may be additional opportunities for the Program Administrators to minimize administrative costs going forward. To this end, the Department directs the Program Administrators to study best practices for minimizing administrative costs. A report detailing the findings of this study should be completed and filed with the Department as part of the Program Administrators' next Three-Year Plans filings. The report shall: (1) identify best practices, both in Massachusetts and nationwide, for tracking and assessing administrative costs; (2) identify potential benchmarks, metrics, and/or indicators for measuring administrative costs; and (3) provide specific recommendations, as appropriate, for reducing administrative costs. Finally, in order to facilitate future review of administrative costs, the Department directs the Program Administrators to provide a breakdown of PP&A costs in dollars by component in all future term report and three-year plan filings.[19]

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[19] These components include: (1) developing program plans; (2) market transformation plans; (3) R&D; (4) day-to-day program administration, including labor, benefits, expenses, materials, supplies, and overhead costs; (5) regulatory costs associated with energy efficiency activities; (6) database/data repository development and maintenance; and (7) sponsorships and subscriptions (see Statewide Plan, Exh. 1, App. X at 70-71).

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 the 2016 through 2018 Three-Year Plans, each Program Administrator has competitively procured a high percentage of its program activities (see, e.g., Exh. CMA-4, Table V.D (Rev.) (December 21, 2015)). 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 solicitations and collaboration in the procurement of services) (Statewide Plan, Exh. 1, at 274). Therefore, the Department finds that the Program Administrators' 2016 through 2018 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 budgets on the low-income 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 meets the statutory minimum over the three-year planning period.[20] Accordingly, the Department finds that each Program Administrator has met the low-income budget requirements of G.L. c. 25, § 19(c).

[20] NSTAR Electric and WMECo propose to implement an aggregated budget, including a low-income budget, for 2016 through 2018 (Exhs. Eversource Energy-4, Table IV.C.2.2 (Rev.) (December 21, 2015), DPU-Eversource Electric 2-4). The Department addresses the NSTAR Electric-WMECo aggregated budget proposal in Section IX.E, below.

E. Sponsorships

1. Program Administrators' Proposal

The Program Administrators' budgets include proposed funding for organizational and event sponsorships and subscriptions ("sponsorships") (Statewide Plan, Exh. 1, at 198). Proposed funding for sponsorships is included in the residential, low-income, and C&I sectors (Statewide Plan, Exh. 1, at 198). Sponsorship costs generally fall into six broad categories: (1) energy efficiency industry forums; (2) trade associations; (3) national industry associations; (4) groups that target specific industry sectors; (5) universities and organizations that develop new technologies; and (6) residential focused groups to educate and engage with the community (see, e.g., D.P.U. 15-169, Exh. DPU-Comm 3-2; Tr. 2, at 200-201). Although the Program Administrators state that the sponsored organizations do not lobby on their behalf, a number of the sponsored organizations are registered lobbyists (Exh. DPU-Comm 3-1 (Att); Tr. 2, at 235).

For the 2016 through 2018 term, the Program Administrators propose to spend approximately $6.7 million on sponsorships.[21] The Program Administrators propose to categorize all sponsorships as PP&A (Tr. 2, at 252).

[21] For the 2016 through 2018 term, each Program Administrator proposes to spend the following amounts on sponsorships: Compact - $265,424 (Exh. Compact-4 (Rev.) (December21, 2015)); National Grid (electric) - $2,414,037 (Exh. NG-Electric-4 (Rev.) (December 21, 2015)); NSTAR Electric - WMECo - $2,702,068 (Exh. Eversource-Electric-4 (Rev.) (December 21, 2015)); Unitil (electric) - $30,000 (Exh. FGE-4 (Rev.) (December 21, 2015)); Columbia - $83,614 (Exh. CMA-4 (Rev.) (December 21, 2015)); Berkshire - $30,000 (Exh. Berkshire-4 (Rev.) (December 21, 2015)); Liberty - $3,000 (Exh. LU-4 (Rev.) (December 21, 2015)); National Grid (gas) - $728,492 (Exh. NG-Gas-4 (Rev.) (December 21, 2015)); Unitil (gas) - $21,320 (Exh. FGE-4 (Rev.) (December 21, 2015)); and NSTAR Gas - $410,414 (Exh. Eversource-Gas-4 (Rev.) (December 21, 2015)).

While each Program Administrator's approach is different, the Program Administrators generally assess sponsorship expenses on a case-by-case basis by considering: (1) the ability of the sponsorship to enhance energy efficiency program delivery; (2) staff training needs; and (3) whether the benefits of the sponsorship justify the costs (Tr. 2, at 199-202). None of the Program Administrators have a written policy in place to document the decision making process regarding which organizations to sponsor, and the final decision generally rests with either the energy efficiency program manager or the marketing manager (Tr. 2, at 200-206).

The Program Administrators also sponsor local and national industry events. The Program Administrators state that such sponsorship allows them to participate in the development of event agendas, speak at events, access attendee lists for marketing purposes, and display their logo at events (Exh. DPU-Comm 3-4 (Att), Tr. 2, at 257-258, 263). The Program Administrators state that event sponsorship funds are generally used to fund a specific event, but they cannot definitively state whether the sponsored organization also uses the funds for other purposes (Tr. 2, at 264).

2. Position of the Parties

The Program Administrators maintain that the proposed sponsorship budgets include costs associated with: (1) membership fees to key industry associations; (2) sponsoring industry events where Program Administrators and other industry experts share best practices; and (3) sponsoring other events that support training, education, evaluation, and marketing of energy efficiency programs (Program Administrator Brief at 37). The Program Administrators argue that they use sponsorships to gain insight into best practices and new innovations, to participate in trainings, to market to specific customer segments, and to influence the energy efficiency

industry (Program Administrator Brief at 38, citing Tr. 2, at 199-200). The Program Administrators contend that without Program Administrator funds, the ability of these organizations to develop standards, and provide education and information sharing opportunities will likely be diminished (Program Administrator Brief at 37, citing Tr. 2, at 259-260).

In determining whether to invest in a sponsorship, the Program Administrators assert that they review whether such involvement provides innovative services to customers, supports training and expertise, and/or provides marketing opportunities for the energy efficiency programs (Program Administrator Brief at 37-38, citing Tr. 2, at 201-202, 204). The Program Administrators recognize that some sponsored organizations, particularly trade organizations, may be registered lobbyists (Program Administrator Brief at 38). The Program Administrators argue, however, that they do not engage these organizations to conduct lobbying on their behalf (Program Administrator Brief at 38).

Finally, the Program Administrators argue that the amount of money allocated to sponsorships is relatively small and these funds provide significant benefits (Program Administrators Brief at 38, citing Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)). Thus, the Program Administrators contend that sponsorship funds are an important tool to help achieve savings goals and acquire all cost-effective energy efficiency (Program Administrator Brief at 37-38). No other party addressed this issue on brief.

3. Analysis and Findings

a. Introduction

The Program Administrators request that the Department approve a proposed sponsorship budget for the 2016 through 2018 term totaling $6,688,369 (Statewide Plan, Exh. 1, App. C

(Rev.) (December 21, 2015)). The Program Administrators have the burden to show that energy efficiency-related sponsorship expenses, like any other expenses that they seek to recover from ratepayers, are reasonable and prudently incurred. Fitchburg Gas and Electric Light Company, D.P.U. 11-01/11-02, at 323 (2011); Boston Gas Company/Essex Gas Company/Colonial Gas Company d/b/a National Grid, D.P.U. 10-55, at 434, 440-442 (2010); Boston Gas Company, D.T.E. 03-40, at 140-141 (2003); Oxford Water Company, D.P.U. 1699, at 13 (1984). As part of this showing, the Program Administrators must demonstrate that such sponsorship expenses have a clear and direct energy efficiency-related benefit to Massachusetts ratepayers. See, e.g., New England Telephone and Telegraph Company, D.P.U. 86-33-G at 101 (1989); Boston Edison Company, D.P.U. 1720, at 70-78 (1984).

In the instant proceeding, the Department reviews the reasonableness of the Program Administrators' planned spending; a review of actual spending for cost recovery purposes will not occur until the 2016 through 2018 Three-Year Term Reports. Based on our review of planned spending, the Department has concerns with the level of support provided by the Program Administrators regarding the reasonableness of their proposed sponsorship budgets. The Department addresses these concerns below in order to provide guidance to the Program Administrators both when considering whether to incur such sponsorship expenses and when seeking to recover such expenses from ratepayers in the term report proceedings. Although we will not reduce the Program Administrators' proposed sponsorship budgets at this time, the Department fully expects that the Program Administrators will demonstrate that any actual expenditures are reasonable, prudently incurred, and otherwise consistent with Department precedent.

b. Sponsorship Cost Categorization

The broad category of sponsorship costs, described above, includes: (1) energy efficiency industry forums; (2) trade associations; (3) national industry associations; (4) groups that target industry sectors; (5) universities and organization that develop new technologies; and (6) residential-focused groups that educate and engage with the community (see, e.g., D.P.U. 15-169, Exh. DPU-Comm 3-2; Tr. 2, at 200-201). Appropriate cost categorization is necessary in order to provide greater transparency into energy efficiency program costs and ensure that such costs are easily reviewable. While some sponsorship costs may fit under the PP&A cost category (e.g., membership dues), many of these expenses fit more appropriately under cost categories such as: marketing and advertising; sales, technical assistance, and training; or evaluation and market research. Therefore, the Department directs the Program Administrators to, consistent with the Consistent Cost Categories Report and the Department's directives above, appropriately identify the type of sponsorship and report it under the proper cost category. Finally, all Program Administrators shall categorize these costs within the Sponsorships and Subscriptions line item in the Residential, Low-Income, and C&I Hard-to-Measure core initiatives (see, e.g., RR-National Grid Gas-1).

c. General Sponsorships and Subscription Expenses

In response to discovery, each Program Administrator provided a list of organizations it sponsored during the 2013 through 2015 term and those that the Program Administrator intends to sponsor during the 2016 through 2018 term (Exhs. DPU-Comm 3-1; DPU-Comm 3-2). In addition, each Program Administrator provided a list of all conferences and industry events sponsored during the 2013 through 2015 term and that each Program Administrator intends to

sponsor during the 2016 through 2018 term (Exhs. DPU-Comm 3-4; DPU-Comm 3-5). In each category, the Program Administrators were required, amongst other things, to identify the purpose of the proposed sponsorship funding and to describe the direct benefit to Massachusetts ratepayers (Exhs. DPU-Comm 3-1; DPU-Comm 3-2; DPU-Comm 3-3, DPU-Comm 3-4; DPU-Comm 3-5; DPU-Comm 3-6).

The Department finds that the explanations and support provided for the majority of the proposed sponsorship expenses are insufficient for the Department to determine whether the proposed spending is reasonable and will provide a direct benefit to Massachusetts ratepayers (see Exhs. DPU-Comm 3-1; DPU-Comm 3-2; DPU-Comm 3-3, DPU-Comm 3-4; DPU-Comm 3-5; DPU-Comm 3-6). While we recognize that some of the identified sponsorships could likely provide benefit to Massachusetts ratepayers, the level of information provided by the Program Administrators does not allow the Department to make this assessment. For example, during the 2013 through 2015 term, some Program Administrators sponsored an ESource offering (see, e.g., D.P.U. 15-169, Exhs. DPU-Comm 3-1 (Att); DPU-Comm 3-3 (Att)).[22] This organization plays a role in validating new efficiency technologies (Tr. 2, at 216). It is possible that the use of ESource data by the Program Administrators to leverage best practices could be beneficial to Massachusetts ratepayers. The Program Administrators, however, provided only a cursory explanation of the sponsorship expense and the likely benefits (see, e.g., Exh. DPU-Comm 3-3 (Att)). Further, certain Program Administrators have sponsored and intend to sponsor events where, without additional information, the direct energy

[22] ESource is a membership-supported consulting and market research firm that provides utilities with information on how consumers use energy and how utilities can better serve their customers. (ESource: https://www.esource.com).

efficiency-related benefit to Massachusetts ratepayers is difficult to ascertain (e.g., golf tournaments and galas) (see, e.g., Exhs. DPU-Comm 3-1 (Att); DPU-Comm 3-3 (Att); DPU-Comm 3-6 (Att)).[23]

When seeking to recover costs from ratepayers in energy efficiency term reports, the Program Administrators must be prepared to provide a full and complete explanation and analysis (with supporting documentation as necessary) of why each individual sponsorship expense was reasonable, prudently incurred, and how it provided a direct benefit to Massachusetts ratepayers. Failure to do so will likely result in the disallowance of such costs.

The Program Administrators suggest that because total sponsorship expenses amount to such a small portion of the total energy efficiency budget and these costs are incurred in support of the Three-Year Plans, they do not merit a high level of scrutiny (Program Administrator Brief at 38; see, e.g., Tr. 2, at 229-230). This is not the case. Although the Department has acknowledged that certain energy efficiency activities, such as R&D or customer education regarding energy efficiency opportunities, may be necessary to support the implementation of cost-effective energy efficiency programs, such costs are not exempt from the Department's well-established standards of review for cost recovery. See D.P.U. 08-50-A at 25. In addition, in order to satisfy the requirements of G.L. c. 25, §§ 19(a) and (b), the Program Administrators

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[23] In response to discovery, the Program Administrators stated that sponsorship of these events provide an opportunity to network and develop new opportunities, and engage in conversations that will support the development and growth of energy efficient structures in the future (see, Exh. DPU-Comm 3-6 (Att)). At evidentiary hearings, the Program Administrators stated that these events also provide opportunities for their account executives to speak with "decision makers" and display various logos (Tr. 2, at 262-264).

must be prepared to support the reasonableness and prudence of all energy efficiency expenditures, regardless of the dollar amount.

Finally, Program Administrators with both gas and electric service territories have implied that costs for some sponsorships with benefits to gas ratepayers were not allocated to that operating company because the costs are de minimus (see, e.g., Tr. 2, at 212-213, 225). The Department expects all Program Administrators to correctly allocate costs to ensure that inappropriate cross-subsidization does not occur. The Department will review this issue further in the term reports.

d. Lobbying Organizations

The Department defines lobbying expense to include both actual lobbying efforts and data collection or analysis, along with other closely-related activities. D.P.U. 86-33-G at 101; D.P.U. 1720, at 74-75. The Department excludes lobbying expense from collection in rates in the absence of a showing of direct benefits to ratepayers. D.P.U. 86-33-G at 101; D.P.U. 1720, at 70-78. When requesting recovery of expenses for dues or fees paid to lobbying organizations, a company must present testimony or evidence regarding the structure and function of the organization, and the percentage (including the method used to derive the percentage) of resources devoted to lobbying and legislative activities. D.P.U. 1720, at 71. These same standards apply to Program Administrators when seeking to recover expenses, including sponsorship expenses, related to organizations that provide lobbying activities.

The Program Administrators argue that the sponsorship expenses paid to registered lobbyists and companies or organizations associated with lobbying are not spent on lobbying efforts or other lobbying-related activities (Program Administrator Brief at 38). The Program

Administrators were, however, unable to provide the Department with evidence showing what percentage of the sponsorship costs paid to lobbyists during 2013 through 2015 was used for lobbying activities and what percentage of the expenses was used for other, non-lobbying activities (Tr. 2, at 236-238).

Consistent with long-standing Department-precedent, Program Administrators will not be permitted to recover any sponsorship costs paid to registered lobbyists and other organizations or companies typically involved in lobbying activities, unless they clearly demonstrate a direct benefit to Massachusetts ratepayers. This is a difficult burden to meet. The Program Administrators must be prepared in their three-year term reports to provide evidence of how the funds at issue are used by the sponsored organization.[24] In addition, the Program Administrators must provide evidence that: (1) details the structure and function of the sponsored organization; (2) identifies the percentage of resources devoted to lobbying and legislative activities; and (3) provides the method used to derive the percentage. D.P.U. 86-33-G at 101; D.P.U. 1720, at 71, 74-75. Failure to provide such information will likely result in the disallowance of these costs.

e. Marketing and Advertising Expenses

The Department's precedent for cost recovery of marketing and advertising expenses is also well defined. Political and image advertising has been routinely excluded from cost recovery. Massachusetts Electric Company, D.P.U. 800, at 26 (1982); Boston Edison Company,

[24] For example, when sponsoring events associated with organizations that undertake lobbying efforts, the Program Administrators must demonstrate whether the sponsorship costs are for the event itself or are used by the organization for general support (see, e.g., Tr. 2, at 264).

D.P.U. 19991, at 28 (1979). In particular, the costs of image advertising designed to promote the general good will or better public relations of a company are not recoverable from ratepayers. Nantucket Electric Company, D.P.U. 91-106/138, at 60 (1991); The Berkshire Gas Company, D.P.U. 90-121, at 121 (1990); Hingham Water Company, D.P.U. 88-170, at 29-30 (1989).

A certain amount of proposed sponsorship funds are associated with events that include a display of a Program Administrator's logo (Tr. 2, at 247-250). As part of the three-year term reports, the Department will review all marketing and advertising costs associated with the Three-Year Plans to ensure that they meet the standards for cost recovery, including image advertising.

f. Program Administrator Procedures

The Department has recognized the importance of systematic, ample, and contemporaneous documentation of expenses in order to provide insight for the Department's later decision regarding recovery of costs from ratepayers. See Bay State Gas Company, D.T.E. 05-27-A at 50-51 (2007). Further, the Department has stated that there is no substitute for explanatory documentation and careful record keeping, which can avoid any problems of proof when cost recovery is sought in a Department proceeding. D.T.E. 05-27-A at 51.

For sponsorship expenditures, the Program Administrators' general practice is to assess each opportunity on a case-by-case basis, analyzing if the benefits of the sponsorship justify the costs (see, e.g., Tr. 2, at 201-202). Each Program Administrator conducts its own analysis of each sponsorship opportunity (Tr. 2, at 199-206). None of the Program Administrators have internal written policies regarding sponsorships, nor do they contemporaneously document their decision-making process related to each sponsorship decision (Tr. 2, at 199-206).

Without an explicit policy describing the process a Program Administrator uses to assess individual sponsorship opportunities and contemporaneous documentation of the process, it will be significantly more difficult for the Program Administrator to demonstrate that the benefits of that sponsorship justify the costs. Therefore, the Department directs each Program Administrator to develop a written policy regarding sponsorship expenses. At a minimum, the policy shall include the process a Program Administrator will use to determine whether it will enter into a specific sponsorship, including (with all appropriate documentation): (1) a detailed description of the direct energy efficiency-related benefit that the expenditures will provide to Massachusetts ratepayers;[25] (2) an identification of the cost category where the expense will be classified; (3) how the expenditure will be allocated between a Program Administrator's gas and electric operations, when applicable; (4) how the Program Administrator will determine if any marketing or advertising sponsorship costs are recoverable from ratepayers in a manner that is consistent with Department precedent; and (5) how the Program Administrator will determine if the sponsorship expenses for an organization that is a registered lobbyist are recoverable from ratepayers in a manner that is consistent with Department precedent.[26] Finally, the policy should describe an annual review process that each Program Administrator will undertake to determine whether the events or organizations sponsored the prior year realized the expected benefits.

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[25] For sponsorships of national or regional organizations and conferences, the Program Administrators must demonstrate that the benefits of the sponsorship are direct to Massachusetts ratepayers and not ratepayers of another state serviced by the Program Administrator.

[26] For sponsorships that are renewed each year, the Program Administrator shall include an analysis of the benefits that were achieved in prior years and the impact of the analysis on the decision to renew the sponsorship of the organization or event.

Each Program Administrator must file the written sponsorship policy with the Department together with its 2013 through 2015 Term Report. Development of such policies will facilitate the Department's review of each Program Administrator's sponsorship expenses. Starting in program year 2016, each Program Administrator must contemporaneously document the implementation of this policy for each organization or event they choose to sponsor. Failure to do so will likely result in disallowance of such sponsorship costs.

F. Conclusion

Based on our review, the Department concludes that each Program Administrator's 2016 through 2018 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) and Guidelines §§ 3.3.6, 3.3.7. In addition, the Department finds that each electric and gas Program Administrator has proposed to spend at least ten percent and 20 percent over the three-year planning period, respectively, of its energy efficiency program budget on low-income demand-side management and education programs, in compliance with G.L. c 25, § 19(c).

The Department finds that 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. Finally, to the extent it seeks to recover sponsorship expenses from ratepayers, each Program Administrator must be fully prepared to demonstrate the reasonableness and prudence of such expenses, including the direct energy-efficiency related benefit to Massachusetts ratepayers, as part of the three-year term reports.

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.[27] G.L. c. 25, § 21(b)(2)(v). The Program Administrators propose to implement a performance incentive mechanism for each year of the Three-Year Plans (Statewide Plan, Exh. 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 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 §§ 3.6.2, 3.6.3.

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[27] The Compact does not receive a performance incentive. D.P.U. 08-50-A at 51.

B. Program Administrators' Proposed Incentive Mechanism

1. Statewide Incentive Pool

The Program Administrators propose a statewide incentive pool equal to $100 million for electric Program Administrators, and $18 million for gas Program Administrators (Statewide Plan, Exh. 1, at 239).

2. Incentive Mechanism Structure

The Program Administrators' proposed incentive mechanism is based on the performance incentive model approved by the Department for the 2013 through 2015 three-year plans. One notable change is the removal of the performance metrics (Statewide Plan, Exh. 1, at 237-238).

The structure of the proposed incentive mechanism includes two components: a savings mechanism and a value mechanism.[28] The total performance incentive is the sum of these two components (Statewide Plan, Exh. 1, at 238-239).

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 (Statewide Plan, Exh. 1, at 241). Design-level performance is defined as 100 percent of a Program Administrator's projected benefits and net benefits (Statewide Plan, Exh. 1, at 241-242). 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 (Statewide Plan, Exh. 1, at 241). The cap for the

[28] The incentive payments that a Program Administrator can receive through the savings and value components are based on total benefits and net benefits, respectively, achieved through the implementation of a Program Administrator's energy efficiency programs. 2013-2015 Three-Year Plans Order, at 81 n.66.

total possible performance incentive earned across all components is 125 percent of design-level performance (Statewide Plan, Exh. 1, at 241). 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 (Statewide Plan, Exh. 1, App. R – Part 1 (Elec) (Rev.) (December 21, 2015) at 3-5; Part 2 (Gas) (Rev.) (December 21, 2015) at 3-5).

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 (Statewide Plan, Exh. 1, at 237). At a statewide level, 61.5 percent of the incentive has been allocated to the savings mechanism and 38.5 percent of the incentive has been allocated to the value mechanism (Statewide Plan, Exh. 1, at 238-239).

To determine the payout rate under the savings mechanism, the statewide incentive pool is multiplied by 61.5 percent; the product is then divided by the projected dollar value of statewide benefits (Statewide Plan, Exh. 1, App. R – Part 1 (Elec) (Rev.) (December 21, 2015) at 3; Part 2 (Gas) (Rev.) (December 21, 2015) at 3). The resulting payout rate for the savings mechanism is $0.0105518 per dollar of benefit for electric Program Administrators and $0.0067172 per dollar of benefit for gas Program Administrators (Statewide Plan, Exh. 1, App. R – Part 1 (Elec) (Rev.) (December 21, 2015) at 3; Part 2 (Gas) (Rev.) (December 21, 2015) at 3). To determine the payout rate under the value mechanism, the statewide incentive pool is multiplied by 38.5 percent; the product is then divided by the projected dollar value of statewide net benefits (Statewide Plan, Exh. 1, App. R – Part 1 (Elec) (Rev.) (December 21, 2015) at 3; Part 2 (Gas) (Rev.) (December 21, 2015) at 3). The resulting payout rate for the

value mechanism is $0.0109515 per dollar of net benefit for electric Program Administrators and $0.0089470 per dollar of net benefit for gas Program Administrators (Statewide Plan, Exh. 1, App. R – Part 1 (Elec) (Rev.) (December 21, 2015) at 3; Part 2 (Gas) (Rev.) (December 21, 2015) at 3).

C. Positions of the Parties

1. Program Administrators

The Program Administrators contend that the proposed performance incentive mechanism is based on the approach reviewed and approved by the Department for the 2013 through 2015 three-year plans (Program Administrator Brief at 50, citing 2013-2015 Three-Year Plans Order, at 98; Performance Metrics, D.P.U. 13-67, at 14-15 (2014)). Accordingly, the Program Administrators argue that the proposed incentive mechanism, including the incentive pool and payout rates, is consistent with the Green Communities Act and Department precedent (Program Administrator Brief at 51, citing Statewide Plan, Exh. 1, App. R (Rev.) (December 21, 2015); 2013-2015 Three-Year Plans Order, at 98).

