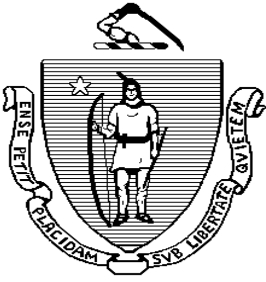

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 18-110 January 29, 2019

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 2019 through 2021.

D.P.U. 18-111

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 2019 through 2021.

D.P.U. 18-112

Petition of Fitchburg Gas and Electric Light Company, d/b/a Unitil (Gas Division), pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2019 through 2021.

D.P.U. 18-113

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 2019 through 2021.

D.P.U. 18-114

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 2019 through 2021.

D.P.U. 18-115

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 2019 through 2021.

D.P.U. 18-116

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, and Yarmouth, and Dukes County, acting together as the Cape Light Compact JPE, pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2019 through 2021.

D.P.U. 18-117

Petition of Fitchburg Gas and Electric Light Company, d/b/a Unitil (Electric Division), pursuant to G.L. c. 25, § 21 for approval by the Department of Public Utilities of its Three-Year Energy Efficiency Plan for 2019 through 2021.

D.P.U. 18-118

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 2019 through 2021.

D.P.U. 18-119

Petition of NSTAR Electric 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 2019 through 2021.

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I. INTRODUCTION AND PROCEDURAL HISTORY

On October 31, 2018, Bay State Gas Company, d/b/a Columbia Gas of Massachusetts ("Columbia Gas"); 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 d/b/a Eversource Energy ("NSTAR Electric"); 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, and Yarmouth, and Dukes County, acting together as the Cape Light Compact JPE ("Compact") (together, "Program Administrators") each filed a three-year energy efficiency plan with the Department of Public Utilities ("Department") for calendar years 2019 through 2021 ("Three-Year Plans"). The Program Administrators filed their Three-Year Plans pursuant to An Act Relative to Green Communities, St. 2008, c. 169, codified at G.L. c. 25, §§ 19, 21-22, as amended by An Act Relative to Competitively Priced Electricity in the Commonwealth, St. 2012, c. 209 ("Energy Act of 2012"), and by An Act to Advance Clean

[1] National Grid (gas) also administers energy efficiency programs for Blackstone Gas Company. Blackstone Gas Company, and Boston Gas Company and Colonial Gas Company, D.P.U. 15-79 (2015).

Energy, St. 2018, c. 227 ("Energy Act of 2018") (collectively "Green Communities Act"), and Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines Consistent with An Act Relative to Green Communities, D.P.U. 08-50 (2008); D.P.U. 08-50-A (2009); D.P.U. 08-50-B (2009); 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, cost-recovery mechanisms 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. St. 2012, c. 209, § 32(h), (i).

On November 1, 2018, the Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention pursuant to G.L. c. 12, § 11E in each Three-Year Plan docket. On November 6, 2018, the Department stamp-granted the petitions to intervene of the Massachusetts Department of Energy Resources ("DOER"), Conservation Law Foundation ("CLF"), Low-Income Weatherization and Fuel Assistance Program

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[2] The Department docketed these matters as follows: (1) D.P.U. 18-110 for Columbia Gas; (2) D.P.U. 18-111 for Berkshire; (3) D.P.U. 18-112 for Unitil (gas); (4) D.P.U. 18-113 for Liberty; (5) D.P.U. 18-114 for National Grid (gas); (6) D.P.U. 18-115 for NSTAR Gas; (7) D.P.U. 18-116 for the Compact; (8) D.P.U. 18-117 for Unitil (electric); (9) D.P.U. 18-118 for National Grid (electric); and (10) D.P.U. 18-119 for NSTAR Electric.

Network and the Low-Income Energy Affordability Network (together, "LEAN"), Acadia Center ("Acadia"), Northeast Energy Efficiency Council ("NEEC"), and PowerOptions, Inc. ("PowerOptions") as full parties in each Three-Year Plan docket. Also, on November 6, 2018, the Department stamp-granted the City of Lowell's petition to intervene in D.P.U. 18-118 and the petition for limited participant status of Associated Industries of Massachusetts ("AIM") in each docket. On November 9, 2018, the Department granted the petitions to intervene of NSTAR Electric and National Grid (gas) in D.P.U. 18-116. Cape Light Compact JPE, D.P.U. 18-116, Hearing Officer Ruling at 5 (November 9, 2018). On November 21, 2018, the Department granted the petition for limited participant status of Sunrun Inc. in D.P.U. 18-116, D.P.U. 18-117, D.P.U. 18-118, and D.P.U. 18-119. D.P.U. 18-116, Fitchburg Gas and Electric Light Company, D.P.U. 18-117, Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 18-118, NSTAR Electric Company, D.P.U. 18-119, Hearing Officer Ruling at 6 (November 21, 2018). On November 26, 2018, the Department stamp-granted the petition to intervene of the Massachusetts Association of Realtors ("MAR") in each docket and the petition for limited participant status of the Greater Boston Real Estate Board ("GBREB") in D.P.U. 18-110, D.P.U. 18-114, D.P.U. 18-115, D.P.U. 18-118, and D.P.U. 18-119.