The Program Administrators argue that the proposed performance incentive mechanism appropriately allows them to earn a modest return associated with their energy efficiency efforts based upon actual performance as compared to approved goals (Program Administrator Brief at 50). The Program Administrators assert that they appropriately applied the design principles outlined in Guidelines §§ 3.6.2-3.6.3 and in Department Orders when developing the performance incentive mechanism (Program Administrator Brief at 50-51, citing 2013-2015 Three-Year Plans Order, at 98; D.P.U. 13-67, at 14-15). The Program Administrators maintain that the design level performance incentive appropriately reflects the challenge of continuing to

adopt aggressive savings goals in 2016 through 2018 in light of achievements to date, the remaining savings opportunities identified in each service territory, and the Program Administrators' success as markets are transformed (Program Administrator Brief at 51, citing Statewide Plan, Exh. 1, at 239).

The Program Administrators do not agree with CLF and Mass Energy that the performance incentive pool should be split between residential and C&I sectors (Program Administrator Reply Brief at 8). Rather, the Program Administrators contend that the Council expressly considered and rejected a proposal to split the performance incentive pool for this three-year term (Program Administrator Reply Brief at 8, citing Council Meeting Minutes at 3 (October 26, 2015)). Further, the Program Administrators argue that splitting the incentive between sectors is inconsistent with the Green Communities Act, which requires the Program Administrators to seek all cost-effective energy efficiency wherever it is available, and Department Guidelines, which require a performance incentive mechanism to be designed to encourage the pursuit of all available cost-effective energy efficiency without regard for which sector the savings are achieved in (Program Administrator Reply Brief at 8-9, citing G.L. c. 25, §§ 19(a), 21(a), 21(b)(1), 21(b)(2), 21(d)(2); Guidelines § 3.6.2). The Program Administrators state that a split incentive would inappropriately encourage them to focus only on a sector in which performance incentives remain available, rather than to aggressively seek savings in a sector where additional opportunities may exist (Program Administrator Reply Brief at 9).

The Program Administrators argue that savings opportunities are not static. Instead, they maintain that opportunities evolve from year to year, due in part to changing energy prices and economic conditions (Program Administrator Reply Brief at 9). According to the Program

Administrators, the current performance incentive mechanism at the portfolio level allows for flexibility over the three-year term and across sectors, encouraging Program Administrators to achieve savings where they exist to reach portfolio goals (Program Administrator Reply Brief at 9, citing Statewide Plan, Exh. 1, at 233-239). The Program Administrators argue that this flexibility makes it possible for them to take on the additional risk associated with higher goals; if the Program Administrators were no longer able to achieve an incentive across the portfolio, they maintain that they would be less likely to commit to such higher goals (Program Administrator Reply Brief at 9).

In addition, the Program Administrators argue that splitting the performance incentive mechanism would be inconsistent with Department precedent as it would create varying payout rates between the sectors (Program Administrator Reply Brief at 9, citing 2013-2015 Three-Year Plans Order, at 93-94). The Program Administrators assert that the Department requires uniform payout rates to ensure that Program Administrators across the Commonwealth receive the same incentive payment for each dollar of total and net benefits achieved (Program Administrator Reply Brief at 9, citing 2013-2015 Three-Year Plans Order, at 93-94). The Program Administrators maintain that splitting the performance incentive between sectors could create a system in which benefits from different sectors are assigned a different payout rate (Program Administrator Reply Brief at 9-10). The Program Administrators argue that a split performance incentive could lead to even greater variance in these payout rates in the event a mid-term adjustment is sought in just one sector (Program Administrator Reply Brief at 10). According to the Program Administrators, because of the differences in service territories, including the number and variety of customers in a given area, a split performance incentive may have a

disproportionate impact on certain Program Administrators (Program Administrator Reply Brief at 10).

2. Conservation Law Foundation

CLF argues that the proposed performance incentive mechanism is not designed to encourage the full achievement of the C&I sector-specific electric and gas savings goals (CLF Brief at 9). CLF maintains that because the mechanism allows an incentive to be paid once the Program Administrator reaches 75 percent of its electric and gas targets at a portfolio level (rather than at a sector-specific level) the Program Administrator is able to compensate for any shortfall in achievements in the C&I sector with additional savings in the residential sector (CLF Brief at 9). According to CLF, the C&I sector is responsible for approximately twice the electric load as the residential sector, making up 64 percent of the Three-Year Plans' goal for total electric lifetime savings, and almost the equivalent gas load as the residential sector, comprising 41 percent of the Three-Year Plans' goal for total gas lifetime savings (CLF Brief at 9). CLF argues that because the C&I sector represents such a large component of the Commonwealth's electric and gas loads, achievement of the savings goals in this sector remains imperative for compliance with the Green Communities Act and to further the purposes of the Global Warming Solutions Act (CLF Brief at 9). CLF thus maintains that the performance incentive associated with the Program Administrators' achievement of their savings goals should be split between the residential and C&I programs in a manner proportional to the sector-specific savings goals to appropriately encourage full achievement of the C&I electric and gas sector goals within the Three-Year Plans (CLF Brief at 9-10).

3. Mass Energy

Mass Energy supports CLF's recommendation for a proportional allocation of Program Administrator performance incentives between the C&I and residential sectors (Mass Energy Brief at 20). Mass Energy asserts that as a Council member, it is concerned that incentives properly align with specific performance obligations (Mass Energy Brief at 20). Mass Energy contends that recent failures of the Program Administrators to meet C&I targets can be attributed to under-spending and the Program Administrators' failure to apply known improvements (Mass Energy Brief at 20). Mass Energy argues that correct design and application of incentives should support — and not work at cross-purposes to — the Green Communities Act's mandates for Program Administrator performance (Mass Energy Brief at 20, citing D.P.U. 11-120-A, Phase II at 14).

According to Mass Energy, the proposed performance incentive mechanism is primarily justified as a negotiated arrangement reached by the Attorney General, DOER, and the Program Administrators without any discussion of C&I sector performance (Mass Energy Reply Brief at 3-4). Mass Energy argues that separate sector incentives are appropriate in light of the Department's requirements that the incentive mechanism must, among other things: (1) be designed to encourage the Program Administrators to pursue all available cost-effective energy efficiency; (2) be designed to encourage the implementation of energy efficiency programs that will best achieve the Commonwealth's energy goals; and (3) be based on clearly-defined goals and activities that can be sufficiently monitored, quantified and verified after the fact (Mass Energy Reply Brief at 3-4). Mass Energy maintains that given the clear problems identified in the C&I sector and the relatively small additional effort required to split the incentive mechanism

between two sectors, the investment of time and resources for the purpose of verifying performance is not out of proportion with the potential benefit of performance metrics (Mass Energy Reply Brief at 3-4, citing Program Administrator Brief at 50).

4. Acadia Center

Acadia argues that the Department should approve the performance incentive mechanism as proposed by the Program Administrators in the Three-Year Plans but direct the Council and Program Administrators to collaborate on the evaluations of future changes to the performance incentive mechanism (Acadia Reply Brief at 4). Acadia notes that a proposal to split the performance incentive pool among sectors, as supported by CLF and Mass Energy, was discussed and ultimately rejected by the Council (Acadia Reply Brief at 4). Acadia contends that an abrupt change to the performance incentive structure, without full consideration of the effects of any change, is inappropriate. Instead, Acadia argues that performance incentives should be evaluated comprehensively by the Program Administrators and the Council in time to inform the development of the next three-year plans (Acadia Reply Brief at 4-5).

D. Analysis and Findings

1. Introduction

The Green Communities Act provides 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) two components (savings and value) 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 (Statewide Plan, Exh. 1, at 250). Each of these elements is discussed below.

Pursuant to the 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 while still providing appropriate incentives for the Program Administrators. Guidelines §§ 3.6.2, 3.6.3. The electric Program Administrators propose a statewide performance incentive pool of approximately $100 million for 4,122,144,000 kWh of total electric savings,[29] or approximately $0.02 per kWh of savings (Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)). The gas Program Administrators propose a statewide performance incentive pool of approximately $18 million for 85,809,618 therms of total gas

[29] Because the Compact does not collect a performance incentive, the savings goals here do not include the savings goal of the Compact.

savings, or approximately $0.21 per therm of savings (Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)). The proposed statewide incentive pool was endorsed by the Council (Statewide Plan, Exh. 1, App. R, at 3).

In the last three-year plans, the Department approved a statewide incentive pool equal to approximately five percent of the electric Program Administrators' budgets for each year, before taxes, and approximately three percent of the gas Program Administrators' budgets each year, before taxes. 2013-2015 Three-Year Plans Order, at 90. In the instant Three-Year Plans, the proposed statewide incentive pool is approximately 5.5 percent of the electric Program Administrators' budgets for each year, before taxes, and approximately 2.8 percent of the gas Program Administrators' budgets for each year, before taxes (Statewide Plan, Exh. 1, App. C - Part 1 (Elec) (Rev.) (December 21, 2015) at 15; Part 2 (Gas) (Rev.) (December 21, 2015) at 10). Therefore, the proposed statewide incentive pool, as a percentage of Program Administrators' budgets, is consistent with the statewide incentive pool in the last three-year plans (Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)). 2013-2015 Three-Year Plans Order, at 90.

After review, the Department finds that the funds available for performance incentives have been kept as low as possible, while still providing appropriate incentives for the Program Administrators (see Statewide Plan, Exh. 1, App. R (Rev.) (December 21, 2015)). Guidelines §§ 3.6.2, 3.6.3. Accordingly, the Department approves the Program Administrators' proposed statewide incentive pool (Statewide Plan, Exh. 1, App. R (Rev.) (December 21, 2015)).

b. Performance Incentive Components and Payout Rates

As noted above, the proposed performance incentive mechanism contains two components through which Program Administrators, minus the Compact, can earn incentive payments: a savings mechanism and a value mechanism (Statewide Plan, Exh. 1, at 234). The Program Administrators propose to allocate the statewide incentive pool to each component as follows: (1) 61.5 percent to the savings mechanism; and (2) 38.5 percent to the value mechanism (Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)). The Program Administrators' proposed incentive mechanism also includes the application of uniform statewide payout rates for the savings and value components. These payout rates are constant for the three-year term (Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015)). The Council has endorsed the proposed components and the method used to calculate the proposed payout rates for the savings and value components (Statewide Plan, Exh. 1, App. I).

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 Department's 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 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., 2013-2015 Three-Year Plans Order. Further, 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 see no reason to deviate from that past approach here. Rather, the Department finds that the proposed components, the allocation of incentive dollars to each component, and the application of uniform statewide payout rates are consistent with the goals of the Green Communities Act and Department precedent. See, e.g., 2013-2015 Three-Year Plans Order. Further, because the payout rates do not vary by year, the Department finds that the payout rates are consistent with the Department's Guidelines at § 3.6.4. For these reasons, the Department approves the method used to calculate the statewide savings and value component payout rates, as proposed.

3. Split Performance Incentive

CLF and Mass Energy recommend that the performance incentive associated with the Program Administrators' achievement of their savings goals be split between the residential and C&I programs in a manner proportional to the sector-specific savings goals (CLF Brief at 9-10; Mass Energy Brief at 19-20). CLF and Mass Energy contend that this approach will encourage the full achievement of electric and gas C&I sector goals (CLF Brief at 9-10; Mass Energy Brief at 20). The Program Administrators argue that a split performance incentive is not appropriate as it may create a disincentive for them to pursue all available cost-effective energy efficiency opportunities regardless of sector (Program Administrator Reply Brief at 9).

The Department's Guidelines require the design of performance incentives to encourage the pursuit all available cost-effective energy efficiency, without regard for which sector the savings are achieved in. Guidelines § 3.6.2. Likewise, the Green Communities Act requires the

Program Administrators to seek all cost-effective energy efficiency wherever it is available. G.L. c. 25, §§ 19(a), 21(a), 21(b)(1), 21(b)(2), 21(d)(2). The proposed performance incentive mechanism at the portfolio level allows for flexibility over the three-year term and across sectors, appropriately encouraging Program Administrators to achieve savings where they exist to reach portfolio goals. A split performance incentive would not encourage Program Administrators to seek all available cost-effective savings opportunities wherever they exist, but rather may encourage Program Administrators to focus on only the sector in which performance incentives remain available. This result would be contrary to the requirements of the Green Communities Act and the Department's Guidelines. For these reasons, the Department declines to adopt a split performance incentive.

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; and (3) calculation of the savings and value component payout rates.

VII. PROGRAM COST-EFFECTIVENESS

A. Introduction

The Green Communities Act requires the Department to ensure that the energy efficiency programs included in 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 are equal to or greater than the cumulative present value of its costs.[30] Guidelines § 3.4.3.1.

B. Program Administrators' Proposal

The Statewide Plan includes cost-effective programs in all sectors (Statewide Plan, Exh. 1, at 252; PA-specific Exh. 4, Table IV.D.1; D.P.U. 15-165, Exh. DPU-Berkshire-1-2). For some Program Administrators, certain core initiatives within programs are not cost-effective during particular program years (Exhs. Berkshire-4, Table IV.D.1; NG-Electric-4, Table IV.D.1; Compact-4, Table IV.D.1). For others, certain core initiatives within programs are not cost-effective over the term (Exhs. NG-Electric-4, Table IV.D.1; Compact-4, Table IV.D.1).

C. Positions of the Parties

1. Program Administrators

The Program Administrators argue that, overall, the programs in the Statewide Plan are highly cost-effective (Program Administrator Brief at 28). The Program Administrators argue that they have appropriately screened the energy efficiency programs for cost-effectiveness using the TRC test and that each proposed program has a benefit-cost ratio ("BCR") greater than one (Program Administrator Brief at 28-30). The Program Administrators concede that some core initiatives are not cost-effective as planned in particular program years. Nevertheless, the Program Administrators argue that, consistent with the Department's approval of the consolidation of core initiatives into programs, each Program Administrator's programs are cost-

[30] Program benefits and costs are addressed in Guidelines §§ 3.4.4 and 3.4.5, respectively.

effective during the 2016 through 2018 term (Program Administrator Brief at 30, citing 2013-2015 Three Year Plans Order, at 105).

The Program Administrators do not support DOER's recommendation that they be required to account for all participant incentives in a consistent manner at the measure level. Instead, the Program Administrators argue that they already appropriately account for participant incentives in the screening models and energy efficiency data tables (Program Administrator Reply Brief at 17). Specifically, the Program Administrators maintain that certain costs are appropriately included in the TRC test, such as PP&A, marketing and advertising, sales, technical assistance, and training, evaluation and market research, and performance incentives (Program Administrator Reply Brief at 17). The Program Administrators assert that these costs cannot be allocated to the measure level and, therefore, cannot be included in the screening model calculation worksheets at the measure level (Program Administrator Reply Brief at 17). Further, the Program Administrators argue that they account for participant incentives at the measure level where the incentives have an associated quantity or savings, but incentives that are not directly tied to a measure are generally not assigned to a measure in the screening model (Program Administrator Reply Brief at 17). The Program Administrators argue that it is not appropriate to assign every participant incentive to a measure, particularly in cases where there is not a clear relation to a measure in the form of a quantity or savings (Program Administrator Reply Brief at 17).

The Program Administrators also do not support DOER's recommendation that they be required to assign measure names from the technical reference manual ("TRM") to the BCR screening model, particularly for C&I measures where the Program Administrators argue that,

even in a given core initiative, a C&I customer can vary along several dimensions, justifying the differences in naming conventions between the TRM and the BCR screening model (Program Administrator Reply Brief, at 18). More specifically, the Program Administrators argue that the BCR screening model was designed to use general measure names to facilitate use by all Program Administrators across the state (Program Administrator Reply Brief at 15). By contrast, the Program Administrators contend that the TRM was designed to document how the Program Administrators consistently, reliably, and transparently calculate savings resulting from the installation of specific energy efficiency measures (Program Administrator Reply Brief at 15). The Program Administrators argue that to create the commonality for the BCR screening model, they had to combine measures and names used by different Program Administrators to create a common measure name (Program Administrator Reply Brief at 16). The Program Administrators assert that changing the names in either the BCR screening model or the TRM would negatively affect each mechanism's individual purpose and usefulness and could result in confusion for program rebate offerings, design, and delivery (Program Administrator Reply Brief at 17).

Further, the Program Administrators do not support DOER's recommendation to provide planned estimates of the quantity of measures or the quantity of combined end uses for the C&I sector (Program Administrator Reply Brief at 18). The Program Administrators explain that C&I implementation is project-based and is planned by end use, unlike residential implementation, which takes a product-based approach (Program Administrator Reply Brief at 18, citing Tr.2, at 303-305). According to the Program Administrators, the size and type of a C&I customer can vary widely, leading to varying participant incentives, quantity of measures, and savings

(Program Administrator Reply Brief at 18). Therefore, the Program Administrators argue, it is impossible to plan accurately at a measure level for these customers, making end uses the appropriate planning level. The Program Administrators note that they do track and account for C&I savings as they occur at the measure level, but combine those measures by end use in the plan year and term reports for an analogous comparison (Program Administrator Reply Brief at 18, citing Tr.2, at 304).

Finally, in response to DOER's recommendation that the Program Administrators adopt a uniform BCR format, the Program Administrators argue that while there are two basic forms of the BCR screening model, there is no confusion or inconsistency in application (Program Administrator Reply Brief at 19). The Program Administrators maintain that both forms of the BCR screening model are based on historic screening models that have been approved by the Department and are familiar to stakeholders (Program Administrator Reply Brief at 19). The Program Administrators argue that there are no differences in the inputs available in the two forms of the model and both formats use the same master data tab, the same names, the same line numbers, and produce the same results (Program Administrator Reply Brief at 19).

2. Department of Energy Resources

DOER argues that the Program Administrators should be required to implement three changes to the BCR screening model (DOER Brief at 9). First, DOER argues that Program Administrators should consistently account for all participant incentives at the measure level (DOER Brief at 9). Second, DOER argues that the Program Administrators should assign measure names from the TRM to the BCR screening model, as well as assign planned quantities for each C&I reported measure, including LED streetlight conversions, in the BCR screening

model (DOER Brief at 9). Finally, DOER argues that the BCR screening model format should be uniform among the Program Administrators and any modification to the format should be a collaborative effort (DOER Brief at 9). DOER maintains that these requested changes would not impact total savings, benefits, and costs in the Program Administrators' plans (DOER Brief at 9). DOER further claims that these changes will: (1) allow the Department to more accurately assess program cost-effectiveness; and (2) facilitate the development and achievement of higher savings goals (DOER Brief at 9).

With respect to its first recommendation, DOER argues that the Program Administrators currently apportion participant costs and participant incentives to each energy efficiency measure, and that the sum of all measures' participant costs in the BCR screening model matches those that the Program Administrators report in their program cost-effectiveness tests (DOER Brief at 10). DOER maintains that the approach of allocating participant incentives at the measure level varies across Program Administrators (DOER Brief at 10). According to DOER, requiring the Program Administrators to uniformly assign participant incentives to each measure will provide stakeholders with a deeper understanding of how each energy efficiency resource contributes to cost-effectiveness (DOER Brief at 10).

With respect to its second recommendation, DOER asserts that the Department should require all Program Administrators to: (1) use common TRM measure names throughout the BCR screening models; and (2) provide quantities for all C&I reported measures (DOER Brief at 11). Specifically, DOER claims that all Program Administrators should use common TRM measure names throughout their BCR screening models for C&I, as is currently done for residential and low-income (DOER Brief at 11). In addition, DOER argues that all Program

Administrators should provide the quantity of C&I measures to be installed and not use a binary indicator (DOER Brief at 11, citing Tr.2, at 306-311). According to DOER, Program Administrators summarize C&I measures by end use, and sometimes combine end uses, which makes it difficult to compare C&I planning by measure or by Program Administrator (DOER Brief at 11). By contrast, DOER argues that the consistent naming and enumerating quantities of residential measures has informed discussion, increased savings goals, and reduced costs in residential lighting (DOER Brief at 12). DOER claims that instituting a consistent approach to naming and enumerating energy efficiency resources will provide greater insight into reasons for variations in cost-effectiveness among Program Administrators (DOER Brief at 11-13).

With respect to its third recommendation, DOER argues that there should be consistency in BCR screening models (DOER Brief at 13). DOER argues that the Program Administrators have identical structures for their data worksheet and their D.P.U. 08-50 tables, and recommends that this practice should also be followed for the BCR screening models (DOER Brief at 13).

3. Acadia Center

Acadia asserts that each program in the Statewide Plan for each Program Administrator has a BCR greater than 1.0 and, therefore, satisfies the statutory requirement of cost-effectiveness (Acadia Brief at 8). Consequently, Acadia argues the Department should approve the Statewide Plan (Acadia Brief at 8).

Acadia supports DOER's proposed modifications to the BCR screening model (Acadia Reply Brief at 7). Acadia argues that DOER's approach is an effective way to improve uniformity, making comparisons between Program Administrators and program years easier (Acadia Reply Brief at 7). Acadia argues, however, that consideration of DOER's

recommendations should not interfere with the Department's approval of the Three-Year Plans and, if necessary, this issue should be addressed in a separate proceeding (Acadia Reply Brief at 7).

4. Mass Energy

Mass Energy argues that the Department should adopt DOER's recommendations regarding the Program Administrators' data collection and reporting, including implementation of clear and uniform cost-effectiveness screening (Mass Energy Reply Brief at 5).

D. Analysis and Finding

1. Cost-Effectiveness

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).

The Program Administrators are required to screen for cost-effectiveness at the program level. Guidelines § 3.4.3.1. After review, the Department finds that each Program Administrator has demonstrated that, based on the projected benefits and costs, all proposed energy efficiency programs are cost-effective (Exhs. CMA-4 (Rev.) (December 21, 2015); NG-Gas-4 (Rev.) (December 21, 2015); FGE-Gas-4 (Rev.) (December 21, 2015); LU-4 (Rev.) (December 21, 2015); Eversource-Gas-4 (Rev.) (December 21, 2015); Berkshire-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015); NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015)). See G.L. c. 25, § 21(a), (b)(3).

Although all programs are projected to be cost-effective, certain core initiatives within programs for some Program Administrators are not projected to be cost-effective during particular program years or over the term (Exhs. NG-Electric-4, Table IV.D.1; Compact-4, Table IV.D.1; DPU-Berkshire 1-2)).[31] In the last three-year plans, the Department allowed the Program Administrators to reclassify certain programs as core initiatives and then consolidate them into larger program offerings. 2013-2015 Three-Year Plans Order, at 105. The Department found that such reclassification was appropriate as it provides Program Administrators with needed flexibility in program implementation and reduces customer confusion regarding product offerings. 2013-2015 Three-Year Plans Order, at 105.

Flexibility in program implementation and avoiding customer confusion is important. However, there must be a balance between flexibility and managing budgets efficiently as the budgets continue to increase. In future three-year plan proceedings, the Department expects that the Program Administrators will plan to deliver cost-effective core initiatives over the plan term (Exhs. NG-Electric-4, Table IV.D.1 (Rev.) (December 21, 2015); Compact-4, Table IV.D.1 (Rev.) (December 21, 2015)). To the extent any core initiatives within programs are not projected to be cost-effective over the plan term, the Program Administrator should be prepared to demonstrate, in its plan year and term reports, how it plans to achieve cost-effective core initiatives going forward.

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[31] For example, Berkshire's residential behavior/feedback core initiative is not projected to be cost-effective in the 2018 plan year (Exh. DPU-Berkshire 1-2). The decrease is due to a 72 percent reduction in natural gas demand-reduction induced price effects benefits (Exh. DPU-Berkshire 1-2). However, over the three-year term, the residential behavior/feedback core initiative is cost-effective with a benefit-cost ratio of 1.01 (Exh. Berkshire-4, Table IV.D.1 (Rev.) (December 21, 2015)).

2. BCR Screening Model Recommendations

DOER requests that the Department require the Program Administrators to implement certain changes to the BCR screening models. Specifically, DOER argues that the Program Administrators should: (1) implement consistent accounting for all participant incentives at the measure level; (2) (a) assign measure names from the TRM to the BCR screening model, and (b) provide quantities for each C&I reported measure; and (3) adopt a uniform BCR screening model format (DOER Brief at 9).

In response to DOER's first recommendation, the Program Administrators claim that some costs (e.g., participant incentives) cannot be tied to any measures and, therefore, it is not appropriate to allocate these costs at the measure level (Program Administrator Reply Brief at 17). In addition, the Program Administrators argue that for measures that do not have associated savings (e.g., HEAT loan incentives), the BCR screening model is not an appropriate tool for tracking participant incentives at the measure level (Program Administrator Reply Brief at 17).

The BCR screening model is used to track impact factors and total resource costs for those measures that have direct savings and benefits attached to them (Tr. 2, at 294). Certain costs, such as participant incentives, cannot be attributed to specific measures. To attempt to do so would require Program Administrators to use an allocation method with no clear foundation. Such allocation would not be relevant to the Department's review of program cost-effectiveness. Therefore, we decline to require the Program Administrators to account for all participant incentives at the measure level in the BCR screening model.

Next, DOER recommends that the Department require the Program Administrators to use TRM measure names for all C&I measure reporting in the BCR screening model (DOER Brief at 9). The Program Administrators explain that for C&I measures, even in a given core initiative, a C&I customer can vary along several dimensions, justifying the differences in naming conventions between the TRM and the BCR screening model (Program Administrator Reply Brief, at 18). The Program Administrators further explain that in order to create commonality for the BCR screening model, they had to combine certain C&I measure names from the TRM (Program Administrator Reply Brief at 16). In addition, changing measure names in either the BCR screening model or the TRM at this time would negatively affect each mechanism's individual purpose and usefulness and could result in confusion for program rebate offerings, design, and delivery (Program Administrator Reply Brief at 17).

The Department appreciates the efforts of the Program Administrators in bringing a greater level of consistency to the BCR screening models for these Three-Year Plans, including the adoption of common naming conventions, consistent line numbering, and a uniform master data tab. The TRM and the BCR screening model serve different purposes (i.e., the TRM is designed to document how the Program Administrators calculate savings resulting from the installation of specific measures, while the BCR screening model is designed to measure program cost-effectiveness). Requiring the Program Administrators to use C&I measure names from the TRM in the BCR screening model would cause confusion in program rebate offerings, design and delivery, as well as reduce the Program Administrators' accuracy and flexibility in planning for different types of C&I customers. Therefore, we decline to require the Program Administrators to change the measure names in the BCR screening model. The Department

encourages the Program Administrators and DOER to review the inconsistencies in C&I measure names in the TRM and BCR screening model in the Common Assumptions Working Group, and continue to make adjustments to C&I measure names for consistency as necessary over the term.

DOER further requests that the Department direct the Program Administrators to provide quantities for C&I reported measures in the BCR screening models (DOER Brief at 11-12). The Program Administrators assert that such changes to the screening models are not appropriate because C&I measures are generally custom in nature. Therefore, they state that planning occurs at the end-use level (Program Administrator Reply Brief at 18-19). For planning purposes, the Program Administrators approach the C&I sector at the end-use level and, therefore, do not record individual measures in the BCR screening model (Tr. 2, at 303-304). Information at this level of granularity is not necessary for the Department's review of program-level cost-effectiveness in the three-year plans, and for that reason the Department declines to adopt DOER's recommendation. The Department recognizes, however, that more granular data pertaining to certain C&I measures may be important to DOER for energy efficiency planning purposes. Such information may also inform the Department's review of energy efficiency implementation in the plan year and term reports. Accordingly, the Department directs the Program Administrators to work with DOER to provide more information on those C&I measures where it is possible to report at the measure-level (e.g., certain lighting and prescriptive measures). We expect, however, that such changes will not alter the format of the BCR screening models.

Finally, in response to DOER's recommendation to adopt a uniform screening model, the Department notes that both forms of the screening model currently in use are based on historical

BCR models that have been reviewed and accepted by the Department as appropriate for program-level cost-effectiveness screening. See 2013-2015 Three-Year Plans Order, at 105-108; see also Gas Three-Year Plans Order, at 47-51; Electric Three-Year Plans Order, at 48-52. DOER has not provided any evidence that use of the current screening models is inconsistent, confusing, or otherwise deficient for screening program-level cost-effectiveness. Therefore, the Department declines to adopt DOER's recommendation in this regard.

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 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 an EES for electric Program Administrators, the Department must consider: (1) the availability of other private or public funds;[32] (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 requires the individual gas three-year plans to include a fully reconciling funding mechanism to collect energy efficiency

[32] 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.

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 RGGI to their customer sectors in proportion to each class' kWh consumption. Guidelines §§ 3.2.1.2 - 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. 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.[33] D.P.U. 08-50-D at 11. Accordingly, the Department directed the Program Administrators to submit bill impact analyses for customers who do not participate in the energy efficiency programs under the following four scenarios, comparing:

- the current EES (2015) to the projected EES for the first year of the three-year plan (2016);

[33] As applied to energy efficiency, a traditional bill impact analysis shows: (1) the existing EES; (2) the projected 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.

- the EES from the first year of the three-year plan (2016) to the projected EES for the second year of the three-year plan (2017);
- the EES from the second year of the three-year plan (2017) to the projected EES for the third year of the three-year plan (2018); and
- the current EES (2015) to the projected EES for the third year of the three-year plan (2018).

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, above).

B. Program Administrators' Proposal

1. Non-EES Revenues

a. Introduction

Each electric Program Administrator proposes to project revenues from non-EES funding sources for each year of its 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 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 allowance sales in each RGGI auction with 80 percent of the revenues allocated to electric efficiency programs (Statewide Plan, Exh. 1, at 277-279). The Program Administrators propose

to allocate SBC, FCM, and RGGI revenues to each customer sector in proportion to each class' kWh consumption (Statewide Plan, Exh. 1, at 277). Table 15 Electric Program Administrator Funding Sources, in Section XII, identifies the projected revenues from non-EES funding sources for each Program Administrator.

b. Provision of FCM-Supported Energy Efficiency Services

The electric Program Administrators propose to provide certain energy efficiency services to C&I customers who are not currently eligible for such services because, as wholesale and special contract customers, they do not pay an EES[34] (Statewide Plan, Exh. 1, at 278; Exh. DPU-Electric 2-1). The Program Administrators propose to use EES funds to support such projects, with such funds to be later offset by any revenues the projects generate in the FCM (Statewide Plan, Exh. 1, at 278; Exh. DPU-Electric 2-1; Tr. 3, at 339-340). The Program Administrators state that the incentives offered to these wholesale or special contract customers would be based on each project's anticipated FCM revenues as projected using historical benchmarks (Tr. 3, at 342).

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

[34] NSTAR Electric and WMECo state that they currently provide such service to some of their customers (i.e., certain wholesale customers and customers that have a mixture of wholesale and retail accounts) (Tr. 3, at 341-343). The other electric Program Administrators do not currently provide services to wholesale or special contract customers (Exh. DPU-Electric 2-1; Tr. 3, at 343-344).

funding sources for that year (see, e.g., Statewide Plan, Exh. 1, at 279; Exh. NG-Electric-4 (Rev.) (December 21, 2015)). The electric Program Administrators calculate separate EESs for their residential, low-income, and C&I customer classes (see, e.g., Exh. NG-Electric-4 (Rev.) (December 21, 2015)).

The gas Program Administrators propose to collect their projected budgets through their local distribution adjustment factor ("LDAF") as established by their LDAC tariffs (Statewide Plan, Exh. 1, at 32, 279-280).

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 (Statewide Plan, Exh. 1, at 280). The Program Administrators state, however, that they will continue to aggressively pursue other sources of funding[35] (Statewide Plan, Exh. 1, at 280).

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., Statewide Plan, Exh. 1, at 243; Exh. NG-Electric-6).

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35 In particular, the electric Program Administrators maintain that there is a low likelihood that a new federal cap and trade program as a funding source will be implemented in the foreseeable future (Statewide Plan, Exh. 1, at 280).

To calculate bill impacts for program participants, the Program Administrators developed statewide estimates to approximate savings for each customer class[36] (Statewide Plan, Exh. 1, at 243). 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., Statewide Plan, Exh. 1, at 243; Exh. NG-Electric-6).

C. Positions of the Parties

1. Program Administrators

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 40). 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 40, citing Statewide Plan, Exh. 1, at 242-243). 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 total benefits of nearly $8 billion from these plans and the persistence of savings to be achieved (Program Administrator Brief at 40, citing Statewide Plan, Exh. 1, App. D).

The Program Administrators argue that their proposal to provide energy efficiency services to wholesale and special contract customers that do not contribute to the EES is reasonable as it allows the Program Administrators to target additional customers and obtain all

[36] 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 (Statewide Plan, Exh. 1, at 243-244).

available cost-effective energy efficiency (Program Administrator Brief at 44-46). In addition, the Program Administrators note that this proposal would generally apply to custom C&I projects and, therefore, will help increase C&I participation (Program Administrator Brief at 46).

NSTAR Electric and WMECo state that wholesale and special contract customers generally have multiple accounts, including retail accounts that pay an EES (Program Administrator Brief at 44). NSTAR Electric and WMECo maintain that they provide these customers energy efficiency services based on the projects' anticipated FCM revenues rather than the customers' EES contribution, and that any excess FCM revenues generated from the installed measures will be used to offset the EES (Program Administrator Brief at 44).

The Program Administrators recognize that the Department has previously not allowed them to serve special contract customers due to concerns regarding cross-subsidization and because special contract customers are sophisticated energy consumers who are able to procure their own energy efficiency measures (Program Administrator Brief at 45, citing 2011 and 2012 Midterm Modifications, D.P.U. 10-140 through D.P.U. 10-150/D.P.U. 11-106 through D.P.U. 11-116, at 17 (2014) ("Midterm Modifications Order")). The Program Administrators contend, however, that because the incentives for these projects would be determined based on anticipated FCM revenues, the instant proposal adequately addresses cross-subsidization concerns (Program Administrator Brief at 45).

2. Attorney General

The Attorney General argues that the customer bill impacts of the 2016 through 2018 Plan investments presented by gas and electric Program Administrators are both measured and sustainable (Attorney General Brief at 4, 9).

3. Department of Energy Resources

DOER argues that the Program Administrators' Three-Year Plans strike an appropriate balance between the pursuit of all available energy efficiency and bill impacts on ratepayers (DOER Brief at 7). In addition, DOER supports the electric Program Administrators' proposal to serve customers that have both retail and wholesale special contract accounts with energy efficiency services based on anticipated FCM revenues (DOER Reply Brief at 4). DOER argues that significant opportunities for energy and costs savings exist with these large customers and that the approach proposed by the Program Administrators would reduce administrative costs and other barriers to the capture of cost-effective energy savings (DOER Reply Brief at 4). In addition, DOER maintains that participation of a large public entity, such as the Massachusetts Port Authority, would directly benefit the Commonwealth by increasing economic stability and reducing costs for services (DOER Reply Brief at 4).

4. Northeast Energy Efficiency Council

NEEC supports the electric Program Administrators' proposal to provide energy efficiency services to wholesale and special contract customers who do not contribute to the EES because these services would be funded by the anticipated FCM revenues generated by these projects (NEEC Reply Brief at 4). NEEC argues that the Program Administrators' proposal ensures the direct benefits of program participation flow to the customers bearing the costs of the programs while maximizing system benefits by expanding the pool of eligible customers and associated opportunities for savings (NEEC Reply Brief at 4).

5. The Energy Consortium / Western Massachusetts Industrial Group

TEC and WMIG argue that energy efficiency charges for very large energy consumers can result in significant bill impacts for individual firms doing business in Massachusetts. TEC and WMIG contend the level of energy efficiency charges for larger C&I customers may lead to negative economic consequences for these businesses including: limiting their ability to add new employees, preventing the expansion of production services in Massachusetts, or jeopardize adding benefits to existing employees (TEC/WMIG Reply Brief at 6). TEC and WMIG contend that electric rates, including mandated costs such as the EES, are often examined through the lens of a residential electric bill, and not a C&I electric bill where such outlays can have a significant impact on the firms' cost of doing business (TEC/WMIG Reply Brief at 6). TEC and WMIG argue that Department should create a working group to examine ways for C&I ratepayers to reduce energy demand, control costs, and create employment opportunities (TEC/WMIG Reply Brief at 6-8).

D. Analysis and Findings

1. Non-EES Revenues

The electric Program Administrators anticipate that they will 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 (Statewide Plan, Exh. 1, at 277). In addition, the Department finds that each electric Program Administrator projected RGGI revenues using reasonable assumptions regarding RGGI auctions during the upcoming term (Statewide Plan, Exh. 1, at 278-279). The

Department also finds that each electric Program Administrator projected FCM revenues over the three-year term in a reasonable manner (Statewide Plan, Exh. 1, at 277-278). As part of the term reports, the Department will consider whether the Program Administrators have taken all reasonable steps to maximize FCM revenues.

With respect to the electric Program Administrators' proposal to provide energy efficiency services to wholesale and special contract customers who do not pay the EES, the Department declined to approve a similar proposal by a gas Program Administrator in 2014. Midterm Modifications Order, at 41-42. The Department found that it is not appropriate for customers who pay the EES to subsidize energy efficiency programs for special contract customers who do not pay an EES. Midterm Modifications Order, at 42.

The electric Program Administrators argue that their proposal here presents no cross-subsidization concerns because the incentives for these projects would be set based on the projects' anticipated FCM revenues (Program Administrator Brief at 45). The Department notes, however, that the potential for cross-subsidization remains because these projects would initially be funded using EES revenues and, while anticipated FCM revenues would be considered in determining the customer incentive, there is no certainty that the required EES funds would be fully offset by FCM revenues (Tr. 3, at 339-342).

Consistent with our findings in the Midterm Modifications Order, at 42, the Department finds that is not appropriate for customers that do not pay the EES to receive ratepayer-funded energy efficiency services, even if the cost of such services is offset by FCM revenues received. Therefore, the Department does not approve the electric Program Administrators' proposal to provide energy efficiency services to customers who do not pay the EES.

Wholesale and special contract customers are large, sophisticated C&I customers who, in lieu of paying an EES, are able to invest in energy efficiency services on their own as a means to reduce costs. Midterm Modifications Order, at 42. Alternately, if a wholesale or special contract customer seeks to take advantage of energy efficiency services delivered through the Program Administrators, the customer may negotiate to pay the EES as part of its special contract rate. See Midterm Modifications Order, at 42. In fact, the Department has approved special contracts where the customer agreed to pay an EES in exchange for ratepayer-funded energy efficiency services. See e.g., Boston Gas Company, d/b/a National Grid and Veolia Energy Boston, Inc. (Kneeland Street), D.P.U. 13-GC-45 (2014). Where appropriate, we encourage the Program Administrators to adopt this approach as an efficient means to allow wholesale and special contract customers to take advantage of ratepayer-funded energy efficiency services while ensuring that these customers are not inappropriately subsidized by other C&I customers who do pay the EES.[37]

2. EES Revenues

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 electric Program

[37] To the extent a Program Administrator may seek to adopt an alternate approach to those suggested in this Order, that Program Administrator must be prepared to demonstrate how such a proposal will adequately ensure that the wholesale or special contract customer will pay all appropriate program costs and, thereby, avoid the potential that these customers will be subsidized by other C&I customers. At a minimum, the proposal must address administrative costs, marketing and advertising expenses, sponsorships and subscriptions, as well as performance incentives.

Administrators' proposal to collect their projected budgets through the EES contained in their EERF tariffs is consistent with the Guidelines. Similarly, the Department finds that the gas Program Administrators' proposal to collect their projected budgets through the EES contained in their LDAC tariffs is consistent with the Guidelines.[38]

3. 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 last three-year plans were approved, the gas and electric Program Administrators have provided several updates on their efforts to obtain outside funding (Statewide Plan, Exh. 1, at 16). The Program Administrators have demonstrated that, at this juncture, outside funding sources for energy efficiency investments are scarce. Accordingly, the Department finds 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 energy efficiency funding.

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[38] As discussed in Section IX.C below, starting with program year 2016, the gas and electric Program Administrators will adjust and reconcile the EES on an annual basis.

4. 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). The Department finds that both program participants and non-participants benefit from lower electricity costs from energy efficiency program savings (see Statewide Plan, Exh. 1, App. J, at 15). In particular, the Department finds that program participants have benefitted through lowered levels of consumption, and participants and non-participants have benefitted though reduced wholesale electricity prices and avoided investments in transmission and distribution (see Statewide Plan, Exh. 1, App. J, at 15, 244-285; see also Exh. NG-Electric-6, at 85-86). Accordingly, the Department finds that past energy efficiency programs have lowered electricity costs to consumers.

5. Bill Impacts

The Department considers the effect of bill impacts when approving customer funds to support energy efficiency programs.[39] D.P.U. 08-50-A at 58; 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,

[39] 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.

however, that when considering the reasonableness of a short-term bill impact, it is also important 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 only 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 total benefits of approximately $8 billion and net benefits of approximately $4.4 billion, resulting in approximately three dollars in benefits for every dollar spent, over the lifetime of the efficiency measures installed (Statewide Plan, Exh. 1, at 15). Total lifetime energy savings associated with the proposed energy efficiency programs will cost roughly $0.046 per kWh for electric efficiency programs and $0.58 per therm for gas efficiency programs, which is below the cost of the traditional energy resources that would otherwise need to be purchased by consumers (Statewide Plan, Exh. 1, at 19-20, App. J at 17).

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 714,802, 715,917, and 716,800 short tons in 2016, 2017, and 2018, respectively, for the electric and gas programs (Statewide Plan, Exh. 1, at 259). The Department finds that the energy efficiency programs in these Three-Year Plans will 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.[40] As we have observed, while energy efficiency programs result in increases in 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. 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 Exhs. CMA-6, NG-Gas-6, FGE(gas)-6, LU-6, Eversource-Energy(gas)-6A, Berkshire-6, NG-Electric-6, FGE(electric)-6, Eversource-Energy(electric)-6A, Compact-6).[41]

E. Conclusion

As discussed above, 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

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40 In this regard, TEC and WMIG ask the Department to convene a working group to consider ways to address the C&I bill impacts associated with the Three-Year Plans (TEC/WMIG Reply Brief at 6). The bill impacts from these Three-Year Plans show that C&I participants can expect to see bill decreases in the range of two percent to 21 percent (see, e.g., Exh. NG-Electric-6, at 86). Accordingly, the Department declines to adopt TEC and WMIG's recommendation for a C&I working group

41 The bill impacts we find reasonable here fully consider and incorporate the current thresholds for midterm modifications that a Program Administrator can make without review by the Department. Guidelines at § 3.8. As discussed in Section IX.C, below, the Department is considering certain modifications to these thresholds.

that each Program Administrator may recover the funds to implement its energy efficiency plan through its EES.

IX. OTHER ISSUES

A. Energy Efficiency-Related Pension/PBOP Cost Recovery

1. Introduction

The Program Administrators incur pension and post-retirement benefits other than pension ("PBOP") expenses related to the delivery of their energy efficiency programs. Accordingly, each Program Administrator has included these energy efficiency-related expenses in the cost-effectiveness analyses for its 2016 through 2018 Three-Year Plan (Exh. DPU-Comm 1-2).

Columbia, Unitil (gas), Liberty, NSTAR Gas, Berkshire, Compact, Unitil (electric), and NSTAR Electric – WMECo have included pension and PBOP costs in their budgets and propose to collect those costs through their respective EES (Statewide Plan, Exh. 1, at 280 n.136; Exhs. DPU-Comm 1-1; DPU-Comm 1-3). [42] Alternately, National Grid (gas) and National Grid (electric) propose to collect energy efficiency-related pension and PBOP expenses through their pension adjustment factors ("PAF"). In so doing, National Grid (gas) and National Grid (electric) propose to exclude pension and PBOP costs from their budgets and instead include

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[42] NSTAR Gas and NSTAR Electric originally proposed to collect energy efficiency-related pension and PBOP expenses through their pension adjustment factors. However, based on the Department's Order in NSTAR Gas Company, D.P.U. 14-150, at 302-303 (2015), the companies subsequently altered their proposal to collect energy efficiency-related pension and PBOP expenses through their respective EESs (Exhs. DPU-Comm 1-1 (NSTAR Gas); DPU-Comm 1-1 (NSTAR Electric - WMECo)).

them in the cost-effectiveness analyses as an additional line item (Exhs. DPU-Comm 1-1, DPU-Comm 1-3 (National Grid (gas)) (National Grid (electric))).

2. Position of the Parties

National Grid (gas) and National Grid (electric) argue that the recovery of all pension and PBOP expenses through a single reconciling mechanism via the PAF, is less complex than recovering these costs through multiple mechanisms and, therefore, will minimize the possibility of double recovery of such costs (Program Administrator Brief at 63). In particular, National Grid (gas) and National Grid (electric) maintain that their Massachusetts operating companies currently reconcile all non-capitalized pension and PBOP expenses through the PAF (Program Administrator Brief at 63). National Grid (gas) and National Grid (electric) argue that if energy efficiency-related pension and PBOP expenses were to be collected through the EES instead of the PAF, their accounting personnel would have to exclude those expenses from the monthly pension and PBOP deferral calculations (Program Administrator Brief at 63). Further, National Grid (gas) and National Grid (electric) assert that a corresponding adjustment would need to be made to their annual pension adjustment reconciliation filings (Program Administrator Brief at 63). Accordingly, to avoid unnecessary complexity and to minimize the risk of error and double recovery, National Grid (gas) and National Grid (electric) argue that the Department should approve their proposal to collect energy efficiency-related pension and PBOP expenses through the PAF (Program Administrator Brief at 63). No other party addressed the issue on brief.

3. Analysis and Findings

As described above, each Program Administrator, with the exception of National Grid (gas) and National Grid (electric), proposes to collect its energy efficiency-related pension and

PBOP expenses through the EES (Statewide Plan, Exh. 1, at 280 n.136; Exh. DPU-Comm 1-1).[43] National Grid (gas) and National Grid (electric) propose to collect energy efficiency-related pension and PBOP costs through the PAF (Exhs. NG-Gas-2, at 77-78; NG-Electric-2, at 85-86).

The Green Communities Act specifies that energy efficiency-related costs must be collected through a fully reconciling funding mechanism, and the Department has approved the EES for this purpose. G.L. c. 25, § 19(a), 21(b)(2)(vii); Guidelines, §§ 3.2.1, 3.2.2. The salaries and benefits, including pension and PBOP, of the Program Administrators' energy efficiency personnel are clearly energy efficiency-related costs. Therefore, the Department finds that these costs should be recovered through the EES and not the PAF.

Uniform inclusion of energy efficiency-related pension and PBOP costs by all Program Administrators in the energy efficiency budgets will streamline the required cost-effectiveness analyses. Further, uniform inclusion of these costs in the budgets and collection of these costs through the EES will facilitate the Department's review of these filings and ensure that all energy efficiency-related costs are properly reflected in the bill impact analyses. The Department expects that National Grid (electric) and National Grid (gas) will take all necessary steps to ensure that they do not over-collect their energy efficiency-related pension and PBOP costs. Accordingly, we are not persuaded by the arguments of National Grid (electric) and

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[43] National Grid (electric), NSTAR Electric, and NSTAR Gas currently collect their energy efficiency-related pension and PBOP costs through the pension adjustment factor and not the EES. 2013-2015 Three-Year Plans Order, at 79-80, n.63; Joint Motion by NSTAR Electric Company, NSTAR Gas Company and the Attorney General for Approval of a Settlement Agreement, D.P.U. 14-151, at 12 (2015). National Grid (gas) states that its approved EESs for 2013, 2014, and 2015 included energy efficiency-related pension costs (Exh. DPU-Grid-Gas 1-3). However, as of November 1, 2015, National Grid (gas) is crediting those costs back to customers through the EES and collecting them through the pension adjustment factor (Exh. DPU-Grid-Gas 1-3)

National Grid (gas) that the possibility of double recovery merits an alternate ratemaking treatment for these costs.

Consistent with the findings above, all Program Administrators shall collect energy efficiency-related pension and PBOP costs through the EES starting with program year 2016. Each Program Administrator that is currently collecting such costs through the PAF (i.e., National Grid (electric), National Grid (gas), NSTAR Electric, and NSTAR Gas), shall demonstrate in its next scheduled EES adjustment filing how such collection has been transferred from the PAF to the EES.[44] In addition, each Program Administrator shall show this transfer of costs in its next pension/PBOP reconciliation filing.

B. Residential Conservation Services

1. Introduction

Massachusetts established the RCS program in 1980 in response to the mandates of the National Energy Conservation Policy Act of 1978. Residential Conservation Services statute, G.L. c. 164 App., §§ 2-1 through 2-10. The RCS program creates a framework for providing residential customers with in-home energy conservation and renewable energy resource services. As a result of the Energy Act of 2012, Program Administrators may submit their RCS filings as part of 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).

[44] Such filings should include any necessary proposed tariff changes associated with the collection of energy efficiency-related pension and PBOP costs via the EES.

DOER has proposed updates to its RCS regulations that would, among other things: (1) allow the Program Administrators to serve multi-family electric customers with oil measures and potentially other deliverable fuels in the Residential Multi-Family Retrofit core initiative, Low-Income Multi-Family Retrofit core initiative, and C&I Multi-Family Retrofit core initiative (collectively, the "multi-family core initiatives"); (2) reinstitute a State Plan for implementing the RCS program that will be reviewed by DOER; and (3) expand the role of DOER in determining energy savings, outcomes, and program vendor qualifications. 225 C.M.R. § 4.00, Proposed Updates (January 2015).[45]

2. Program Administrator Proposal

As in the 2013 through 2015 Three-Year Plan, each Program Administrator proposes to include in its 2016 through 2018 Three-Year Plan, the RCS budget as part of the Residential Home Energy Services core initiative in the Residential Whole House program for each year (Statewide Plan, Exh. 1, at 61-62). The Program Administrators propose to continue to recover RCS costs through the EES (Statewide Plan, Exh. 1, at 279, n.134).