Pursuant to notice duly issued, the Department held a joint public hearing on December 3, 2018.[3] The Department held three days of evidentiary hearings on

[3] The Department held a joint public hearing in each docket. These cases, however, are not consolidated and remain separate proceedings.

December 10, 11, and 17, 2018.[4] On December 31, 2018, the Program Administrators (jointly), the Attorney General, DOER, Acadia, CLF, LEAN, MAR, and PowerOptions filed briefs in each docket, National Grid (gas) filed a brief in D.P.U. 18-116, the Compact filed a supplemental brief in D.P.U. 18-116, and GBREB filed a brief in D.P.U. 18-110, D.P.U. 18-114, D.P.U. 18-115, D.P.U. 18-118, and D.P.U. 18-119. On January 8, 2019, the Program Administrators (jointly), the Attorney General, DOER, Acadia, CLF, and MAR filed reply briefs in each docket, National Grid (gas) and NSTAR Gas each filed a reply brief in D.P.U. 18-116, and GBREB filed a reply brief in D.P.U. 18-110, D.P.U. 18-114, D.P.U. 18-115, D.P.U. 18-118, and D.P.U. 18-119. The evidentiary records for D.P.U. 18-110 through D.P.U. 18-119 include approximately 1,950 exhibits and seven responses to record requests.

II. BACKGROUND

A. Introduction

Pursuant to the Green Communities Act, all Program Administrators are required to develop energy efficiency plans that "provide for the acquisition of all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply." G.L. c. 25, § 21(b)(1). The Green Communities Act establishes an Energy

[4] The Department held joint evidentiary hearings on December 10 and 11, 2018, on common issues. The Department also held a Compact-specific evidentiary hearing on December 17, 2018.

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).

Programs contained in the Statewide Plan may include, but are not limited to, the following: (1) efficiency and load management programs, including programs for energy storage and other active demand management technologies and strategic electrification; (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

[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 ("DEP"); (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) MAR; (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. ("ISO-NE"), and one from energy efficiency businesses. G.L. c. 25, § 22(a).

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; (9) programs for public education regarding energy efficiency and demand management; and (10) programs that result in customers switching to renewable energy sources or other clean energy technologies. G.L. c. 25, § 21(b)(2); St. 2018, c. 227, §§ 2, 4.

The Program Administrators must submit a Statewide Plan 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.[6] 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).

Each Program Administrator must also develop and file with the Department an individual Three-Year Plan, based on the Statewide Plan, which includes Program Administrator-specific information. G.L. c. 25, § 21(d)(1). The Program Administrators must, by October 31st of that same year, 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). The Department is then required to conduct a

[6] Approval requires a two-thirds majority vote of the Council. G.L. c. 25, § 22(b).

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).

B. Energy Efficiency Advisory Council Resolutions

As required by the Green Communities Act, the Council has worked closely with the Program Administrators to develop the energy efficiency programs and budgets found in the Statewide Plan. G.L. c. 25, § 22(b). During this process, the Council issued three resolutions regarding its recommendations concerning various elements of the Statewide Plan and individual Program Administrators' Three-Year Plans: (1) a February 28, 2018 "Resolution Concerning Its Priorities for the Development, Implementation, and Evaluation of the Statewide Plan;" (2) a July 31, 2018 "Resolution Regarding the April 30th Draft of the Statewide Plan;" and (3) an October 30, 2018 "Resolution Regarding the 2019-2021 Massachusetts Joint Statewide Three-Year Electric and Gas Energy Efficiency Investment Plans"(Statewide Plan, Exh. 1, Apps. D, E, G).

Following the February 28, 2018 resolution, the Program Administrators, Council consultants, DOER, and the Attorney General worked collaboratively to review certain aspects of the Three-Year Plans as well as savings and cost assumptions. On July 31, 2018, the Council found that the draft Statewide Plan, submitted on April 30, 2018, required additional programing details and analytical support (Statewide Plan, Exh. 1, App. E). The Program Administrators submitted a revised draft Statewide Plan to the Council on September 14, 2018 (Statewide Plan, Exh. 1, App. G). On October 19, 2018, the Program

Administrators, DOER, and the Attorney General reached an agreement on the 2019-2021 goals, budgets, performance incentive pool, and other terms reflected in the Statewide Plan ("Term Sheet") (Statewide Plan, Exh. 1, App. F).