The Program Administrators seek approval to expand the multi-family core initiatives to provide cost-effective air sealing, insulation, and heating system measures through the electric programs, regardless of the heating fuel used at the property (i.e., serving customers in a "fuel-neutral" manner) (Exh. DPU-Comm 1-6).[46] Historically, under the multi-family core

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45 DOER's proposed updates to its RCS regulations may be found at http://www.mass.gov/eea/energy-utilities-clean-tech/energy-efficiency/policies-regs-for-ee/residential-conservation-services-rcs.html. DOER's proposed updates to its RCS regulations have not yet been promulgated.

46 The Program Administrators currently serve properties in the Residential Home Energy Services (one to four family units) core initiative regardless of the fuel used to heat the

initiatives, the Program Administrators only served properties that were heated with gas or electricity (Statewide Plan, Exh. 1, at 103). However, if the Department approves the Program Administrators' proposal, an electric Program Administrator would be permitted to install air sealing, insulation, and heating system measures in multi-family properties (i.e., properties with five or more units) under the multi-family core initiatives, even if the units are heated with oil, propane, or any other fuel source. Each electric Program Administrator has included the costs and benefits associated with serving these customers in its Three-Year Plan (Exh. DPU-Comm 1-6).

3. Positions of the Parties

a. Program Administrators

The Program Administrators argue that the Department should approve their proposal to offer weatherization and other measures to multi-family deliverable fuel customers because it builds on the historical delivery of energy efficiency programs and contributes to the goals of the Green Communities Act (Program Administrator Brief at 20). The Program Administrators assert that serving multi-family customers with deliverable fuels in a fuel-neutral manner will: (1) avoid lost opportunities in oil and propane heated homes; (2) maximize electric savings and other benefits; (3) allow the Program Administrators to seek deeper savings in multi-family properties; and (4) help address barriers to participation in energy efficiency programs (Program Administrator Brief at 18, 20). Further, the Program Administrators maintain that serving deliverable fuel multi-family customers will assist with the achievement of energy, capacity,

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properties. G.L. c. 164 App., §§ 2-1 through 2-10; St. 2012, c. 209, § 32(i); 225 C.M.R. § 4.00.

climate, and environmental goals, consistent with the Green Communities Act (Program Administrator Brief at 20).

The Program Administrators note that they have previously relied on the RCS statute, DOER's current RCS regulations, and Department approval of energy efficiency efforts for authority to provide deliverable fuel services to electric customers (Program Administrator Brief at 19). The Program Administrators maintain, however, that they have implemented broader energy efficiency programs in order to meet the requirements of the Green Communities Act, including an expansion of programs that originated under the RCS statute (Program Administrator Brief at 19-20). The Program Administrators argue that the Department should view the provision of deliverable fuel services to electric customers as part of the delivery of programs and achievement of all available cost-effective energy efficiency under the Green Communities Act (Program Administrator Brief at 20).[47]

Finally, the Program Administrators argue that their proposal to expand the multi-family core initiatives and provide heating measures to multi-family properties with deliverable heating fuels does not present a cross-subsidization concern because electric customers are realizing savings and benefits due to a decrease in their household energy costs based on energy efficiency efforts (Program Administrator Brief at 20, citing Tr. 1, at 120-121).

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[47] Initially, the Program Administrators maintained that they could expand the multi-family core initiatives pursuant to the proposed updates to DOER's RCS regulations (see, Statewide Plan, Exh. 1, at 103; Exh. DPU-Comm 1-6). The Program Administrators subsequently argued, however, that the multi-family core initiatives may be expanded to serve non-electric and non-gas heating properties under the Green Communities Act, and that updates to DOER's RCS regulations are not necessary to effectuate this change (Exh. DPU-Electric 4-1; Tr. 1, at 110-113).

b. Attorney General

The Attorney General argues that the Department should approve the Program Administrators' proposal to expand the provision of fuel-neutral energy efficiency services to residential customers living in multi-family premises (Attorney General Brief at 11). The Attorney General maintains that the proposed expansion is appropriate as it treats all residential customers the same, whether heating with gas, electric, or other deliverable fuels, and eliminates the current distinction between residential properties with one to four units and those properties with five or more units (Attorney General Brief at 12). The Attorney General argues that nothing in the statute prohibits the Department from approving the proposed expansion of services to multi-family residential customers (Attorney General Brief at 12). Therefore, the Attorney General maintains that the Department should now approve the proposed expansion of program eligibility to five or more unit multi-family residential housing heated with oil or propane (Attorney General Brief at 12).

c. Department of Energy Resources

DOER argues that the RCS statute provides clear authority for programs that deliver weatherization and equipment financial support to multi-family buildings heated with unregulated fuels including oil and propane (DOER Reply Brief at 5, citing G.L. c. 164 App. §§ 2-1 through 2-10). In addition, DOER maintains that the equitable delivery of energy efficiency services to all consumers, with a focus on reducing the high energy burden for low-income households, many of whom live in multi-family dwellings, is a priority (DOER Reply Brief at 5). For these reasons, DOER supports the Program Administrators' plan to

expand the multi-family core initiatives and provide cost-effective measures through the electric programs, regardless of the heating fuel used at the property (DOER Reply Brief at 5).

d. Acadia Center

Acadia argues that the Department should approve the Program Administrators' proposed plan to expand the multi-family initiatives to serve eligible oil- and propane-heated homes (Acadia Brief at 9-10). Acadia maintains that the Program Administrators' expanded offerings would result in additional cost-effective energy efficiency while providing equitable service to a difficult-to-reach segment (Acadia Brief at 9). Acadia asserts that, although the relevant updates to DOER's RCS regulations have not been finalized, the Department should approve the Program Administrators' proposed plan as required under the all cost-effective mandate of the Green Communities Act (Acadia Brief at 10).

e. Low-Income Energy Affordability Network

LEAN agrees with the Program Administrators' assertion that the Green Communities Act provides for the treatment of multi-family buildings on a fuel-neutral basis and, therefore, recommends that the Department approve the Program Administrators' proposal to expand the multi-family core initiatives (LEAN Brief at 1).

4. Analysis and Findings

The Department has reviewed the Program Administrators' proposed RCS budgets for the 2016 through 2018 Three-Year Plan term and finds that the budgets are reasonable. In addition, the Department has reviewed the Program Administrators' proposal to expand the multi-family core initiatives and provide deliverable fuel customers with cost-effective measures through the electric programs and finds the proposed expansion is reasonable. No party opposed

the Program Administrators' proposal and the expansion of the multi-family core initiatives does not negatively impact the overall cost-effectiveness of the programs. Accordingly, the Department approves the Program Administrators' RCS budgets for program years 2016 through 2018, including the proposed expansion of the multi-family core initiatives.

C. Energy Efficiency Guidelines

1. Introduction

The Guidelines were first established by the Department in 2000 in order to assist in the ongoing review and assessment of energy efficiency filings. See Methods and Procedures to Evaluate and Approve Energy Efficiency Programs, D.T.E. 98-100 (2000). The Guidelines are not static, but are intended to be updated over time. In this regard, the Guidelines were updated by the Department in 2009 and 2013.[48] These modifications were driven by both changes in the laws governing energy efficiency as well as experience gained by the Department through the ongoing implementation of the three-year plans.

In light of the experience we have gained over the previous three-year term, the Department intends to further update its Guidelines for the 2016 through 2018 term. One such update will reinstate the annual rate adjustment and reconciliation of the EES.[49] In addition, the

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48 The Guidelines were revised by Department in 2009 to reflect the requirements of the Green Communities Act. D.P.U. 08-50-B at 44-57. The Guidelines were subsequently modified by the Department in 2013 in order to align review of the energy efficiency plans with the three-year construct envisioned by the Green Communities Act. D.P.U. 11-120-A, Phase II at 2.

49 As discussed in Section VIII, above, the EES is a fully reconciling mechanism to fund energy efficiency programs. G.L. c. 25, § 21(d)(2); see also 2013-2015 Three-Year Plans Order, at 10; Guidelines § 3.2.1 et seq. For electric Program Administrators, the EES is collected through the EERF. See 2013-2015 Three-Year Plans Order, at 10; Guidelines

Department is considering implementing certain updates intended to clarify and improve the midterm modification process (see December 15, 2015 Hearing Officer Memorandum at 1).

2. Energy Efficiency Surcharges

Prior to the 2013 through 2015 plan term, each Program Administrator filed an updated EES annually. The annual EES was based on: (1) the Program Administrator's most recent projections of budgets, revenues from non-EES funding sources (for electric Program Administrators), and sales for the current year; and (2) a reconciliation of any under- or over-recovery of costs from the previous year.[50] D.P.U. 11-120-A, Phase II at 16.

Beginning in 2013, as part of the three-year plan proceeding, the Department approved for each Program Administrator, a separate EES for each year of the three-year term based on: (1) plan-year budgets; (2) expected revenues from non-EES funding sources; and (3) projected sales. Guidelines §§ 3.2.1.6, 3.2.2. The Department-approved EES for each year was intended to remain fixed during the term of the plan unless a Program Administrator's energy efficiency-related revenues deviated significantly from its costs in any plan year.[51] So long as it

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§§ 2(9), 3.2.1.6. For gas Program Administrators, the EES is collected through the LDAF. See 2013-2015 Three-Year Plans Order, at 10; Guidelines §§ 2(9), 3.2.2.

50 Each electric Program Administrator submitted its updated EES in a separate filing, with an effective date that coincided with the first semi-annual change in residential basic service rates. Each gas Program Administrator submitted its updated EES as part of its annual or semi-annual LDAF filing, with an effective date of November 1st or, for those gas Program Administrators that change their LDAF twice per year, effective dates of May 1st and November 1st.

51 A revised EES filing would be required when: (1) a projected under- or over-recovery of costs for a customer sector would result in a bill impact greater than two percent for an average customer; or (2) a projected under- or over-recovery of total costs would exceed 25 percent of the total revenues the Program Administrator projected to recover through its EES ("bill impact threshold triggers"). Guidelines §§ 3.2.1.6.3.1, 3.2.2.3.1.

remained within the bandwidth, any under- or over-recovery of costs during the three-year term would be collected from, or credited to, ratepayers during the subsequent three-year term. D.P.U. 11-120-A, Phase II at 17.

While the fixed surcharges were intended to improve the efficiency and effectiveness of our regulatory review, in practice, the established thresholds were confusing for the Program Administrators to implement. In addition, the bill impact threshold triggers overlapped with the midterm modification threshold triggers (discussed below), leading to multiple EES and midterm modification filings, most notably in the final year of the previous three-year plan. D.P.U. 11-120-A, Phase II at 20; see, e.g., Petition of Fitchburg Gas and Electric Light Company, d/b/a Unitil, for approval of its revised 2015 Energy Efficiency Reconciling Factors, for effect June 1, 2015, D.P.U. 15-35 (2015); Petition of Fitchburg Gas and Electric Light Company, d/b/a Unitil for Approval of: (1) a Mid-Term Modification to its Three-Year Energy Efficiency Plan for 2013 through 2015; and (2) Revised 2015 Residential Energy Efficiency Reconciling Factor, for effect August 1, 2015, D.P.U. 15-73 (2015).

On June 24, 2015, the Department held a meeting with stakeholders, including the Program Administrators, to discuss EES calculations and the presentation of bill impacts for the 2016 through 2018 three-year term. See, e.g., NSTAR Electric Company, D.P.U. 12-34, Hearing Officer Memorandum (June 18, 2015). During that meeting, the Department and stakeholders discussed updates to the Guidelines to again require the Program Administrators to annually

adjust and reconcile their EES.[52] See D.P.U. 15-GAF-P1 through D.P.U. 15-GAF-P8, Procedural Memorandum at 4 (July 17, 2015).

3. Midterm Modification Triggers

As part of the June 24, 2015 stakeholder meeting, the Department also raised the need to modify the midterm modification process as outlined in Guidelines § 3.8.2 to clarify the circumstances under which a midterm modification should be filed with the Department and to remove the two percent bill impact trigger defined in Guidelines § 3.8.2(3) once the Department returns to an annual rate adjustment and reconciliation of the EES.

On December 15, 2015, the Department sought written comment on proposed updates to the midterm modification process (December 15, 2015 Hearing Officer Memorandum at 1). The proposed updates contemplated the elimination of the two percent bill impact trigger for Department review of a midterm modification (December 15, 2015 Hearing Officer Memorandum at 3). In addition, the Department proposed to eliminate the 20 percent program budget increase/decrease trigger for Council review (December 15, 2015 Hearing Officer Memorandum at 3). Instead, the Department sought comment on an alternative that would require both Council and Department review if a Program Administrator proposed an increase of 20 percent to a sector budget.

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[52] In the instant proceeding, consistent with the updates discussed at the June 24, 2015 stakeholder meeting, the Compact proposed that the Department establish and reconcile its EES on an annual basis (Exh. Compact-2, at 28). On December 29, 2015, the Department approved, subject to reconciliation after further investigation, the Compact's EES for plan year 2016. The Compact's EES for 2016 included a past period reconciliation. Cape Light Compact, D.P.U. 15-177 (2015).

4. Positions of the Parties

a. Program Administrators

The Program Administrators support the proposed updates to the midterm modification process, as they argue that they provide the Program Administrators with flexibility to implement their programs while ensuring that significant modifications to budgets that impact customers are subject to timely review by both the Council and the Department (Program Administrator Brief at 73-75; Program Administrator Reply Brief at 25). According to the Program Administrators, the current bill impact trigger is cumbersome and may result in administrative delays, and the proposed revisions provide a clear, unambiguous threshold that ensures that all significant budget modifications are reviewed by both the Council and the Department (Program Administrator Brief at 74). The Program Administrators argue that the proposed revisions, combined with annual EES reconciliations, appropriately balance the principle of rate continuity, the statutory roles of the Council and the Department, and the Department's streamlining efforts (Program Administrator Brief at 73).

The Program Administrators maintain that they currently provide the Council with monthly updates on participation, budgets, savings and benefits, in addition to the detailed quarterly reports required by G.L. c. 25 § 22(d) and, therefore, the Council reviews and provides ongoing feedback to the Program Administrators on spending regardless of the midterm modification process established by the Department (Program Administrator Brief at 74-75). According to the Program Administrators, the proposed updates to the Guidelines do not affect the Council's advisory role or the Department's responsibility to review program implementation (Program Administrator Reply Brief at 22). Further, the Program Administrators argue that the

midterm modification process is not the only opportunity for the Council or the Department to review expenditures and performance, because the Program Administrators are also required to file plan year performance reports and term reports, which require explanations of variances at the core initiative level (Program Administrator Reply Brief at 23). The Program Administrators note that the Department may, based on information received through the various annual filings or at the request of the Council, investigate a Program Administrator's performance any time during a three-year term (Program Administrator Reply Brief at 23, citing Guidelines § 4.3).

b. Attorney General

The Attorney General does not support the Department's proposed updates to the midterm modification process and, instead, recommends that the Department maintain Council-only review for a modification that involves no more than a 20 percent increase or decrease to a program budget (Attorney General Brief at 16-17). According to the Attorney General, the proposed changes afford the Program Administrators broad discretion to unilaterally amend energy efficiency program budgets and reduce sector budgets without review by the Council or Department (Attorney General Brief at 16). The Attorney General argues that the proposed updates could compromise the Council's obligation under the Green Communities Act to ensure achievement of all cost-effective energy efficiency (Attorney General Brief at 16-17).

c. Department of Energy Resources

DOER recommends that the Department not modify Guidelines § 3.8 in the instant proceeding but, instead, subject the proposed changes to more comment and consideration (DOER Brief at 16-17; DOER Reply Brief at 3). According to DOER, the proposed updates have the potential to permit significant budget increases, with corresponding bill impacts,

through midterm modifications, without triggering any Council or Department review (DOER Brief at 16). Accordingly, DOER argues that the proposed changes could be counter to the goal of increased transparency for energy efficiency program costs (DOER Brief at 16). Further, DOER maintains that the proposed updates to the midterm modification process could impact the Council's ability to meet its statutory obligations (DOER Brief at 16-17).

d. Acadia Center

Acadia does not support the proposed updates to the midterm modification process, as it contends that such changes would permit the Program Administrators to implement significant budget increases without review or oversight (Acadia Brief at 18). Rather, Acadia recommends that the Department consider updates to the Guidelines in a separate proceeding in order to allow for Council input (Acadia Brief at 20; Acadia Reply Brief at 7-8). Acadia asserts that only four of the 29 midterm modifications that were reviewed by the Council in 2015 would require review under the new thresholds (Acadia Brief at 18). Further, Acadia argues that, under the proposed changes, significant decreases to Program Administrators' budgets would no longer be subject to review, which could potentially allow Program Administrators to abandon cost-effective initiatives (Acadia Brief at 19). Finally, Acadia argues that removing the bill impacts threshold could reduce the Department's scrutiny of the impact of budget changes on ratepayers' bills (Acadia Brief at 19).

e. Conservation Law Foundation

CLF does not support implementation of the proposed midterm modification updates in these proceedings (CLF Brief at 39). Instead, CLF asserts that the proposed revisions to the

Guidelines warrant Council input and that these proceedings are not the proper forum to address modifications to the Guidelines (CLF Brief at 39).

f. Mass Energy

Mass Energy does not support implementation of the proposed updates to the midterm modification process and, instead, recommends that the Department defer consideration of any proposed changes to a separate proceeding to allow stakeholders sufficient notice and opportunity to participate (Mass Energy Brief at 18-19; Mass Energy Reply Brief at 3). According to Mass Energy, the proposed updates directly impact the review responsibilities of the Council and remove opportunities for stakeholders to seek Department review (Mass Energy Brief at 18-19). Further, Mass Energy argues that the proposal for the Council and the Department to review an increase (but not decrease) of 20 percent or more in a sector-level budget is problematic as it may involve very large budget changes and could implicate the three-year planning process. Mass Energy argues that while overspending is a concern, under-spending could result in significantly reduced performance as measured in energy savings, greenhouse gas reductions, and net benefits (Mass Energy Brief at 19).

5. Analysis and Findings

a. Introduction

The Department's Guidelines are not a creation of statute or Department regulation; rather, they were established by the Department in order to assist in the ongoing review and assessment of energy efficiency filings. See G.L. c. 25, § 19; G.L. c. 25A, § 11G; D.T.E. 98-100, at 2 (February 7, 2000), citing D.T.E. 98-100, at 2 n.5 (January 8, 1999). As described above, the Guidelines have been modified by the Department over time to address both

changes to the law as well as to reflect experience gained by the Department through the ongoing development of the three year plans. See D.P.U. 11-120-A Phase II; D.P.U. 08-50-B.

b. Energy Efficiency Surcharge

When considering updates to the Guidelines, the Department seeks to strike an appropriate balance between flexibility of three-year planning with the appropriate oversight. D.P.U. 11-120-A Phase II at 27. Based on our experience with the 2013 through 2015 three-year plans, the Department has determined that a modification to the EES rate adjustment and reconciliation process is required. See, e.g., NSTAR Electric Company, D.P.U. 12-34, Hearing Officer Memorandum (June 18, 2015).

As discussed above, the three-year EES rate adjustment and reconciliation process established in D.P.U. 11-120-A Phase II at 17 was intended to streamline the EES review process and reduce the number of related rate filings each year. In practice, however, the established thresholds proved confusing to implement and overlapped with the midterm modification threshold triggers (discussed below) leading to multiple EES and midterm modification filings, in particular, in the final year of the term. See e.g., D.P.U. 15-73; D.P.U. 15-35. Reestablishing annual EES rate adjustments and reconciliations will not impact the performance or the implementation of energy efficiency programs. The Department finds that the return to an annual EES rate adjustment and reconciliation is both administratively efficient and will promote the goal of rate continuity by limiting the possibility of significant EES under- or over-recoveries that would not be reconciled until the end of a term under the current Guidelines § 3.2.1.6.4.

Accordingly, starting with plan year 2016, the Department will implement an annual EES rate adjustment and reconciliation.[53]

On an annual basis, each Program Administrator shall submit an updated EES for Department review, based on: (1) the Program Administrator's most recent projections of budgets, revenues from non-EES funding sources (for electric Program Administrators), and sales for the current year; and (2) a reconciliation of any under- or over-recovery of costs from the previous year. Each electric Program Administrator shall submit its updated EES in a separate EERF filing, with an effective date that coincides with the first semi-annual change in residential basic service rates after January 1st of each year.[54] Each gas Program Administrator shall submit its updated EES as part of its LDAF filing, with an effective date of November 1st. Each electric EES filing shall be made with the Department no later than 60 days before the effective date of the proposed rate change. Each gas EES filing shall be made in accordance with the timeline set forth in each Program Administrator's LDAC tariff.[55]

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53 As discussed in footnote 52, above, the Department has approved subject to reconciliation after investigation the Compact's 2016 EES in D.P.U. 15-177. Further, the Department has approved an EES for each gas company for effect November 1, 2015. See, e.g., The Berkshire Gas Company, D.P.U. 15-GAF-P2 (October 30, 2015) (approving the Company's LDAF and gas adjustment factor filings).

54 The effective date of each electric EES is as follows: National Grid (electric) – May 1st; Unitil (electric) – June 1st; NSTAR Electric and WMECo - July 1st. Further, pursuant to 2013-2015 Three-Year Plans Order, at 125 n.106, the effective date of the Compact's EES shall be January 1st of each year.

55 As part of its next EES or LDAF filing, each gas and electric Program Administrator shall file a revised LDAC or EERF tariff, respectively, consistent with the directives contained in this Order. In the revised tariffs, the Program Administrators should eliminate all language referencing the Guidelines §§ 3.2.1.6.4, 3.2.1.6.4.1(a), (b), 3.2.1.6.4.2, 3.2.2.3, 3.2.2.3.1(a), (b), 3.2.2.3.2. The Department will amend the Guidelines to incorporate these changes at a later date.

c. Midterm Modifications

As noted above, the Department's Guidelines are not a creation of statute or Department regulations. See G.L. c. 25, § 19; G.L. c. 25A, § 11G; D.T.E. 98-100, at 2 (February 7, 2000), citing D.T.E. 98-100, at 2 n.5 (January 8, 1999). The Green Communities Act does not address energy efficiency plan modifications. The Department recognized that three-year plans are constantly evolving during the term, and so intended for the Guidelines to be updated to reflect changes in Department policy and practice as our experience implementing the three-year plans developed over time. For that reason, the Department allows Program Administrators under certain circumstances to modify their energy efficiency plans during the three-year term as new information or new opportunities become available. D.P.U. 08-50, at 36. In this regard, the Department has established policy directives, as memorialized in the Guidelines, regarding the appropriate scope of and review procedures for midterm modification filings. Guidelines § 3.8.

As part of these proceedings, the Department sought comment on a proposal to eliminate the two percent bill impact trigger because it would no longer be needed in concert with annual EES rate adjustments and reconciliations. In its place, the Department proposed to implement an alternate threshold that would require review if a Program Administrator proposed an increase to a sector budget above the threshold. The Department's intent was to provide Program Administrators with the flexibility to respond to changing circumstances, while ensuring that they implement their plans in a manner consistent with the Department-approved plans. D.P.U. 11-120-A Phase II at 27.

Although the Program Administrators supported the proposed changes, other commenters raised both substantive and procedural concerns (Attorney General Brief at 16-17; Acadia Brief

at 18-20; DOER Brief at 16-17; CLF Brief at 39; Mass Energy Brief at 18-19). Accordingly, in order to permit a more comprehensive review of any changes to the midterm modification process, the Department will defer consideration of these proposed updates to a subsequent proceeding.

D. Cape Light Compact – National Grid (gas) Agreement

1. Introduction

The Compact is an electric municipal aggregator serving Cape Cod and Martha's Vineyard, pursuant to G.L. c. 164, § 134; Cape Light Compact, D.P.U. 00-47-C (2001); Cape Light Compact, D.P.U. 07-47 (2007). The Compact states that it has been administering its residential energy efficiency programs in a fuel-neutral manner since the Department approved its initial energy efficiency plan in 2001 (Exh. Compact-2, at 16). The Compact states that this approach has included serving National Grid (gas) customers who heat their homes with natural gas and choose to be served by the Compact (Exh. Compact-2, at 16). [56]

On November 2, 2015, National Grid (gas), the gas Program Administrator serving certain customers on Cape Cod, filed a petition to intervene in the Compact's Three-Year Plan filing ("National Grid (gas) Petition"). In its petition, National Grid (gas) asserted that the Compact's proposal to provide gas energy efficiency measures in the National Grid (gas) service territory could result in the Compact's electric energy efficiency funds subsidizing gas energy

[56] As a municipal aggregator, the Compact asserts that it is authorized to provide services that may differ from those provided by the utility Program Administrators (Exh. DPU-Compact 1-12, citing G.L. c. 164, §134(b)). Further, the Compact contends that G.L. c. 164, § 134 allows it, as a municipal aggregator, to implement cost-effective energy efficiency programs within its discretion as part of its energy efficiency plan (Exh. DPU-Compact 1-12, citing D.P.U. 00-47-C at 21; D.P.U. 07-47, at 14-15).

efficiency services that would otherwise be provided by National Grid (gas) (National Grid (gas) Petition at 3).

Since their respective initial filings in D.P.U. 15-161 and D.P.U. 15-166, National Grid (gas) and the Compact represent that they have negotiated an agreement in principle to administer energy efficiency services to their mutual customers on Cape Cod for the 2016 through 2018 term (Exh. DPU-Compact 1-14). During the December 10, 2015 evidentiary hearing, the Compact and National Grid (gas) provided further information on the proposed agreement (Tr. 4, at 372-390).

On December 21, 2015, the Compact and National Grid (gas) filed an agreement ("Agreement") with the Department that outlines the terms and conditions for serving mutual Compact and National Grid (gas) customers on Cape Cod. Specifically, National Grid (gas) and the Compact will contract with a joint lead vendor to provide energy efficiency services to their mutual customers (Agreement at 2). The joint lead vendor will bill National Grid (gas) or the Compact, as applicable, for the energy efficiency services provided to gas customers; National Grid (gas) will claim gas energy efficiency savings and the Compact will claim energy efficiency savings from electricity and other fuels (Agreement at 2). National Grid (gas) will provide gas customers with incentives consistent with its approved programs (Agreement at 2). If the Compact offers additional incentives to gas customers as part of its approved programs, then the Compact will be responsible for the costs associated with the added incentives but National Grid (gas) will still claim all gas energy efficiency savings (Agreement at 2-3). The Agreement provides that the Compact and National Grid (gas) will negotiate, by January 31, 2016, a more

detailed final agreement, to guide the provision of energy efficiency services for their mutual customers (Agreement at 3).

2. Position of the Parties

The Compact requests that the Department approve its Agreement with National Grid (gas) asserting that it is consistent with the Statewide Plan's goal to have a delivery model for the Home Energy Services core initiative where electric and gas Program Administrators have overlapping service territories (Program Administrator Brief at 70-71). The Compact contends that the Agreement accomplishes the Statewide Plan's goal through the use of a joint lead vendor for the delivery of energy efficiency services to mutual customers of the Compact and National Grid (gas) on Cape Cod, with each Program Administrator claiming its respective gas or electric savings associated with the energy efficiency services provided (Program Administrator Brief at 71). No other party addressed the issue on brief.

3. Analysis and Findings

The Department recognizes the importance of consistency in the delivery of energy efficiency services in areas where electric and gas Program Administrators have overlapping service territories. However, the preliminary Agreement between the Compact and National Grid (gas) addressing the administration of energy efficiency services for their mutual customers on Cape Cod was filed on December 21, 2015, nearly two months after the Three Year Plans were filed with the Department and after the close of both discovery and evidentiary hearings.

Given the late filing date and the 90-day statutory review period for the Three-Year Plans, the Department finds that the Compact and National Grid (gas) have not provided the Department with sufficient time to review the Agreement. Further, by their own admission, a

final agreement is still subject to negotiation and will not be finalized before the issuance of this Order. Accordingly, the Department defers consideration of the provision of gas energy efficiency services to the mutual customers of the Compact and National Grid (gas) on Cape Cod to a separate proceeding.

Therefore, as soon as it is complete, the Compact and National Grid (gas) shall file any final agreement regarding the provision of gas energy efficiency services to their mutual customers on Cape Cod with the Department for review. The filing shall include pre-filed testimony and exhibits describing the impact of the agreement on their respective 2016 through 2018 Three-Year Plans as well as support for why the terms of such agreement are appropriate.[57]

E. NSTAR Electric and WMECo 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. 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). As part of the Department's investigation of the previous three-year plans, NSTAR Electric and WMECo sought approval to implement a single integrated energy efficiency plan. D.P.U. 12-110/12-111, Petition for Approval of its Energy Efficiency Investment Plan at 2. Specifically, NSTAR Electric and WMECo sought to implement: (1) common program design and implementation activities; (2) an aggregated program budget; (3) review of program cost-effectiveness on a combined basis; (4) a common

[57] Such support should include, but not be limited to, a discussion of the appropriateness of the use of the Compact's electric energy efficiency funds for gas energy efficiency services.

performance incentive mechanism; and (5) aggregate common savings goals. D.P.U. 12-110 (Exhs. DPU-WMECo 2-39; DPU-NSTAR 2-58).

The Department approved the proposal for common program design and joint implementation of energy efficiency programs. 2013-2015 Three-Year Plans Order, at 137, 142. The Department did not, however, approve NSTAR Electric's and WMECo's proposal to implement an aggregate program budget, a cost-effectiveness review on a combined basis, a common performance incentive mechanism, or common savings goals. 2013-2015 Three-Year Plans Order, at 137-142. Instead, the Department required NSTAR Electric and WMECo to file all energy efficiency reports for the 2013 through 2015 term, both on an individual and an aggregated basis, and stated that it would 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.

2. NSTAR Electric – WMECo Proposal

a. Introduction

In the instant Three-Year Plan, NSTAR Electric and WMECo again seek Department approval of one fully aggregated energy efficiency plan (Exh. Eversource-Electric-2, at 83-84). NSTAR Electric and WMECo propose that the plan include: (1) common program design and implementation; (2) common savings goals; (3) a common budget; (4) cost-effectiveness review on a combined basis; (5) a common performance incentive; and (6) a combined assessment of the low-income spending obligation (Exhs. Eversource-Electric-2, at 83-86; DPU-Eversource-Electric 2-4). NSTAR Electric and WMECo will each maintain a separate EES (Exhs. Eversource-Electric-2D; Eversource-Electric-2F).

NSTAR Electric and WMECo propose to track projects, savings, and spending separately for each service territory using an internal tracking system (Exh. DPU-Eversource-Electric 2-3). NSTAR Electric and WMECo propose to file aggregated plan year and term reports with the Department for the 2016 through 2018 term, including aggregated D.P.U. 08-50 tables (Tr. 6, at 467-468, 479-480). NSTAR Electric and WMECo propose, however, to file separate BCR screening models as part of these filings, in order to allow the Department and other stakeholders to review performance in the individual service territories (Tr. 6, at 467-468). Finally, NSTAR Electric and WMECo propose to use the integrated budgets, savings goals, and performance incentives to determine whether midterm modification thresholds have been exceeded (Exh. Eversource-Electric-2, at 88-89).

b. Program Budget

As discussed above, NSTAR Electric and WMECo propose to implement an aggregated energy efficiency program budget (Exh. Eversource-Electric-2, at 85). Within the aggregated budget, however, the costs associated with energy efficiency services delivered in each service territory will be recovered from customers in that service territory; common expenses will be allocated among the service territories using the method outlined below (Exh. DPU-Eversource-Electric 2-7).

c. Cost Allocation and Tracking

NSTAR Electric and WMECo propose to track energy efficiency costs separately for each service territory (Exh. DPU-Eversource-Electric 2-3). Costs that are incurred in an individual company's service territory will be charged directly to that company (Exh. DPU-Eversource-Electric 2-7). Joint implementation costs that are not directly linked to

the installation of measures (i.e., primarily internal labor costs) will be allocated based on the job function and responsibilities of each full-time equivalent ("FTE") employee (Exh. DPU-Eversource-Electric 2-1). Costs associated with an FTE whose responsibilities fall in one service territory will be allocated to that particular service territory (Tr. 6, at 458-460). Costs associated with an employee whose responsibilities are spread across the NSTAR Electric and WMECo service territories will be allocated based on the 2014 planned energy efficiency budgets (Exh. DPU-Eversource-Electric 4-3; Tr. 6, at 445-447).[58] Legal and regulatory fees will be allocated using the same method (Exh. DPU-Eversource-Electric 2-1). Finally, NSTAR Electric and WMECo propose to allocate other common PP&A costs (e.g., certain IT-related costs) based on an even weighting of program budgets and the number of customers in each service territory (Exh. DPU-Eversource-Electric 4-3; Tr. 6, at 450-451).

d. Low-Income Budgets

NSTAR Electric and WMECo propose to meet the ten percent low-income spending requirements of G.L. c. 25, § 19(c) in the aggregate (Exh. DPU-Eversource-Electric 2-4). Broken out, WMECo expects to spend 15 percent of its budget on low-income programs for each year, 2016 through 2018. NSTAR Electric plans to spend ten percent, 9.3 percent, and 8.6 percent of its budget on low-income programs for 2016, 2017, and 2018, respectively (Exh. DPU-Eversource-Electric 2-4).

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[58] During the 2016 through 2018 term NSTAR Electric and WMECo expect that each will spend, as a percentage of the overall budget, an amount consistent with the planned budget for 2014 (Tr. 6, at 447). If spending levels change, however, NSTAR Electric and WMECo state that they would likely seek to update the allocation percentages (Tr. 6, at 447-448).

e. Performance Incentive Mechanism

NSTAR Electric and WMECo seek approval of a common performance incentive mechanism (Exh. Eversource-Electric-2, at 87-88). NSTAR Electric and WMECo propose to calculate the savings and value components based on both companies' combined performance under the plan (Exh. Eversource-Electric-2, at 87-88; Tr. 6, at 470-471). NSTAR Electric and WMECo propose to allocate performance incentives to the individual companies based on the service territory where the benefits were accrued (Exh. DPU-Eversource Electric 2-5).

3. Position of the Parties

NSTAR Electric and WMECo argue that an integrated plan will fulfill each company's energy efficiency obligations while also providing administrative efficiencies, with no adverse effects on customers (Program Administrator Brief at 52). NSTAR Electric and WMECo argue that aggregate savings goals will benefit their customers by facilitating the use of best practices when implementing common energy efficiency programs (Program Administrator Brief at 53).

NSTAR Electric and WMECo maintain that the energy efficiency budgets are structurally identical in both service territories, and that any prior differences were addressed during the 2013 through 2015 term (Program Administrator Brief at 54, citing Exh. Eversource-Electric-2, at 85). NSTAR Electric and WMECo argue that maintaining separate budgets would create unnecessary administrative burdens that can be mitigated through a joint plan (Program Administrator Brief at 54). NSTAR Electric and WMECo further argue that integrated budgets and program delivery will allow the companies to reduce costs through efficiencies, as seen in the previous three-year term (Program Administrator Brief at 55, citing Exh. DPU-Eversource-Electric 2-8). Finally, NSTAR Electric and WMECo maintain that they

will track costs separately in each service territory and that internal labor and common resource costs will be allocated using an appropriate method (Program Administrator Brief at 54-55).

NSTAR Electric and WMECo argue that the Department should approve their proposal to meet the ten percent low-income spending obligation in the aggregate (Program Administrator Brief at 56). NSTAR Electric and WMECo contend that the disparity in projected low-income spending between companies over the term is due to demographic differences between the service territories (Program Administrator Brief at 56). NSTAR Electric and WMECo maintain that their integrated Three-Year Plan is designed to achieve all cost-effective energy efficiency in both service territories, and they will continue to work with their lead vendor and LEAN to ensure that low-income customers in both service territories are adequately served by the energy efficiency programs (Program Administrator Brief at 56).

With respect to performance incentives, NSTAR Electric and WMECo argue that their proposal to operate under an integrated plan will not affect: (1) the total incentive dollars allocated to the companies; (2) the percentage allocated to the various incentive components; or (3) the statewide payout rates (Program Administrator Brief at 58). Further, NSTAR Electric and WMECo maintain that each company's ratepayers will only pay for benefits achieved within their service territory (Program Administrator Brief at 58). No other party addressed this issue on brief.

4. Analysis and Findings

a. Introduction

As described above, NSTAR Electric and WMECo seek approval of a fully aggregated energy efficiency plan (Exhs. Eversource-Electric-2, at 83-86; DPU-Eversource Electric 2-4).

NSTAR Electric and WMECo maintain that their integrated plan, including aggregated savings goals, is designed to achieve all cost-effective energy efficiency in each service territory (Tr. 6, at 464-465). No party opposed NSTAR Electric's and WMECo's proposal to implement an integrated energy efficiency plan. The Department addresses issues relating to the allocation and tracking of energy efficiency costs, low-income budget requirements, and performance incentives, below.

b. Cost Allocation and Tracking

NSTAR Electric and WMECo state that during the last three-year term they eliminated all material differences in energy efficiency budgets between the two companies (Exh. Eversource-Electric-2, at 85). NSTAR Electric and WMECo state that they will continue to track all costs separately in each service territory and propose a method to allocate joint costs amongst the two companies (Exhs. DPU-Eversource-Electric 2-1; DPU-Eversource-Electric 2-7; DPU-Eversource Electric 4-3; Tr. 6, at 446-447).

The Department finds that NSTAR Electric's and WMECo's proposed method for tracking and allocating costs is reasonable.[59] NSTAR Electric and WMECo shall continue to track individual spending over the 2016 through 2018 Three-Year Plan term to determine

[59] NSTAR and WMECo shall allocate joint costs in the following manner: (1) costs that are incurred in an individual company's service territory will be charged directly to that company; (2) joint implementation costs associated with an FTE whose responsibilities fall in one service territory will be allocated to that particular service territory; (3) joint implementation costs associated with an FTE whose responsibilities are spread across the NSTAR Electric and WMECo service territories will be allocated based on the 2014 planned energy efficiency budgets; (4) legal and regulatory fees will be allocated based on the 2014 planned energy efficiency budgets; and (5) other common PP&A costs (e.g., certain IT-related costs) will be allocated based on an even weighting of program budgets and the number of customers in each service territory.

whether the allocation factors are appropriate (see Tr. 6, at 447-448). The Department will investigate the allocation of actual costs amongst the two service territories during our review of the NSTAR Electric - WMECo term report.

c. Low-Income Budgets

In 2013-2015 Three Year Plans Order, at 138, the Department directed NSTAR Electric and WMECo to meet the ten percent low-income spending requirements of G.L. c. 25, § 19(c) on an individual, company-specific basis to ensure that low-income customers in both companies' service territories are not underserved. In the current plan, NSTAR Electric and WMECo propose to meet the ten percent low-income spending obligation on an aggregated basis (Exh. DPU-Eversource-Electric 2-4).

Disaggregated, NSTAR Electric projects that it will not spend ten percent of its budget on low-income programs during plan years 2017 and 2018 (Exh. DPU-Eversource-Electric 2-4). NSTAR Electric maintains that it has identified all cost-effective energy efficiency in its Three-Year Plan and that additional low-income spending in its service territory during this period would not result in additional savings (Tr. 6, at 472-473). No other party contests this assertion.

To ensure that low-income customers in all service territories are adequately served, it would be preferable for both NSTAR Electric and WMECo to meet the low-income spending requirements of G.L. c. 25, § 19(c) in each service territory. Additional spending, however, should be reasonably designed to produce additional savings, and the Department gives significant weight to the fact that NSTAR Electric's and WMECo's proposal to meet the low-income spending requirements of G.L. c. 25, § 19(c) on an aggregated basis was not opposed by intervenors representing low-income consumers. For these reasons, the Department

approves NSTAR Electric's and WMECo's proposal to meet their ten percent low-income spending obligation in the aggregate. Nonetheless, the Department fully expects that NSTAR Electric and WMECo will work closely with LEAN and their lead vendor, to ensure that all cost-effective savings in the low-income sector are achieved, and may seek further information regarding NSTAR Electric's efforts to achieve the ten percent threshold on an individual basis if facts and circumstances so warrant. The Department is mindful of, and seeks to avoid, any issues of cross-subsidization, underfunding, or possible underperformance in one service territory compared with the other.

d. Performance Incentive Mechanism

In 2013-2015 Three Year Plans Order, at 140-141, the Department directed NSTAR Electric and WMECo to calculate and report performance incentives on an individual company basis in order to avoid the potential for cross-subsidization between the two companies. In the instant proceeding, NSTAR Electric and WMECo propose to implement a combined performance incentive (Exh. Eversource Electric-2, at 87). Performance incentive costs, however, will be allocated to the customers of each company based on the service territory where the benefits accrue (Exh. DPU-Eversource-Electric 2-5).

After review, the Department approves NSTAR Electric's and WMECo's proposal to implement a joint performance incentive. The Department remains concerned that a joint performance incentive could result in cross-subsidization and underperformance in one service territory compared with the other. Therefore, the Department will examine NSTAR Electric's and WMECo's individual performance during the 2013 through 2015 and 2016 through 2018

term report proceedings to determine if any changes to the joint performance incentive model are warranted.[60]

e. Conclusion

The Department fully supports and encourages all efforts by the Program Administrators to maximize the acquisition of all available cost-effective energy efficiency resources while minimizing implementation costs. G.L. c. 25, § 19. The Department finds that an aggregated energy efficiency plan for NSTAR Electric and WMECo may create opportunities for savings, with no negative impact on costs. Further, the continued reporting of the BCR screening model by each individual company will allow the Department to evaluate performance within each service territory to ensure that each company's customers are not being underserved. For these reasons, we approve the request of NSTAR Electric and WMECo to implement an integrated Three-Year Plan and will permit the filing of consolidated plan year and term reports starting with the 2016 through 2018 term.

F. National Grid - Nantucket Non-Wires Alternative

1. Introduction

As part of its Three-Year Plan, National Grid (electric) seeks approval of the energy efficiency component of a larger proposed non-wires alternative project,[61] to be conducted in its

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60 As discussed above, NSTAR Electric and WMECo will continue to file separate BCR screening models (Tr. 6, at 467-468).

61 A non-wires alternative is generally defined as any geo-targeted action or strategy that could help to defer or eliminate the need to construct or upgrade a transmission system and distribution substations. Non-wires alternative efforts may include, but are not limited to, energy efficiency, demand response, dynamic pricing, distributed generation, energy storage, and volt-VAR optimization. U.S. Department of Energy, Electric Advisory Committee, Recommendations on Non-Wires Solutions, October 17, 2012.

Nantucket Electric service territory (Statewide Plan, Exh. 1, App. L—Part 3, at 3).[62] National Grid (electric) seeks approval of a $2.6 million budget for these energy efficiency measures over the three-year term (Exh. DPU-Grid-Electric 4-3).

2. National Grid (electric) Proposal

National Grid (electric) states that it began implementing its non-wires alternative project on Nantucket in 2015 in order to reduce approximately five megawatts ("MW") of load on the island by the end of 2019 (Statewide Plan, Exh.1, at 202). National Grid (electric) states that the ultimate goal of the project is to defer a total of 18 MW of load over 17 years to postpone the need for an investment in a third undersea cable by ten years (Statewide Plan, Exh. 1, at 202). National Grid (electric) states that in addition to geo-targeted energy efficiency, the non-wires alternative project will use other technologies, such as renewable energy, energy storage, demand response, and possibly time varying rates, to achieve load reductions during peak hours (Statewide Plan, Exh. 1, at 202).

National Grid (electric) proposes to include the energy efficiency component of the non-wires alternative project, which it describes as a targeted energy efficiency community initiative, as part of its 2016 through 2018 Three-Year Plan (Exh. DPU-Grid-Electric 4-3). National Grid (electric) states that its proposed energy efficiency community initiative will involve: (1) a partnership with the Town of Nantucket's Energy Office; (2) the provision of enhanced incentives for certain energy efficiency measures with the potential to reduce peak load

62 On January 11, 2016, after it filed its Three-Year Plan and after it began implementation of the project, National Grid (electric) filed a petition seeking approval of the larger Nantucket non-wires alternative project. Petition of Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid for Approval of Non-Wires Alternative Project, D.P.U. 16-06.

for residential, low-income, and C&I customers; and (3) the implementation of specific strategies to meet the needs of these homeowners and businesses (Statewide Plan, Exh. 1, at 202; Exh. DPU-Grid-Electric 4-7).

The proposed budget for the energy efficiency component of the Nantucket non-wires alternative project is $2.6 million over the Three-Year Plan term (Exh. DPU-Grid-Electric 4-3). National Grid (electric) proposes to include the costs associated with the energy efficiency component of the Nantucket non-wires alternative project in the residential, low-income, and C&I program budgets of its 2016 through 2018 Three-Year Plan (Exhs. DPU-Grid-Electric 4-3, DPU-Grid-Electric 4-4; Tr. 5, at 409, 414).

3. Positions of the Parties

a. National Grid (electric)

National Grid (electric) argues that the energy efficiency efforts it proposes to deploy on Nantucket as part of the non-wires alternative project are cost-effective and should be approved (Program Administrator Brief at 61, citing Exh. DPU-Grid-Electric 4-7). National Grid (electric) maintains that it has included the funding and expected results of these anticipated energy efficiency investments on Nantucket in its plan budgets, goals, and assessment of program cost-effectiveness (Program Administrator Brief at 61, citing Tr. 5, at 414, 423; Exh. DPU-Grid-Electric 4-7).

In addition, National Grid (electric) argues that it is appropriate to recover the costs associated the non-wires alternative energy efficiency efforts through the EES, consistent with Department Guidelines and the Green Communities Act (Program Administrator Brief at 61-62, citing Exhs. DPU-Grid-Electric 4-2; DPU-Grid-Electric 4-3). National Grid (electric) asserts

that it is not proposing to recover costs beyond those included in its Three-Year Plan through the EES (Program Administrator Brief at 61-62).

b. Acadia Center

Acadia urges the Department to approve National Grid (electric)'s Three-Year Plan as proposed, including the geo-targeted, enhanced energy efficiency incentives on Nantucket, as a means to achieve all cost-effective energy efficiency (Acadia Brief at 11). In particular, Acadia asserts that National Grid (electric)'s proposed enhanced incentives for energy efficiency efforts on Nantucket meet the threshold of cost-effectiveness (Acadia Brief at 11).

c. Mass Energy

Mass Energy supports the Council's commitment to explore cost-effective demand reduction/peak reduction electric and gas initiatives in the Three-Year Plans, including National Grid (electric)'s proposal to use energy efficiency programs to help defer construction of a third undersea cable to Nantucket (Mass Energy Brief at 2, citing Statewide Plan, Exh. 1, at 200, 274-275; Mass Energy Reply Brief at 5). Further, Mass Energy asserts that using energy efficiency and demand response to defer additional investment in infrastructure and capacity is appropriate under the Green Communities Act (Mass Energy Reply Brief at 5). Accordingly, Mass Energy argues that that the Department should approve the energy efficiency component of National Grid (electric)'s non-wires alternative on Nantucket (Mass Energy Reply Brief at 5).

4. Analysis and Findings

Over the Three-Year Plan term, the Program Administrators state that they intend to explore whether targeted investments in energy efficiency in specific geographic locations can yield benefits to customers and the electric system, particularly in regions that are subject to gas

constraints,[63] or whether such investments yield benefits as a strategy to help defer the need for further future infrastructure investments (Statewide Plan, Exh. 1, at 202). In particular, the Program Administrators state that they will review energy efficiency geo-targeting strategies and may deploy geo-targeting demonstration projects during the 2016 through 2018 term (Statewide Plan, Exh. 1, at 202).[64] The Program Administrators recognize that while energy efficiency alone will not solve capacity issues, geo-targeted energy efficiency projects have the potential to yield benefits, such as alleviating congestion on the electric grid or deferring the need for transmission and distribution infrastructure investments (Statewide Plan, Exh. 1, at 202).

National Grid (electric) proposes to include geo-targeted energy efficiency in its Three-Year Plan as part of its larger Nantucket Electric service territory non-wires alternative project (Statewide Plan, Exh. 1, App. L—Part 3). National Grid (electric) has previously offered other community-targeted energy efficiency initiatives with enhanced incentives in Boston, Lowell, Adams, and Brockton through the Renew Boston and Efficient Neighborhoods+ initiatives (Exh. DPU-Grid-Electric 4-4; Tr. 5, at 413). National Grid (electric) states that it intends to apply its experience with Efficient Neighborhoods+ to the Nantucket initiative, monitor customer response to the offerings, and, if possible, reduce the incentives to keep costs down (Tr. 5, at 430).

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63 For example, Berkshire and Columbia state that they have been reviewing this approach given capacity constraints in specific areas of their service territories (Statewide Plan, Exh. 1, at 202).

64 To the extent that the Program Administrators propose to deploy such demonstration projects during the 2016 through 2018 term, they should be prepared to discuss the process and criteria for screening and identifying suitable areas for geo-targeted energy efficiency.

No party objected to National Grid (electric)'s proposal. National Grid (electric) has demonstrated that its proposed energy efficiency programs, inclusive of the costs and benefits of the non-wires alternative proposal, are cost-effective (Exhs. NG-Electric-4 (Rev.) (December 21, 2015); DPU-Grid-Electric 4-4). Accordingly, the Department preliminarily approves the energy efficiency component of National Grid (electric)'s Nantucket non-wires alternative project and associated budget, as filed. The Department will, however, consider National Grid (electric)'s overall proposed Nantucket non-wires alternative project, including the appropriate ratemaking treatment of all project costs (including energy efficiency costs), in the ongoing D.P.U. 16-06 proceeding.[65] Should the Department's findings in that proceeding result in any amendments to these findings for the energy efficiency component approved in this Order, the Department anticipates that National Grid (electric) will incorporate those directives into its program method and account for those changes in future energy efficiency report filings, as necessary.

G. Demand Response

1. Introduction

The Green Communities Act requires the 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). Further, an energy efficiency plan may include demand response programs. G.L. c. 25,

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65 For example, the Department will consider as part of D.P.U. 16-06 whether it is appropriate to establish a separate Nantucket Electric EES to recover non-wires alternative-related energy efficiency costs.

§ 21(b)(2). The Council has identified demand response as a priority for the 2016 through 2018 term (Statewide Plan, Exh. 1, App. D, at 2).

Historically, the Program Administrators have not included electric or gas demand response resources in their three-year plans; instead they have relied on traditional energy efficiency investments to provide demand reductions (Statewide Plan, Exh. 1, at 200-201). The Program Administrators are in the early stages of developing new electric demand response strategies and state that they will be evaluating the costs and benefits of possible demand response offerings through their participation in a demand savings group (Statewide Plan, Exh. 1, App. D, at 2; Tr. 3, at 347-348).[66] The Program Administrators indicate that they will use the results of the demonstration offerings in conjunction with other research efforts to inform and support future electric demand response offerings (Statewide Plan, Exh. 1, at 200-202). In addition, the Program Administrators state that they will evaluate the possibility for gas demand response programs in the demand savings group (Statewide Plan, Exh. 1, App. D, at 2).

The Compact and National Grid (electric) propose specific demand response demonstration projects in their Three-Year Plans to evaluate program delivery strategies, including costs and benefits (Statewide Plan, Exh. 1, App. L, Part 1, at 6-10, Part 3, at 3-7). In addition, as a component of their demonstration programs, the Compact and National Grid (electric) propose to explore the promotion of electric vehicle charging during off-peak times as a demand response strategy (Statewide Plan, Exh. 1, App. L, Part 1, at 10, Part 3, at 6).

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66 The demand savings group will evaluate the opportunities and strategies for electric and gas demand reduction initiatives. Along with the Program Administrators, the group includes DOER, the Attorney General, LEAN, Council consultants, and other stakeholders (Statewide Plan, Exh. 1, App. D at 2).

2. Program Administrators' Proposals

a. Cape Light Compact

The Compact seeks Department approval of an $803,392 budget for its proposed demand response offering over the 2016 through 2018 term (Statewide Plan, Exh. 1, App. L, Part 1, at 10). The Compact proposes to offer a residential and small commercial demand response offering centered on a "connected home" and "connected business" platform (Statewide Plan, Exh. 1, App. L, Part 1, at 6). The Compact states that this effort will involve the installation of devices on residential and small commercial electric meters to allow customers to access real-time electric usage data (Statewide Plan, Exh. 1, App. L, Part 1, at 6). The Compact states that, initially, it will offer Wi-Fi thermostats to customers with central air conditioning and electric heating (Statewide Plan, Exh. 1, App. L, Part 1, at 6-7). The Compact intends to hold seven to ten demand response events each year during the 2016 through 2018 term and pay an incentive for successful customer participation (Statewide Plan, Exh. 1, App. L, Part 1, at 6-7). The Compact states that it intends to extend the offering to other smart appliances such as dishwashers, washing machines, and other demand response enabled technologies such as pool pumps, heat pump water heaters, and electric vehicle charging stations (Statewide Plan, Exh. 1, App. L, Part 1, at 7). The Compact states that it will promote its demand response offering through its existing community outreach efforts (Statewide Plan, Exh. 1, App. L, Part 1, at 6-7).

b. National Grid (electric)

National Grid (electric) seeks Department approval of a $30,438,566 budget for its proposed demand response offering over the 2016 through 2018 term (Statewide Plan, Exh. 1, App. L, Part 3, at 6). As a result of its demand response offering, National Grid (electric)

estimates an expected demand savings of 2.6 MW from residential customers, and 0.3 MW from commercial customers in 2016, increasing to 11.0 MW and 41.0 MW in 2017 and 2018, respectively.

As a part of its C&I effort, National Grid (electric) proposes to deploy direct load control and customer initiated interruptible load demand response in 2016, and expand its activity in 2017 and 2018, based on the 2016 results (Statewide Plan, Exh. 1, App. L, Part 3, at 3). For small C&I customers without interval meters, National Grid (electric) states that it will initially provide incentives for direct load control demand response technologies (e.g., Wi-Fi thermostats and connected washers and dryers). National Grid (electric) proposes to expand its offerings to electric water heaters, heat pump water heaters, dishwashers, pool pumps, and electric vehicle charging stations in 2017 and 2018 (Statewide Plan, Exh. 1, App. L, Part 3, at 4-5). For its large C&I customers with interval meters, National Grid (electric) proposes to identify customer-specific load curtailment strategies, using its energy efficiency assessments to identify opportunities and provide possible incentives (Statewide Plan, Exh. 1, App. L, Part 3, at 4).

For residential customers in 2016, National Grid (electric) intends to deploy Wi-Fi thermostats, connected washers and dryers, and smart window air conditioning (Statewide Plan, Exh. 1, App. L, Part 3, at 4). In 2017 and 2018, National Grid (electric) plans to explore the deployment of connected electric water heaters, heat pump water heaters, dishwashers, pool pumps, and electric vehicle charging stations (Statewide Plan, Exh. 1, App. L, Part 3, at 4-5).

c. NSTAR Electric - WMECo

NSTAR Electric and WMECo propose to investigate demand reduction opportunities and the research and customer engagement required to properly implement demand reductions

(Statewide Plan, Exh. 1, App. L, Part 2, at 1). NSTAR Electric and WMECo state that they have engaged consultants to evaluate technologies that might alleviate peak coincident customer demand (Statewide Plan, Exh. 1, App. L, Part 2, at 1). NSTAR Electric and WMECo do not seek Department approval of a specific budget for a demand response offering over the 2016 through 2018 term (Statewide Plan, Exh. 1, App. L, Part 2, at 1-2).

d. Unitil (electric)

Unitil (electric) states that it plans to participate in the demand savings group and proposes to defer consideration of a demand response plan until the group publishes its findings. Unitil (electric) states that, based on the findings of the report, it will determine the appropriate demand response strategy for its service territory (Exh. DPU-Unitil-Electric 3-1). Unitil (electric) does not seek Department approval of a specific budget for a demand response offering over the 2016 through 2018 term (Exh. DPU-Unitil-Electric 3-1).

3. Positions of the Parties

a. Program Administrators

The Program Administrators assert that they are committed to demand response efforts and achieving demand savings during the 2016 through 2018 term (Program Administrator Brief at 23). The Program Administrators argue that demand response may reduce prices and price volatility for consumers, avoid or defer future generation, transmission, and distribution investments, reduce environmental impacts from electric generation, and aid the integration of renewable sources on the electric system (Program Administrator Brief at 23). The Program Administrators maintain that their proposed demand response efforts are appropriate because the Green Communities Act provides for an energy efficiency plan to acquire all available demand

reduction resources that are cost-effective or less expensive than supply (Program Administrator Brief at 23).

The Program Administrators argue that demand savings are a core element of the Statewide Plan, with 570 MW planned annual summer capacity savings and 618 MW planned annual winter capacity savings (Program Administrator Reply Brief at 6-7). The Program Administrators assert that they are also examining the additional benefits of energy efficiency and demand response programs during super-peak periods, which they maintain is essential in determining whether new demand response strategies will be cost-effective in Massachusetts (Program Administrator Reply Brief at 7). The Program Administrators assert that they will review relevant research and work to address challenges associated with implementing and identifying demand response program savings through the demand savings group (Program Administrator Reply Brief at 7). The Program Administrators anticipate that this effort will yield additional demand response initiatives during the 2016 through 2018 term (Program Administrator Reply Brief at 7).[67]

With respect to the Compact and National Grid (electric) demonstration project proposals, the Program Administrators maintain that if the demonstration projects are cost-effective, National Grid (electric) and the Compact will consider implementing these efforts as programs in the current or next three-year term (Program Administrator Brief at 25). Finally, the Program Administrators argue that the Compact and National Grid (electric) electric vehicle

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[67] Specifically, if a Program Administrator determines that a demand response program would be cost-effective in the 2016 through 2018 term, the Program Administrators assert that they may seek Council support and then Department approval to add the program to their energy efficiency portfolio (Program Administrator Reply Brief at 8).

charging proposals are appropriate demonstration projects because they are intended to enable demand response by encouraging customers to charge electric vehicles in the off-peak period (Program Administrator Brief at 25).

b. Conservation Law Foundation

CLF argues that, despite the Program Administrators acknowledgement of the benefits of demand response in contributing to the Commonwealth's economic and environmental sustainability goals, the Program Administrators did not include any concrete or measurable goals, timelines, benchmarks, or performance metrics in the Statewide Plan (CLF Brief at 11). CLF argues that the failure to establish these specific targets fails to comply with the Green Communities Act (CLF Brief at 11). Therefore, CLF asserts that the Department should require the Program Administrators to incorporate measureable demand response requirements in the Statewide Plan (CLF Brief at 11).

c. Mass Energy

Mass Energy asserts that there is a clear need for demand response to meet global warming goals (Mass Energy Brief at 3-4). Specifically, Mass Energy argues that the region's poor generation fleet load factor imposes costs on consumers, drives up capacity costs, threatens reliability, exacerbates environmental and climate degradation, and skews energy markets (Mass Energy Brief at 12-13). Mass Energy asserts that, despite the use of demand response to address these issues in other jurisdictions, this has not occurred in Massachusetts (Mass Energy Brief at 14).

Although Mass Energy maintains that the Green Communities Act contemplates the inclusion of demand response programs as part of the Three-Year Plans and the Statewide Plan

prioritizes demand and peak reduction efforts, it argues that the Program Administrators have only included traditional energy efficiency investments in the Three-Year Plans (Mass Energy Brief at 3-4). Further, Mass Energy contends that the Three-Year Plans do not require any action on demand response, nor do they set any clearly defined demand response goals, timelines, benchmarks, or metrics (Mass Energy Brief at 2). Accordingly, Mass Energy argues that the Department should revise the Three-Year Plans to establish goals, benchmark deadlines, and performance metrics for demand response programs (Mass Energy Brief at 20).

Finally, Mass Energy argues that the Program Administrators' efforts to study demand response may be redundant of other analyses of demand response costs and benefits (Mass Energy Brief at 16-17). Instead, Mass Energy asserts that the Department should require the Program Administrators to use existing studies to support the cost-effectiveness of electric demand response programs (Mass Energy Brief at 16-18).

d. Acadia Center

Acadia argues that the Department should require more consistency across the Program Administrators' demand response offerings (Acadia Reply Brief at 5-6). In particular, Acadia maintains that the Department should require the Program Administrators to implement demand response pilot programs in order to inform future planning (Acadia Reply Brief at 5-6). Finally, Acadia argues that demand response pilot programs focused on the winter combined electric-gas peak would provide valuable information (Acadia Reply Brief at 5-6).

4. Analysis and Findings

The parties to these proceedings generally agree on the potential benefits of demand response including its ability to mitigate peak demand, lower cost to consumers, and improve the

environment (Statewide Plan, Exh. 1, at 201, App. L, Part 1, at 6-9, Part 3, at 2-5; Exh. DPU-Comm 2-38 (National Grid (electric)) (Rev.) (November 20, 2015); Tr. 3, at 348-351). The Program Administrators are in the early stages of developing new demand response strategies and, in that regard, intend to participate in the demand savings group (Statewide Plan, Exh. 1, App. D, at 2). The demand savings group will submit a report to the Council setting forth the scope, tasks, and detailed timelines for the group by the end of the first quarter of 2016 (Statewide Plan, Exh. 1, App. D, at 2). In addition, as described above, National Grid (electric) and the Compact propose specific demand response demonstration projects as part of their Three-Year Plans (Statewide Plan, Exh. 1, App. L, Part 1, at 6-10, Part 3, at 3-7). Given the evolving nature of demand response offerings in the context of energy efficiency programs, the Department finds that this approach to developing demand response energy efficiency offerings is appropriate.

CLF and Mass Energy note that the Program Administrators did not include goals, timelines, benchmarks, or performance metrics related to demand response in their Three-Year Plans (CLF Brief at 11; Mass Energy Brief at 2). Demand response represents a new initiative in the Program Administrators' energy efficiency offerings and, as such, the Department finds that is reasonable for the Program Administrators to be at different levels in their respective demand response program development. As the Program Administrators' demand response planning and program efforts evolve, the Department expects that the Program Administrators will implement cost-effective programs and develop targets and benchmarks related to demand response. The record in these proceedings does not, however, support the imposition of specific targets, goals, timelines, or benchmarks at this time.

Acadia argues that the Department should mandate demand response offerings in each service territory and require more consistency between Program Administrators' offerings (Acadia Reply Brief at 5-6). The Program Administrators' service territories have distinct demographic and other differences that do not support the implementation of identical programs for each Program Administrator. The Department does, however, expect the Program Administrators to examine different demand response opportunities and delivery models during the initial phases of these offerings in order to identify cost-effective programs and best practices to support the deployment of demand response programs at scale.

The Department notes that there is a lack of detail in the Statewide Plan regarding specific actions for the 2016 through 2018 term. Instead, the Statewide Plan identifies demand response and demand reduction initiatives as a beneficial resource and defers the future development of most Program Administrator-specific offerings to the demand savings group (Statewide Plan, Exh. 1, at 199-201). Further, National Grid (electric) and the Compact provide only high-level descriptions of their demand response proposals, with few program design specifics (Statewide Plan, Exh. 1, App. L, Part 1, at 6-10, Part 3, at 3-7). As discussed above, the Department recognizes the developing nature of demand response offerings in the context of energy efficiency plans and that National Grid (electric)'s and the Compact's proposed demand response offerings are demonstration projects. Nonetheless, the Department expects that all future demand response offerings, including demonstration projects, will be fully supported by, among other things, detailed program descriptions.

The Department expects that all the Program Administrators will evaluate the demonstration projects and begin implementing cost-effective demand response offerings at the

earliest appropriate time. In this regard, Mass Energy suggests that the Department require the Program Administrators to use existing studies to support the cost-effectiveness of electric demand response programs (Mass Energy Brief at 16-18). The Program Administrators acknowledge the evaluation studies conducted by other entities, but maintain that the demand savings group is the appropriate venue to review the relevant research and work to address issues associated with implementing and claiming savings from demand response programs (Program Administrator Reply Brief at 7).

The evidence in these proceedings does not support the adoption of Mass Energy's proposed proxy benefit-cost ratio and, accordingly, we will not mandate its use here. Instead, the Program Administrators shall use the process described above to determine the appropriate costs and benefits for their program offerings through evaluations tailored to the Massachusetts energy efficiency programs (Exhs. DPU-NG-Electric 2-3; DPU-Compact 1-1). More specifically, as discussed above, the Department finds that the demand savings group is a suitable venue for the Program Administrators and other stakeholders to collaborate on strategies, evaluate existing offerings, and develop appropriate demand response program offerings. Demand response is in use as a mature demand reduction strategy in other areas across the United States. The Program Administrators and the demand savings group should rely on existing information, to the extent appropriate, to assist them in their own evaluations of the opportunities for demand response as a resource in Massachusetts (Exh. DPU-Comm 2-38 (National Grid (electric)) (Rev.) (November 20, 2015)).

Finally, both the Compact and National Grid (electric) identify electric vehicle efforts as a part of their proposed demand response demonstration programs (Statewide Plan, Exh. 1,

App. L, Part 1, at 7, Part 3, at 7; Tr. 3, at 358-360). As electric vehicle use increases, the Department recognizes the potential for benefits associated with reducing any related increase in peak load. However, neither the Compact nor National Grid (electric) has demonstrated that their proposals to provide incentives related to electric vehicle charging stations are appropriate as a part of their energy efficiency efforts.[68] Accordingly, the Department does not approve the Compact's and National Grid (electric)'s proposals to provide such incentives as part of their energy efficiency offerings.

5. Conclusion

For the reasons discussed above, the Department approves the Program Administrators' proposal to evaluate demand response opportunities, strategies, benefits, and costs through the demand savings group. In addition, with the exception of the proposed incentives for electric vehicle charging stations, the Department approves the Compact's and National Grid (electric)'s individual demand response demonstration proposals and associated budgets.

On or before March 31, 2016, the Program Administrators shall provide the Department with a copy of the forthcoming report that sets the specific scope, tasks, and detailed timelines for the demand savings group (see Statewide Plan, Exh. 1, App. D at 2). In addition, as they become available, the Program Administrators shall submit to the Department for information purposes, copies of any findings and reports from the demand savings group. Finally, as part of each plan year report for the 2016 through 2018 term, the Program Administrators shall include a

[68] Any electric vehicle efforts must be consistent with the Department's findings in Electric Vehicles, D.P.U. 13-182-A (2014). Further, at a minimum, any proposal to include electric vehicle charging in energy efficiency programs, including any proposed customer incentives, must be exclusively for enabling demand response functionality in electric vehicle charging.

detailed description of the results of all demonstration offerings, including costs, benefits, challenges, and the potential for future program offerings.

H. Energy Efficiency Database

1. Introduction

In 2013-2015 Three-Year Plans Order, at 60, the Department approved a budget for the development of a statewide energy efficiency database. On December 1, 2014, the Department issued an Order providing guidance on the data inputs that should be included in the database. Response of the Department of Public Utilities to Data Privacy and Data Security Issues Related to the Statewide Energy Efficiency Database, D.P.U. 14-141, at 1-2 (2014). On December 22, 2014, the Program Administrators filed a motion for reconsideration regarding certain aspects of the Department's Order in D.PU. 14-141. As of the date of this Order, that motion is still pending before the Department.

In 2014, the Program Administrators jointly developed a statewide energy efficiency database, known as Mass Save Data (Statewide Plan, Exh. 1, at 289). Mass Save Data contains quantitative data, including information related to participants, expenditures, annual and lifetime savings, electric capacity savings, and benefits (Statewide Plan, Exh. 1, at 289, 290-291).

In the instant proceedings, the Program Administrators seek the Department's recognition of Mass Save Data as a comprehensive statewide energy efficiency database (Exh. DPU-Comm 9-2). The Program Administrators include proposed funding (i.e., $1.5 million for the three-year term) to maintain and host Mass Save Data as currently constructed and to develop enhancements to the database (Statewide Plan, Exh. 1, at 293; Exh. DPU-Comm 9-5). The proposed enhancements include: (1) adding measure level data; and

(2) providing geographic information with appropriate aggregation to protect customer privacy (Statewide Plan, Exh. 1, at 293).

Further, the Program Administrators propose to work with stakeholders to identify additional data to include in Mass Save Data (Statewide Plan, Exh. 1, at 292; Exh. DPU-Comm 9-1). Before including new categories of data in Mass Save Data, the Program Administrators propose that the proponent of the data be required to demonstrate: (1) the purpose of the data; and (2) that the benefits of including the data in the database justify the costs (Exh. DPU-Comm 9-1). If there are disagreements regarding what data to include in Mass Save Data, the Program Administrators propose that the Department would determine whether the data is appropriate for inclusion (Exh. DPU-Comm 9-1).

2. Positions of the Parties

a. Program Administrators

The Program Administrators contend that Mass Save Data appropriately balances the purpose and benefits of the data inputs with cost and customer privacy considerations (Program Administrator Reply Brief at 11-12). The Program Administrators claim that they have budgeted a reasonable amount of money for database development and maintenance in 2016 through 2018 (Program Administrator Reply Brief at 12). The Program Administrators argue that Mass Save Data is scalable and, with the data now available and planned for Mass Save Data, there is no need to build an additional database. The Program Administrators contend that an additional database would be costly and not result in any additional cost-effective savings opportunities (Program Administrator Reply Brief at 12, 15).

In response to arguments raised by GJC that a different database is needed for stakeholders to assess whether energy efficiency investments are being spent effectively, the Program Administrators argue that stakeholders can make this assessment now given the data currently available in Mass Sava Data (Program Administrator Reply Brief at 14).

In response to an assertion by DOER that the use of different measure names in the TRM and Mass Save Data is a shortcoming, the Program Administrators note that the measure names in Mass Save Data match those in the BCR screening model (Program Administrator Reply Brief at 15). The Program Administrators argue that naming differences between the TRM and Mass Save Data are due to the different purposes of the two databases and are not a shortcoming of Mass Save Data (Program Administrator Reply Brief at 15).

b. Attorney General

The Attorney General argues that improvements and expansions to Mass Save Data are unlikely to fully resolve the issues articulated by the Department in D.P.U. 14-141 (Attorney General Brief at 14). The Attorney General is concerned that efforts by the Program Administrators to develop Mass Save Data will obscure any non-compliance with the Department's directives in D.P.U. 14-141 (Attorney General Brief at 14).

c. Department of Energy Resources

DOER argues that the Department should not recognize Mass Save Data as the statewide database in the instant proceedings and, instead, should continue to investigate the need for greater data transparency and reporting in D.P.U. 14-141 (DOER Brief at 14-15). In addition, DOER contends that measure-level names in Mass Save Data do not match the TRM and that the Department should further explore this issue (DOER Brief at 14-15).

d. Acadia Center

Acadia argues that the Department should reject the Program Administrators' request to find that Mass Save Data is a comprehensive statewide database in these proceedings and, instead, consider the need for greater data transparency in D.P.U. 14-141 (Acadia Reply Brief at 6).

e. Green Justice Coalition

GJC states that it is important for stakeholders to have access to granular program data to ensure that energy efficiency investments are spent effectively (GJC Brief at 5). GJC supports the improvements that the Program Administrators propose to make to Mass Save Data (e.g., including geographic data). GJC contends, however, that the Department should continue to investigate all stakeholder data requirements in D.P.U. 14-141 (GJC Brief at 5-6).

f. The Energy Consortium/Western Massachusetts Industrial Group

TEC and WMIG argue that the Program Administrators must improve data reporting regarding the reach and success of installed energy efficiency measures (TEC/WMIG Reply Brief at 5-6). TEC and WMIG contend that Mass Save Data does not provide data with sufficient granularity to allow C&I customers to understand energy efficiency program spending (TEC/WMIG Reply Brief at 6). Accordingly, TEC and WMIG argue that the Department should not approve Mass Save Data in the instant proceedings as an alternative to a statewide database (TEC/WMIG Reply Brief at 6).

3. Analysis and Findings

The Program Administrators' 2016 through 2018 Three-Year Plans include a proposed budget to maintain and enhance the Mass Save Data database, including the addition of measure-

level and geographic data (Statewide Plan, Exh. 1, at 293). In addition to approving the budget, the Program Administrators request that the Department recognize Mass Save Data as a comprehensive statewide database (Exh. DPU-Comm 9-2). Conversely, the Attorney General, DOER, GJC, Acadia, and TEC and WMIG request that the Department not approve the Program Administrators' request to find that Mass Save Data is the comprehensive statewide database and, instead, address this issue in D.P.U. 14-141 (Attorney General Brief at 14-15; DOER Brief at 14-15; Acadia Reply Brief at 6; GJC Brief at 5-6; TEC/WMIG Reply Brief at 6).

In D.P.U. 14-141, at 4-5, the Department found that the development of a robust energy efficiency database can facilitate the Department and the Council in performing their statutory roles regarding the energy efficiency programs. The Department found that it was necessary to balance the granularity of data contained in the database with customer privacy, data security, and cost issues. D.P.U. 14-141, at 4-5. We further recognized that the issues related to privacy of energy efficiency-related data are interrelated with privacy issues in other contexts. D.P.U. 14-141, at 5. Given the scope and importance of these issues, the Department directed the Program Administrators to build an energy efficiency database for use during the 2016 through 2018 three-year term as an interim step, followed by a comprehensive investigation of the issues. D.P.U. 14-141, at 6-7.

Mass Save Data, in particular with the planned enhancements to include measure-level data and geographic information, will help meet data transparency and accessibility needs while the Department addresses these broader issues currently before it in the D.P.U. 14-141 proceeding (Statewide Plan, Exh. 1, at 293). Accordingly, for the purposes of these dockets, the Department approves the Program Administrators' proposed budgets for the 2016 through 2018

Three-Year Plans to maintain and enhance Mass Save Data. The Program Administrators shall continue to work with stakeholders to identify additional data reporting needs to ensure that energy efficiency program effectiveness is optimized and that energy efficiency programs continue to provide value to customers. We decline at this time to make a finding that Mass Save Data is a comprehensive energy efficiency database. This issue is more appropriately addressed in D.P.U. 14-141.

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.

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 meets 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.

Pursuant to the Green Communities Act, the Three-Year Plans include a proposed mechanism designed to provide an incentive to eligible Program Administrators 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 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 consistent with the Guidelines; and (2) has demonstrated that, based on the projected benefits and costs, all proposed energy efficiency programs are cost-effective.

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. 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 its energy efficiency plan through its EES.

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 2016 through 2018 filed by Bay State Gas Company, d/b/a Columbia Gas of Massachusetts; The Berkshire 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, d/b/a Eversource Energy; Liberty Utilities (New England Natural Gas Company) Corporation d/b/a Liberty Utilities; 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, each d/b/a Eversource Energy are APPROVED, subject to the exceptions and conditions contained herein, and it is

FURTHER ORDERED: That Bay State Gas Company, d/b/a Columbia Gas of Massachusetts; The Berkshire 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, d/b/a Eversource Energy; Liberty Utilities (New England Natural Gas Company) Corporation d/b/a Liberty Utilities; 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, each d/b/a Eversource Energy shall comply with all other directives contained in this Order.

By Order of the Department,

/s/
Angela M. O'Connor, Chairman

/s/
Jolette A. Westbrook, Commissioner

/s/
Robert E. Hayden, Commissioner

XII. APPENDIX: TABLES

Table 1 - Statewide Electric Savings Goals, by Program (Annual MWh)[69]

	2016		2017		2018		2016-2018	
Sector/Program	**MWh**	**%**	**MWh**	**%**	**MWh**	**%**	**MWh**	**%**
Residential								
Residential Whole House	238,578	38%	232,877	40%	227,273	43%	698,728	40%
Residential Products	388,931	62%	351,210	60%	301,786	57%	1,041,926	60%
Residential Total	**627,509**	**100%**	**584,086**	**100%**	**529,059**	**100%**	**1,740,654**	**100%**
Low-Income								
Low-Income Whole House	40,559	100%	39,212	100%	38,201	100%	117,972	100%
Low-Income Total	**40,559**	**100%**	**39,212**	**100%**	**38,201**	**100%**	**117,972**	**100%**
Commercial & Industrial								
C&I New Construction	109,437	16%	113,695	15%	118,989	15%	342,121	15%
C&I Retrofit	595,364	84%	637,072	85%	688,960	85%	1,921,397	85%
C&I Total	**704,801**	**100%**	**750,768**	**100%**	**807,949**	**100%**	**2,263,518**	**100%**
Grand Total								
Residential Total	627,509	46%	584,086	43%	529,059	38%	1,740,654	42%
Low-Income Total	40,559	3%	39,212	3%	38,201	3%	117,972	3%
C&I Total	704,801	51%	750,768	55%	807,949	59%	2,263,518	55%
GRAND TOTAL	**1,372,869**	**100%**	**1,374,066**	**100%**	**1,375,209**	**100%**	**4,122,144**	**100%**

69 Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015).

Table 2 - Statewide Gas Savings, by Program (Annual Therm)[70]

	2016		2017		2018		2016-2018	
Sector/Program	**Therms**	**%**	**Therms**	**%**	**Therms**	**%**	**Therms**	**%**
Residential								
Residential Products	12,498,355	83%	12,535,935	83%	12,812,246	83%	37,846,536	83%
Residential Whole House	2,606,301	17%	2,649,466	17%	2,708,789	17%	7,964,556	17%
Residential Total	**15,104,655**	**100%**	**15,185,401**	**100%**	**15,521,036**	**100%**	**45,811,092**	**100%**
Low-Income								
Low-Income Whole House	2,054,911	100%	2,061,664	100%	2,076,231	100%	6,192,807	100%
Low-Income Total	**2,054,911**	**100%**	**2,061,664**	**100%**	**2,076,231**	**100%**	**6,192,807**	**100%**
Commerical & Industrial								
C&I New Construction	3,825,609	35%	3,884,614	35%	3,877,190	33%	11,587,413	34%
C&I Retrofit	7,109,677	65%	7,372,700	65%	7,735,930	67%	22,218,307	66%
C&I Total	**10,935,286**	**100%**	**11,257,314**	**100%**	**11,613,120**	**100%**	**33,805,720**	**100%**
Grand Total								
Residential Total	15,104,655	54%	15,185,401	53%	15,521,036	53%	45,811,092	53%
Low-Income Total	2,054,911	7%	2,061,664	7%	2,076,231	7%	6,192,807	7%
C&I Total	10,935,286	39%	11,257,314	39%	11,613,120	40%	33,805,720	39%
GRAND TOTAL	**28,094,852**	**100%**	**28,504,379**	**100%**	**29,210,387**	**100%**	**85,809,618**	**100%**

[70] Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015).

Table 3 – Electric Program Administrator Savings Goals, by Sector (Annual MWh)[71]

Program Administrator/ Sector	2016 MWh		2017 MWh		2018 MWh		2016-2018 MWh	
National Grid (electric)								
Residential	344,163	54%	331,603	51%	309,373	48%	985,139	51%
Low-income	20,968	3%	20,608	3%	20,148	3%	61,724	3%
C&I	275,912	43%	298,147	46%	318,380	49%	892,439	46%
Total	**641,043**	**100%**	**650,358**	**100%**	**647,901**	**100%**	**1,939,301**	**100%**
NSTAR Electric - WMECo								
Residential	260,566	39%	231,883	35%	200,828	30%	693,277	35%
Low-income	17,726	3%	16,625	3%	15,897	2%	50,248	3%
C&I	385,791	58%	409,040	62%	443,640	67%	1,238,472	62%
Total	**664,083**	**100%**	**657,549**	**100%**	**660,366**	**100%**	**1,981,998**	**100%**
Compact								
Residential	21,103	35%	18,921	33%	17,211	29%	57,234	33%
Low-income	1,640	3%	1,750	3%	1,925	3%	5,314	3%
C&I	36,732	62%	37,138	64%	39,373	67%	113,244	64%
Total	**59,475**	**100%**	**57,809**	**100%**	**58,509**	**100%**	**175,793**	**100%**
Unitil (electric)								
Residential	1,677	20%	1,679	20%	1,647	20%	5,004	20%
Low-income	226	3%	228	3%	232	3%	686	3%
C&I	6,366	77%	6,442	77%	6,555	78%	19,363	77%
Total	**8,268**	**100%**	**8,350**	**100%**	**8,434**	**100%**	**25,052**	**100%**
Grand Total								
Residential	627,509	46%	584,086	43%	529,059	38%	1,740,654	42%
Low-income	40,559	3%	39,212	3%	38,201	3%	117,972	3%
C&I	**704,801**	51%	**750,768**	55%	**807,949**	59%	**2,263,518**	55%
GRAND TOTAL	**1,372,869**	**100%**	**1,374,066**	**100%**	**1,375,209**	**100%**	**4,122,144**	**100%**

[71] Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015); Exhs. NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015).

Table 4 – Gas Program Administrator Savings Goals, by Sector (Annual Therm)[72]

Program Administrator/ Sector	2016 Therms		2017 Therms		2018 Therms		2016-2018 Therms	
National Grid (gas)								
Residential	9,889,507	61%	10,045,157	60%	10,305,126	60%	30,239,790	60%
Low-income	1,268,355	8%	1,268,355	8%	1,268,355	7%	3,805,066	8%
C&I	5,185,344	32%	5,413,816	32%	5,677,659	33%	16,276,819	32%
Total	**16,343,206**	**100%**	**16,727,328**	**100%**	**17,251,140**	**100%**	**50,321,675**	**100%**
NSTAR Gas								
Residential	2,802,507	43%	2,754,727	42%	2,777,038	42%	8,334,272	42%
Low-income	337,089	5%	346,677	5%	360,868	5%	1,044,634	5%
C&I	3,353,456	52%	3,421,915	52%	3,494,342	53%	10,269,713	52%
Total	**6,493,052**	**100%**	**6,523,319**	**100%**	**6,632,248**	**100%**	**19,648,619**	**100%**
Berkshire								
Residential	273,178	48%	240,818	45%	244,795	45%	758,792	46%
Low-income	37,658	7%	37,658	7%	37,658	7%	112,975	7%
C&I	253,104	45%	254,391	48%	255,696	48%	763,191	47%
Total	**563,940**	**100%**	**532,867**	**100%**	**538,149**	**100%**	**1,634,958**	**100%**
Columbia								
Residential	1,908,612	46%	1,915,879	46%	1,956,638	46%	5,781,129	46%
Low-income	356,228	9%	352,557	8%	352,557	8%	1,061,343	8%
C&I	1,876,083	45%	1,883,361	45%	1,899,078	45%	5,658,522	45%
Total	**4,140,923**	**100%**	**4,151,797**	**100%**	**4,208,273**	**100%**	**12,500,994**	**100%**
Liberty								
Residential	163,238	48%	162,085	46%	166,738	47%	492,061	47%
Low-income	33,820	10%	33,820	10%	33,774	10%	101,414	10%
C&I	141,166	42%	153,450	44%	154,769	44%	449,385	43%
Total	**338,224**	**100%**	**349,355**	**100%**	**355,281**	**100%**	**1,042,860**	**100%**
Unitil (gas)								
Residential	67,613	31%	66,735	30%	70,700	31%	205,048	31%
Low-income	21,760	10%	22,596	10%	23,019	10%	67,375	10%
C&I	126,134	59%	130,381	59%	131,575	58%	388,090	59%
Total	**215,507**	**100%**	**219,712**	**100%**	**225,294**	**100%**	**660,513**	**100%**
Grand Total								
Residential	15,104,655	54%	15,185,401	53%	15,521,035	53%	45,811,092	53%
Low-income	2,054,910	7%	2,061,663	7%	2,076,231	7%	6,192,807	7%
C&I	10,935,287	39%	11,257,314	39%	11,613,119	40%	33,805,720	39%
GRAND TOTAL	**28,094,852**	**100%**	**28,504,378**	**100%**	**29,210,385**	**100%**	**85,809,619**	**100%**

[72] Exhs. NG-Gas-4 (Rev.) (December 21, 2015); Eversource-Gas-4 (Rev.) (December 21, 2015); Berkshire-4 (Rev.) (December 21, 2015); Columbia-4 (Rev.) (December 21, 2015); LU-4 (Rev.) (December 21, 2015); FGE-Gas-4 (Rev.) (December 21, 2015).

Table 5 – Electric Statewide Program Budgets, by Sector ($)[73]

	2016		2017		2018		2016-2018	
	$	**%**	**$**	**%**	**$**	**%**	**$**	**%**
Residential								
Residential Whole House	$162,609,241	59%	$169,198,974	60%	$176,066,104	61%	$507,874,319	60%
Residential Products	$83,346,536	30%	$83,722,213	30%	$80,881,776	28%	$247,950,524	29%
Residential Hard-to-Measure	$29,196,955	11%	$30,435,021	11%	$31,140,439	11%	$90,772,414	11%
Residential Total	**$275,152,732**	**100%**	**$283,356,208**	**100%**	**$288,088,318**	**100%**	**$846,597,257**	**100%**
Low-Income								
Low-Income Whole House	$67,728,451	98%	$68,210,606	98%	$68,013,519	98%	$203,952,576	98%
Low-Income Hard-to-Measure	$1,472,533	2%	$1,483,326	2%	$1,490,783	2%	$4,446,642	2%
Low-Income Total	**$69,200,984**	**100%**	**$69,693,932**	**100%**	**$69,504,302**	**100%**	**$208,399,217**	**100%**
Commerical & Industrial								
C&I New Construction	$61,725,428	21%	$64,756,769	21%	$67,862,125	21%	$194,344,322	21%
C&I Retrofit	$220,418,647	77%	$231,973,398	77%	$242,568,338	77%	$694,960,383	77%
C&I Hard-to-Measure	$5,519,000	2%	$5,492,225	2%	$5,490,738	2%	$16,501,963	2%
C&I Total	**$287,663,075**	**100%**	**$302,222,391**	**100%**	**$315,921,201**	**100%**	**$905,806,668**	**100%**
Grand Total								
Residential Total	$275,152,732	44%	$283,356,208	43%	$288,088,318	43%	$846,597,257	43%
Low-Income Total	$69,200,984	11%	$69,693,932	11%	$69,504,302	10%	$208,399,217	11%
C&I Total	$287,663,075	46%	$302,222,391	46%	$315,921,201	47%	$905,806,668	46%
GRAND TOTAL	**$632,016,791**	**100%**	**$655,272,531**	**100%**	**$673,513,821**	**100%**	**$1,960,803,143**	**100%**

[73] Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015); Exhs. NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015).

Table 6 – Gas Statewide Program Budgets, by Sector ($)[74]

	2016		2017		2018		2016-2018	
	$	**%**	**$**	**%**	**$**	**%**	**$**	**%**
Residential								
Residential Whole House	$102,631,807	78%	$105,103,414	78%	$108,586,032	78%	$316,321,253	78%
Residential Products	$24,789,723	19%	$25,483,936	19%	$25,926,629	19%	$76,200,287	19%
Residential Hard-to-Measure	$4,143,475	3%	$4,204,759	3%	$4,381,774	3%	$12,730,008	3%
Residential Total	**$131,565,005**	**100%**	**$134,792,109**	**100%**	**$138,894,435**	**100%**	**$405,251,548**	**100%**
Low-Income								
Low-Income Whole House	$44,373,646	98%	$44,820,887	98%	$45,494,681	98%	$134,689,214	98%
Low-Income Hard-to-Measure	$1,067,623	2%	$1,077,994	2%	$1,121,215	2%	$3,266,831	2%
Low-Income Total	**$45,441,269**	**100%**	**$45,898,881**	**100%**	**$46,615,896**	**100%**	**$137,956,045**	**100%**
Commerical & Industrial								
C&I New Construction	$17,243,260	37%	$17,413,989	37%	$17,595,882	36%	$52,253,131	37%
C&I Retrofit	$27,471,680	59%	$28,322,367	60%	$29,861,964	61%	$85,656,011	60%
C&I Hard-to-Measure	$1,456,781	3%	$1,421,215	3%	$1,321,282	3%	$4,199,279	3%
C&I Total	**$46,171,721**	**100%**	**$47,157,571**	**100%**	**$48,779,128**	**100%**	**$142,108,421**	**100%**
Grand Total								
Residential Total	$131,565,005	59%	$134,792,109	59%	$138,894,435	59%	$405,251,548	59%
Low-Income Total	$45,441,269	20%	$45,898,881	20%	$46,615,896	20%	$137,956,045	20%
C&I Total	$46,171,721	21%	$47,157,571	21%	$48,779,128	21%	$142,108,421	21%
GRAND TOTAL	**$223,177,995**	**100%**	**$227,848,561**	**100%**	**$234,289,459**	**100%**	**$685,316,014**	**100%**

[74] Exhs. NG-Gas-4 (Rev.) (December 21, 2015); Eversource-Gas-4 (Rev.) (December 21, 2015); Berkshire-4 (Rev.) (December 21, 2015); Columbia-4 (Rev.) (December 21, 2015); LU-4 (Rev.) (December 21, 2015); FGE-Gas-4 (Rev.) (December 21, 2015).

Table 7 – Electric Program Administrator Budgets, by Sector ($)[75]

Program Administrator/ Sector	2016		2017		2018		2016-2018	
	$		$		$		$	
National Grid (electric)								
Residential	$131,960,315	45%	$138,903,537	46%	$141,740,710	46%	$412,604,563	46%
Low-income	$33,418,561	11%	$33,778,333	11%	$33,903,637	11%	$101,100,532	11%
C&I	$126,087,090	43%	$127,893,620	43%	$129,908,210	43%	$383,888,920	43%
Total	**$291,465,966**	**100%**	**$300,575,490**	**100%**	**$305,552,558**	**100%**	**$897,594,015**	**100%**
NSTAR Electric - WMECo								
Residential	$119,953,004	40%	$120,274,563	39%	$121,023,661	38%	$361,251,228	39%
Low-income	$31,106,854	10%	$30,812,435	10%	$29,986,005	9%	$91,905,294	10%
C&I	$145,529,463	49%	$156,203,925	51%	$165,484,032	52%	$467,217,420	51%
Total	**$296,589,320**	**100%**	**$307,290,923**	**100%**	**$316,493,699**	**100%**	**$920,373,942**	**100%**
Compact								
Residential	$21,642,293	56%	$22,558,347	53%	$23,687,146	51%	$67,887,786	53%
Low-income	$4,040,498	10%	$4,460,916	11%	$4,965,362	11%	$13,466,775	11%
C&I	$13,162,821	34%	$15,216,941	36%	$17,586,749	38%	$45,966,511	36%
Total	**$38,845,612**	**100%**	**$42,236,204**	**100%**	**$46,239,257**	**100%**	**$127,321,072**	**100%**
Unitil (electric)								
Residential	$1,597,119	31%	$1,619,761	31%	$1,636,800	31%	$4,853,681	31%
Low-income	$635,071	12%	$642,248	12%	$649,298	12%	$1,926,616	12%
C&I	$2,883,702	56%	$2,907,904	56%	$2,942,211	56%	$8,733,817	56%
Total	**$5,115,891**	**100%**	**$5,169,913**	**100%**	**$5,228,308**	**100%**	**$15,514,113**	**100%**
Grand Total								
Residential	$275,152,731	44%	$283,356,208	43%	$288,088,317	43%	$846,597,258	43%
Low-income	$69,200,984	11%	$69,693,932	11%	$69,504,302	10%	$208,399,217	11%
C&I	$287,663,076	46%	$302,222,390	46%	$315,921,202	47%	$905,806,668	46%
GRAND TOTAL	**$632,016,791**	**100%**	**$655,272,530**	**100%**	**$673,513,821**	**100%**	**$1,960,803,143**	**100%**

[75] Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015); Exhs. NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015).

Table 8 – Gas Program Administrator Budgets, by Sector ($)[76]

Program Administrator/ Sector	2016		2017		2018		2016-2018	
	$		$		$		$	
National Grid (gas)								
Residential	$77,509,435	61%	$79,652,061	61%	$82,070,872	61%	$239,232,368	61%
Low-income	$26,262,019	21%	$26,326,767	20%	$26,370,702	20%	$78,959,488	20%
C&I	$23,832,786	19%	$24,352,828	19%	$25,135,255	19%	$73,320,870	19%
Total	**$127,604,240**	**100%**	**$130,331,656**	**100%**	**$133,576,829**	**100%**	**$391,512,726**	**100%**
NSTAR Gas								
Residential	$26,763,803	56%	$27,733,901	56%	$28,975,955	56%	$83,473,659	56%
Low-income	$9,527,040	20%	$9,840,152	20%	$10,316,089	20%	$29,683,281	20%
C&I	$11,733,965	24%	$12,043,527	24%	$12,723,128	24%	$36,500,620	24%
Total	**$48,024,808**	**100%**	**$49,617,580**	**100%**	**$52,015,172**	**100%**	**$149,657,560**	**100%**
Berkshire								
Residential	$2,908,973	58%	$2,626,178	55%	$2,705,633	56%	$8,240,784	56%
Low-income	$965,428	19%	$969,472	20%	$972,907	20%	$2,907,808	20%
C&I	$1,171,710	23%	$1,179,218	25%	$1,186,925	24%	$3,537,853	24%
Total	**$5,046,111**	**100%**	**$4,774,868**	**100%**	**$4,865,465**	**100%**	**$14,686,445**	**100%**
Columbia								
Residential	$21,264,018	58%	$21,644,211	58%	$21,962,787	58%	$64,871,015	58%
Low-income	$7,283,027	20%	$7,360,901	20%	$7,539,711	20%	$22,183,639	20%
C&I	$7,966,992	22%	$8,084,581	22%	$8,202,631	22%	$24,254,203	22%
Total	**$36,514,037**	**100%**	**$37,089,693**	**100%**	**$37,705,129**	**100%**	**$111,308,857**	**100%**
Liberty								
Residential	$2,019,529	53%	$2,014,796	53%	$2,032,051	53%	$6,066,376	53%
Low-income	$924,552	24%	$911,297	24%	$916,525	24%	$2,752,374	24%
C&I	$845,162	22%	$862,514	23%	$881,905	23%	$2,589,580	23%
Total	**$3,789,243**	**100%**	**$3,788,607**	**100%**	**$3,830,481**	**100%**	**$11,408,330**	**100%**
Unitil (gas)								
Residential	$1,099,247	50%	$1,120,963	50%	$1,147,136	50%	$3,367,346	50%
Low-income	$479,203	22%	$490,292	22%	$499,961	22%	$1,469,456	22%
C&I	$621,108	28%	$634,902	28%	$649,285	28%	$1,905,295	28%
Total	**$2,199,558**	**100%**	**$2,246,157**	**100%**	**$2,296,382**	**100%**	**$6,742,097**	**100%**
Grand Total								
Residential	$131,565,005	59%	$134,792,110	59%	$138,894,434	59%	$405,251,548	59%
Low-income	$45,441,269	20%	$45,898,881	20%	$46,615,895	20%	$137,956,046	20%
C&I	$46,171,723	21%	$47,157,570	21%	$48,779,129	21%	$142,108,421	21%
GRAND TOTAL	**$223,177,997**	**100%**	**$227,848,561**	**100%**	**$234,289,458**	**100%**	**$685,316,015**	**100%**

[76] Exhs. NG-Gas-4 (Rev.) (December 21, 2015); Eversource-Gas-4 (Rev.) (December 21, 2015); Berkshire-4 (Rev.) (December 21, 2015); Columbia-4 (Rev.) (December 21, 2015); LU-4 (Rev.) (December 21, 2015); FGE-Gas-4 (Rev.) (December 21, 2015).

Table 9 – Electric Program Administrator PP&A Cost, by Sector ($)[77]

Program Administrator/ Sector	2016		2017		2018		2016-2018	
	$	% of Budget	$	% of Budget	$	% of Budget	$	% of Budget
National Grid (electric)								
Residential	$3,749,226	1.3%	$3,709,573	1.2%	$3,953,301	1.3%	$11,412,101	1.3%
Low-income	$1,410,383	0.5%	$1,364,642	0.5%	$1,406,749	0.5%	$4,181,775	0.5%
C&I	$4,398,343	1.5%	$4,472,075	1.5%	$4,324,066	1.4%	$13,194,484	1.5%
Total	**$9,557,952**	**3.3%**	**$9,546,290**	**3.2%**	**$9,684,116**	**3.2%**	**$28,788,360**	**3.2%**
NSTAR Electric - WMECo								
Residential	$5,492,559	1.9%	$5,668,244	1.8%	$5,517,909	1.7%	$16,678,712	1.8%
Low-income	$1,708,144	0.6%	$1,740,420	0.6%	$1,673,812	0.5%	$5,122,375	0.6%
C&I	$14,269,878	4.8%	$15,169,797	4.9%	$14,691,872	4.6%	$44,131,547	4.8%
Total	**$21,470,581**	**7.2%**	**$22,578,461**	**7.3%**	**$21,883,593**	**6.9%**	**$65,932,634**	**7.2%**
Compact								
Residential	$1,268,568	3.3%	$1,171,579	2.8%	$1,193,495	2.6%	$3,633,642	2.9%
Low-income	$268,783	0.7%	$264,628	0.6%	$284,526	0.6%	$817,937	0.6%
C&I	$830,371	2.1%	$840,154	2.0%	$923,533	2.0%	$2,594,057	2.0%
Total	**$2,367,722**	**6.1%**	**$2,276,360**	**5.4%**	**$2,401,554**	**5.2%**	**$7,045,636**	**5.5%**
Unitil (electric)								
Residential	$278,847	5.5%	$284,500	5.5%	$284,110	5.4%	$847,456	5.5%
Low-income	$141,465	2.8%	$145,532	2.8%	$149,608	2.9%	$436,305	2.8%
C&I	$286,169	5.6%	$289,952	5.6%	$294,315	5.6%	$870,436	5.6%
Total	**$706,481**	**13.8%**	**$719,983**	**13.9%**	**$728,033**	**13.9%**	**$2,154,197**	**13.9%**
Grand Total								
Residential	$10,789,200	1.7%	$10,833,896	1.7%	$10,948,815	1.6%	$32,571,911	1.7%
Low-income	$3,528,775	0.6%	$3,515,222	0.5%	$3,514,695	0.5%	$10,558,392	0.5%
C&I	$19,784,761	3.1%	$20,771,978	3.2%	$20,233,786	3.0%	$60,790,524	3.1%
GRAND TOTAL	**$34,102,736**	**5.4%**	**$35,121,094**	**5.4%**	**$34,697,296**	**5.2%**	**$103,920,827**	**5.3%**

[77] Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015); Exhs. NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015).

Table 10 – Gas Program Administrator PP&A Cost, by Sector ($)[78]

Program Administrator/ Sector	2016		2017		2018		2016-2018	
	$	% of Budget	$	% of Budget	$	% of Budget	$	% of Budget
National Grid (gas)								
Residential	$2,684,787	2.1%	$2,554,582	2.0%	$2,668,059	2.0%	$7,907,428	2.0%
Low-income	$1,267,857	1.0%	$1,221,633	0.9%	$1,252,728	0.9%	$3,742,218	1.0%
C&I	$991,452	0.8%	$902,640	0.7%	$926,016	0.7%	$2,820,108	0.7%
Total	**$4,944,096**	**3.9%**	**$4,678,855**	**3.6%**	**$4,846,803**	**3.6%**	**$14,469,754**	**3.7%**
NSTAR Gas								
Residential	$969,567	2.0%	$1,012,191	2.0%	$1,047,614	2.0%	$3,029,372	2.0%
Low-income	$436,564	0.9%	$456,663	0.9%	$475,385	0.9%	$1,368,612	0.9%
C&I	$1,688,371	3.5%	$1,801,619	3.6%	$1,799,085	3.5%	$5,289,076	3.5%
Total	**$3,094,502**	**6.4%**	**$3,270,473**	**6.6%**	**$3,322,084**	**6.4%**	**$9,687,060**	**6.5%**
Berkshire								
Residential	$221,996	4.4%	$226,148	4.7%	$232,338	4.8%	$680,482	4.6%
Low-income	$116,743	2.3%	$120,049	2.5%	$122,620	2.5%	$359,412	2.4%
C&I	$201,261	4.0%	$206,953	4.3%	$211,777	4.4%	$619,990	4.2%
Total	**$540,000**	**10.7%**	**$553,150**	**11.6%**	**$566,735**	**11.6%**	**$1,659,884**	**11.3%**
Columbia								
Residential	$812,236	2.2%	$838,750	2.3%	$875,079	2.3%	$2,526,065	2.3%
Low-income	$327,022	0.9%	$334,615	0.9%	$349,791	0.9%	$1,011,428	0.9%
C&I	$348,985	1.0%	$360,945	1.0%	$377,488	1.0%	$1,087,418	1.0%
Total	**$1,488,243**	**4.1%**	**$1,534,310**	**4.1%**	**$1,602,358**	**4.2%**	**$4,624,911**	**4.2%**
Liberty								
Residential	$215,354	5.7%	$185,215	4.9%	$190,753	5.0%	$591,322	5.2%
Low-income	$76,148	2.0%	$60,228	1.6%	$61,458	1.6%	$197,833	1.7%
C&I	$201,308	5.3%	$171,169	4.5%	$176,707	4.6%	$549,184	4.8%
Total	**$492,810**	**13.0%**	**$416,612**	**11.0%**	**$428,918**	**11.2%**	**$1,338,339**	**11.7%**
Unitil (gas)								
Residential	$198,171	9.0%	$202,619	9.0%	$207,067	9.0%	$607,857	9.0%
Low-income	$96,480	4.4%	$98,130	4.4%	$100,049	4.4%	$294,659	4.4%
C&I	$57,892	2.6%	$59,109	2.6%	$60,042	2.6%	$177,042	2.6%
Total	**$352,543**	**16.0%**	**$359,858**	**16.0%**	**$367,158**	**16.0%**	**$1,079,558**	**16.0%**
Grand Total								
Residential	$5,102,111	2.3%	$5,019,505	2.2%	$5,220,910	2.2%	$15,342,526	2.2%
Low-income	$2,320,814	1.0%	$2,291,318	1.0%	$2,362,031	1.0%	$6,974,162	1.0%
C&I	$3,489,269	1.6%	$3,502,435	1.5%	$3,551,115	1.5%	$10,542,818	1.5%
GRAND TOTAL	**$10,912,194**	**4.9%**	**$10,813,258**	**4.7%**	**$11,134,056**	**4.8%**	**$32,859,506**	**4.8%**

[78] Exhs. NG-Gas-4 (Rev.) (December 21, 2015); Eversource-Gas-4 (Rev.) (December 21, 2015); Berkshire-4 (Rev.) (December 21, 2015); Columbia-4 (Rev.) (December 21, 2015); LU-4 (Rev.) (December 21, 2015); FGE-Gas-4 (Rev.) (December 21, 2015).

Table 11 – Electric Program Administrator Allocation to Low Income[79]

Program Administrator/ Sector	2016		2017		2018		2016-2018	
	$	%	$	%	$	%	$	%
National Grid (electric)								
Residential	$125,228,251	45%	$132,022,746	46%	$134,819,235	47%	$392,070,232	46%
Low-income	**$32,544,343**	**12%**	**$32,875,646**	**12%**	**$32,952,695**	**11%**	**$98,372,684**	**12%**
C&I	$118,663,272	43%	$119,855,549	42%	$121,031,056	42%	$359,549,877	42%
Total	$276,435,866	100%	$284,753,941	100%	$288,802,986	100%	$849,992,793	100%
NSTAR Electric - WMECo								
Residential	$133,657,933	45%	$114,292,904	39%	$155,337,771	46%	$343,288,608	40%
Low-income	**$30,437,984**	**10%**	**$30,142,993**	**10%**	**$29,295,126**	**9%**	**$89,876,103**	**10%**
C&I	$134,923,505	45%	$144,972,464	50%	$153,324,850	45%	$433,220,819	50%
Total	$299,019,422	100%	$289,408,361	100%	$337,957,747	100%	$866,385,530	100%
Compact								
Residential	$21,642,293	56%	$22,558,347	53%	$23,687,146	51%	$67,887,786	53%
Low-income	$4,040,498	**10%**	$4,460,916	**11%**	$4,965,362	**11%**	$13,466,775	**11%**
C&I	$13,162,821	34%	$15,216,941	36%	$17,586,749	38%	$45,966,511	36%
Total	$38,845,612	100%	$42,236,204	100%	$46,239,256	100%	$127,321,073	100%
Unitil (electric)								
Residential	$1,503,918	31%	$1,519,191	31%	$1,534,617	31%	$4,557,726	31%
Low-income	**$613,210**	**13%**	**$619,378**	**13%**	**$625,601**	**13%**	**$1,858,189**	**13%**
C&I	$2,674,696	56%	$2,700,855	56%	$2,726,027	56%	$8,101,579	56%
Total	$4,791,824	100%	$4,839,424	100%	$4,886,245	100%	$14,517,494	100%
Grand Total								
Residential	$282,032,395	46%	$270,393,188	44%	$315,378,769	47%	$807,804,352	43%
Low-income	**$67,636,035**	**11%**	**$68,098,933**	**11%**	**$67,838,784**	**10%**	**$203,573,751**	**11%**
C&I	$269,424,294	44%	$282,745,809	46%	$294,668,682	43%	$846,838,786	46%
GRAND TOTAL	**$619,092,724**	**100%**	**$621,237,930**	**100%**	**$677,886,235**	**100%**	**$1,858,216,889**	**100%**

[79] Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015); Exhs. NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015).

Table 12 – Gas Program Administrator Allocation to Low Income[80]

Program Administrator/ Sector	2016		2017		2018		2016-2018	
	$	%	$	%	$	%	$	%
National Grid (gas)								
Residential	$75,886,845	61%	$77,979,721	61%	$80,298,404	62%	$234,164,971	61%
Low-income	**$25,762,671**	**21%**	**$25,813,907**	**20%**	**$25,840,420**	**20%**	**$77,416,999**	**20%**
C&I	$22,939,353	18%	$23,443,419	18%	$24,179,864	19%	$70,562,636	18%
Total	$124,588,869	100%	$127,237,047	100%	$130,318,688	100%	$382,144,606	100%
NSTAR Gas								
Residential	$26,178,057	56%	$27,134,451	56%	$28,342,431	56%	$81,654,938	56%
Low-income	**$9,346,959**	**20%**	**$9,651,207**	**20%**	**$10,114,105**	**20%**	**$29,112,272**	**20%**
C&I	$11,100,665	24%	$11,397,752	24%	$12,060,291	24%	$34,558,708	24%
Total	$46,625,681	100%	$48,183,410	100%	$50,516,827	100%	$145,325,918	100%
Berkshire								
Residential	$2,845,848	58%	$2,581,350	56%	$2,658,627	56%	$8,085,826	57%
Low-income	**$950,752**	**19%**	**$954,355**	**21%**	**$957,232**	**20%**	**$2,862,339**	**20%**
C&I	$1,108,803	23%	$1,115,088	24%	$1,120,804	24%	$3,344,695	23%
Total	$4,905,403	100%	$4,650,793	100%	$4,736,663	100%	$14,292,860	100%
Columbia								
Residential	$20,487,754	58%	$20,844,547	58%	$21,121,172	58%	$62,453,474	58%
Low-income	**$7,174,103**	**20%**	**$7,250,925**	**20%**	**$7,427,057**	**20%**	**$21,852,085**	**20%**
C&I	$7,592,090	22%	$7,707,446	22%	$7,817,243	21%	$23,116,779	22%
Total	$35,253,947	100%	$35,802,918	100%	$36,365,472	100%	$107,422,338	100%
Liberty								
Residential	$1,970,215	53%	$1,964,297	53%	$1,978,553	53%	$5,913,065	53%
Low-income	**$912,683**	**25%**	**$898,928**	**24%**	**$903,782**	**24%**	**$2,715,394**	**24%**
C&I	$815,935	22%	$830,399	22%	$850,522	23%	$2,496,856	22%
Total	$3,698,833	100%	$3,693,624	100%	$3,732,857	100%	$11,125,315	100%
Unitil (gas)								
Residential	$1,073,378	50%	$1,094,530	50%	$1,117,400	50%	$3,285,308	50%
Low-income	**$470,750**	**22%**	**$480,960**	**22%**	**$490,073**	**22%**	**$1,441,783**	**22%**
C&I	$592,142	28%	$604,365	28%	$617,406	28%	$1,813,913	28%
Total	$2,136,270	100%	$2,179,855	100%	$2,224,879	100%	$6,541,004	100%
Grand Total								
Residential	$128,442,097	59%	$131,598,896	59%	$135,516,587	59%	$395,557,582	59%
Low-income	**$44,617,918**	**21%**	**$45,050,282**	**20%**	**$45,732,669**	**20%**	**$135,400,872**	**20%**
C&I	$44,148,988	20%	$45,098,469	20%	$46,646,130	20%	$135,893,587	20%
GRAND TOTAL	**$217,209,003**	**100%**	**$221,747,647**	**100%**	**$227,895,386**	**100%**	**$666,852,041**	**100%**

80 Exhs. NG-Gas-4 (Rev.) (December 21, 2015); Eversource-Gas-4 (Rev.) (December 21, 2015); Berkshire-4 (Rev.) (December 21, 2015); Columbia-4 (Rev.) (December 21, 2015); LU-4 (Rev.) (December 21, 2015); FGE-Gas-4 (Rev.) (December 21, 2015).

Table 13 - Electric Program Administrator Cost-Effectiveness, by Sector ($)[81]

Program Administrator/	2016			2017			2018			2016-2018		
	BCR	Benefits	Costs	BCR	Benefits	Costs	BCR	Benefits	Costs	BCR	Benefits	Costs
National Grid (electric)												
Residential	2.28	398,632,857	174,733,232	2.25	398,959,304	177,335,348	2.25	391,336,685	173,885,491	2.26	1,188,928,846	525,954,071
Low-income	1.69	57,546,679	34,041,009	1.72	57,586,199	33,566,856	1.77	58,340,621	32,872,843	1.73	173,473,498	100,480,709
C&I	2.33	436,755,085	187,113,011	2.45	455,323,093	186,078,979	2.53	486,043,535	191,863,982	2.44	1,378,121,712	565,055,971
Total	**2.26**	**892,934,621**	**395,887,252**	**2.30**	**911,868,595**	**396,981,183**	**2.35**	**935,720,840**	**398,622,316**	**2.30**	**2,740,524,056**	**1,191,490,751**
NSTAR Electric - WMECo												
Residential	2.52	358,375,247	142,378,685	2.45	333,116,827	136,028,811	2.36	310,289,290	131,489,300	2.44	1,001,781,365	409,896,797
Low-income	1.53	46,646,904	30,437,984	1.54	45,387,951	29,396,326	1.61	44,841,427	27,861,773	1.56	136,876,282	87,696,083
C&I	3.00	602,347,230	200,820,514	2.89	627,347,128	217,130,505	2.87	663,752,996	231,495,659	2.92	1,893,447,353	649,446,678
Total	**2.70**	**1,007,369,381**	**373,637,183**	**2.63**	**1,005,851,906**	**382,555,642**	**2.61**	**1,018,883,713**	**390,846,732**	**2.64**	**3,032,105,001**	**1,147,039,558**
Compact												
Residential	2.26	60,058,844	26,525,537	2.31	61,650,073	26,693,489	2.35	63,721,865	27,139,650	2.31	185,430,783	80,358,676
Low-income	2.42	9,767,299	4,040,498	2.55	11,084,297	4,350,415	2.51	11,846,681	4,722,416	2.49	32,698,277	13,113,329
C&I	2.85	53,598,354	18,787,405	2.89	57,506,827	19,865,903	3.09	67,166,111	21,747,394	2.95	178,271,292	60,400,703
Total	**2.50**	**123,424,497**	**49,353,440**	**2.56**	**130,241,198**	**50,909,807**	**2.66**	**142,734,656**	**53,609,461**	**2.58**	**396,400,351**	**153,872,708**
Unitil (electric)												
Residential	2.69	5,285,741	1,961,381	2.86	5,489,986	1,921,892	2.88	5,431,229	1,887,481	2.81	16,206,956	5,770,754
Low-income	2.09	1,328,907	635,071	2.15	1,344,839	626,339	2.19	1,351,119	617,529	2.14	4,024,865	1,878,938
C&I	2.50	12,067,903	4,819,729	2.49	11,673,452	4,685,123	2.57	11,792,061	4,585,171	2.52	35,533,416	14,090,023
Total	**2.52**	**18,682,551**	**7,416,181**	**2.56**	**18,508,277**	**7,233,354**	**2.62**	**18,574,410**	**7,090,181**	**2.57**	**55,765,238**	**21,739,715**
Grand Total												
Residential	2.38	822,352,690	345,598,835	2.34	799,216,190	341,979,540	2.30	770,779,069	334,401,923	2.34	2,392,347,949	1,021,980,297
Low-income	1.67	115,289,789	69,154,561	1.70	115,403,287	67,939,936	1.76	116,379,848	66,074,561	1.71	347,072,923	203,169,059
C&I	2.68	1,104,768,571	411,540,660	2.69	1,151,850,500	427,760,509	2.73	1,228,754,702	449,692,206	2.70	3,485,373,773	1,288,993,375
Total	**2.47**	**2,042,411,049**	**826,294,056**	**2.47**	**2,066,469,977**	**837,679,985**	**2.49**	**2,115,913,619**	**850,168,690**	**2.48**	**6,224,794,645**	**2,514,142,731**

[81] Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015); Exhs. NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015).

Table 14 - Gas Program Administrator Cost-Effectiveness, by Sector ($)[82]

Program Administrator/	2016			2017			2018			2016-2018		
	BCR	Benefits	Costs	BCR	Benefits	Costs	BCR	Benefits	Costs	BCR	Benefits	Costs
National Grid (gas)												
Residential	1.49	166,198,839	111,244,053	1.49	167,481,199	112,567,011	1.50	171,986,279	114,349,417	1.50	505,487,836	338,160,481
Low-income	1.77	46,695,128	26,440,385	1.80	46,411,222	25,853,798	1.83	46,336,791	25,260,405	1.80	139,443,142	77,554,588
C&I	2.44	73,765,237	30,181,451	2.42	73,451,618	30,358,003	2.42	75,202,420	31,012,540	2.43	222,419,275	91,551,994
Total	**1.71**	**286,659,205**	**167,865,889**	**1.70**	**287,344,040**	**168,778,812**	**1.72**	**293,507,490**	**170,622,362**	**1.71**	**867,510,734**	**507,267,063**
NSTAR Gas												
Residential	1.59	57,816,651	36,341,305	1.58	58,010,045	36,806,754	1.59	59,587,313	37,582,652	1.58	175,414,009	110,730,711
Low-income	1.77	16,835,076	9,527,040	1.79	17,139,362	9,596,403	1.81	17,757,997	9,811,343	1.79	51,732,435	28,934,786
C&I	2.78	50,443,330	18,164,864	2.76	50,249,648	18,215,677	2.68	50,705,817	18,944,935	2.74	151,398,795	55,325,475
Total	**1.95**	**125,095,058**	**64,033,209**	**1.94**	**125,399,054**	**64,618,833**	**1.93**	**128,051,127**	**66,338,930**	**1.94**	**378,545,239**	**194,990,973**
Berkshire												
Residential	1.45	6,596,210	4,556,198	1.37	4,755,556	3,483,348	1.39	4,812,779	3,474,110	1.40	16,164,545	11,513,657
Low-income	1.53	1,479,998	965,428	1.56	1,472,751	945,458	1.59	1,471,715	925,305	1.56	4,424,464	2,836,191
C&I	2.53	5,140,619	2,031,858	2.56	5,092,897	1,988,849	2.61	5,090,684	1,946,913	2.57	15,324,199	5,967,620
Total	**1.75**	**13,216,827**	**7,553,484**	**1.76**	**11,321,204**	**6,417,655**	**1.79**	**11,375,177**	**6,346,328**	**1.77**	**35,913,208**	**20,317,467**
Columbia												
Residential	2.19	66,575,024	30,442,450	2.19	66,704,532	30,422,991	2.25	67,837,422	30,149,204	2.21	201,117,182	91,014,644
Low-income	1.52	11,051,359	7,283,027	1.52	10,884,164	7,178,565	1.52	3,700,543	7,170,807	1.52	32,806,874	21,632,400
C&I	2.74	29,958,031	10,922,504	2.71	29,491,100	10,900,996	2.70	18,511,317	10,883,437	2.72	88,843,884	32,706,937
Total	**2.21**	**107,584,414**	**48,647,981**	**2.21**	**107,079,796**	**48,502,552**	**2.24**	**59,900,281**	**48,203,448**	**2.22**	**322,767,940**	**145,353,981**
Liberty												
Residential	1.72	4,677,290	2,726,402	1.75	4,622,384	2,637,623	1.81	4,697,753	2,588,699	1.76	13,997,426	7,952,724
Low-income	1.38	1,279,006	924,552	1.43	1,270,801	888,724	1.45	1,264,648	871,681	1.42	3,814,455	2,684,957
C&I	2.07	2,554,176	1,234,269	2.18	2,683,625	1,229,200	1.99	2,647,650	1,329,249	2.08	7,885,451	3,792,818
Total	**1.74**	**8,510,473**	**4,885,322**	**1.80**	**8,576,810**	**4,755,548**	**1.80**	**8,610,050**	**4,789,629**	**1.78**	**25,697,332**	**14,430,499**
Unitil (gas)												
Residential	1.61	2,537,092	1,576,480	1.61	2,527,877	1,570,315	1.70	2,694,560	1,584,807	1.64	7,759,929	4,731,601
Low-income	1.69	808,510	479,203	1.78	848,902	478,147	1.82	866,580	475,499	1.76	2,523,992	1,432,849
C&I	2.58	2,352,687	910,547	2.46	2,455,179	999,676	2.52	2,479,195	982,117	2.52	7,287,061	2,892,340
Total	**1.92**	**5,698,290**	**2,966,229**	**1.91**	**5,831,958**	**3,048,138**	**1.99**	**6,040,334**	**3,042,423**	**1.94**	**17,570,582**	**9,056,789**
Grand Total												
Residential	1.63	304,401,106	187,015,978	1.62	304,101,593	187,488,042	1.64	311,598,308	189,728,888	1.63	920,101,008	564,232,909
Low-income	1.71	78,149,078	45,619,635	1.74	78,027,203	44,941,094	1.77	78,569,081	44,515,041	1.74	234,745,363	135,075,770
C&I	2.59	164,214,081	63,445,592	2.57	163,424,066	63,692,401	2.54	165,520,517	65,099,191	2.57	493,158,664	192,237,184
Total	**1.85**	**546,764,266**	**296,081,206**	**1.84**	**545,552,863**	**296,121,538**	**1.86**	**555,687,907**	**299,343,120**	**1.85**	**1,648,005,035**	**891,545,863**

82 Exhs. NG-Gas-4 (Rev.) (December 21, 2015); Eversource-Gas-4 (Rev.) (December 21, 2015); Berkshire-4 (Rev.) (December 21, 2015); Columbia-4 (Rev.) (December 21, 2015); LU-4 (Rev.) (December 21, 2015); FGE-Gas-4 (Rev.) (December 21, 2015).

Table 15 - Electric Program Administrator Funding Sources[83]

Program Administrator/Source	2016		2017		2018		2016-2018	
	$	%	$	%	$	%	$	%
National Grid (electric)								
SBC	54,751,731	19%	54,988,834	18%	55,098,005	17%	164,838,570	18%
FCM	17,582,823	6%	37,897,429	12%	55,752,995	17%	111,233,248	12%
RGGI	24,305,812	8%	28,139,750	9%	28,641,369	9%	81,086,931	9%
Other	-	-	-	-	-	-	-	-
Carryover	3,581,536	1%	3,581,536	1%	3,581,536	1%	10,744,609	1%
EERF	195,138,479	66%	187,897,902	60%	177,092,842	55%	560,129,222	60%
Total	**295,360,382**	**100%**	**312,505,452**	**100%**	**320,166,747**	**100%**	**928,032,581**	**100%**
NSTAR Electric - WMECo								
SBC	56,386,649	16%	55,990,528	15%	55,296,953	16%	167,674,130	16%
FCM	20,856,536	6%	59,874,885	17%	74,195,462	21%	154,926,883	15%
RGGI	25,608,513	7%	29,647,937	8%	30,176,440	9%	85,432,890	8%
Other	-	-	-	-	-	-	-	-
Carryover	13,030,147	4%	-	-	-	-	13,030,147	1%
EERF	236,271,717	67%	215,737,447	60%	188,261,126	54%	640,270,290	60%
Total	**352,153,562**	**100%**	**361,250,796**	**100%**	**347,929,981**	**100%**	**1,061,334,339**	**100%**
Compact								
SBC	5,031,877	13%	5,009,774	12%	4,962,679	11%	15,004,329	12%
FCM	910,855	2%	2,029,070	5%	5,460,774	12%	8,400,699	7%
RGGI	4,418,008	11%	5,114,894	12%	5,206,072	11%	14,738,973	12%
Other	-	-	-	-	-	-	-	-
Carryover	-2,892,306	-7%	-	-	-	-	-2,892,306	-2%
EERF	31,563,076	81%	30,350,263	71%	30,959,429	66%	92,872,768	72%
Total	**39,031,510**	**100%**	**42,504,001**	**100%**	**46,588,954**	**100%**	**128,124,464**	**100%**
Unitil (electric)								
SBC	1,113,883	22%	1,091,770	21%	1,071,857	21%	3,277,510	21%
FCM	207,944	4%	535,650	10%	879,431	17%	1,623,026	10%
RGGI	622,474	12%	720,661	14%	733,508	14%	2,076,643	13%
Other	-	-	-	-	-	-	-	-
Carryover	444,246	9%	-	-	-	-	444,246	3%
EERF	2,727,345	53%	2,821,832	55%	2,543,512	49%	8,092,689	52%
Total	**5,115,891**	**100%**	**5,169,913**	**100%**	**5,228,308**	**100%**	**15,514,113**	**100%**
Grand Total								
SBC	$117,284,141	17%	$117,080,906	16%	$116,429,494	16%	$350,794,540	16%
FCM	$39,558,158	6%	$100,337,035	14%	$136,288,662	19%	$276,183,855	13%
RGGI	$54,954,807	8%	$63,623,242	9%	$64,757,389	9%	$183,335,438	9%
Other	-	-	-	-	-	-	-	-
Carryover	$14,163,623	2%	$3,581,536	0%	$3,581,536	0%	$21,326,696	1%
EERF	$465,700,617	67%	$436,807,443	61%	$398,856,909	55%	$1,301,364,969	61%
GRAND TOTAL	**$691,661,345**	**100%**	**$721,430,162**	**100%**	**$719,913,990**	**100%**	**$2,133,005,497**	**100%**

83 Statewide Plan, Exh. 1, App. C (Rev.) (December 21, 2015); Exhs. NG-Electric-4 (Rev.) (December 21, 2015); Eversource-Electric-4 (Rev.) (December 21, 2015); Compact-4 (Rev.) (December 21, 2015); FGE-Electric-4 (Rev.) (December 21, 2015).

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.