On October 22, 2018, the Program Administrators submitted updated data tables and a memorandum outlining the enhancements contained in the Statewide Plan (Statewide Plan, Exh. 1, App. F). On October 30, 2018, the Council unanimously passed a resolution supporting the Statewide Plan and, to the extent they are consistent with the Statewide Plan, the Program Administrators' respective Three-Year Plans (Statewide Plan, Exh. 1, App. G).

C. Department Review of Three-Year Plans

Pursuant to the Green Communities Act, each Program Administrator's Three-Year Plan must provide for the acquisition of all available energy efficiency resources that are cost effective or less expensive than supply. G.L. c. 25, §§ 19(a), 21(a), 21(b)(1), 21(b)(2), 21(d)(2). Further, 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, §§ 19(a), 19(b), 21(a), 21(b)(1); see also Guidelines § 3.4.7. The Three-Year Plans must provide for the acquisition of these resources with the lowest reasonable customer contribution. G.L. c. 25, § 21(b)(1).

For the purpose of evaluating cost effectiveness, the Green Communities Act, as amended by the Energy Act of 2018, provides that review occurs at the sector level (i.e., residential, low income, and commercial and industrial ("C&I")). St. 2018, c. 227, § 6. If a sector benefit-cost ratio exceeds one, then the sector is deemed to be cost effective.

St. 2018, c. 227, § 6. If, however, a sector fails the cost-effectiveness test, then its component programs shall be modified so that the sector is cost effective, or the program must be terminated. St. 2018, c. 227, § 6.

In order to evaluate whether the mandate of all available cost-effective energy efficiency has been met, the Department weighs, among other things, whether the Program Administrator (1) plans for a sustainable effort in its continued delivery of energy efficiency, (2) has considered new technologies and enhancements, (3) has included the results of avoided costs, potential and evaluation studies, and (4) has sought to design programs to address identified barriers. 2016-2018 Three-Year Energy Efficiency Plans, D.P.U. 15-160 through D.P.U. 15-169, at 25-27 (2016) ("2016-2018 Three-Year Plans Order"); 2013-2015 Three-Year Energy Efficiency Plans, D.P.U. 12-100 through D.P.U. 12-111, at 37-40 (2013) ("2013-2015 Three-Year Plans Order").

In addition, when reviewing the Three-Year Plans, the Department must ensure the following: (1) that the Program Administrators have minimized administrative costs to the fullest extent practicable; (2) that Program Administrators will use competitive procurement processes to the fullest extent practicable; and (3) 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(a), (b), (c), 21(b)(3).

Finally, to recover the costs related to energy efficiency, electric Program Administrators must first fund the Three-Year Plans from other revenue sources.[7] The Department may also approve funding from gas and electric ratepayers through a fully reconciling funding mechanism, after considering the rate and bill impacts on consumers. G.L. c. 25, § 19(a), (b); Guidelines § 3.2.1.6.2; 3.2.2; D.P.U. 08-50-A at 56-60; D.P.U. 08-50-B at 18-19.

In this Order, the Department addresses the following elements of the Three-Year Plans: (1) energy savings, (2) administrative costs, competitive procurement, and low income allocation; (3) cost effectiveness; (4) performance incentives; and (5) funding sources. Additionally, the Department addresses certain elements that are specific to the Compact and other issues.

III. ENERGY SAVINGS

A. 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(a), 21(b)(1); see also Guidelines § 3.4.7. In order to achieve this mandate, the Program Administrators work with the Council to develop the savings goals contained in the Statewide Plan. G.L. c. 25, § 21(b)(1). When reviewing the

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7 The revenue sources are (1) a mandatory $0.0025 per kilowatt-hour ("kWh"), system benefits charge ("SBC"), (2) revenues from the forward capacity market ("FCM"), administered by ISO-NE, (3) revenues from cap and trade pollution control programs (e.g., Regional Greenhouse Gas Initiative ("RGGI"), and (4) other funding sources. Guidelines § 3.2.1; see also G.L. c. 25, § 19(a).

individual savings goals, the Department must ensure that each Program Administrator has taken appropriate steps to demonstrate that its Three-Year Plan (1) establishes a sustainable effort in its continued delivery of energy efficiency, (2) has considered new technologies and enhancements, (3) has included the results of avoided costs, potential and evaluation, measurement, and verification ("EM&V") studies, and (4) has sought to design programs to address identified barriers. 2016-2018 Three-Year Plans Order, at 25-27; 2013-2015 Three-Year Plans Order, at 37-40. These issues are relevant to the Department's ultimate determination of whether the Three-Year Plans will provide for the acquisition of all available cost-effective energy efficiency and demand reduction resources. See G.L. c. 25, §§ 19(a), 19(b), 21(b)(1).

B. Program Administrators Proposal

1. Savings Goals

The Program Administrators state that they engaged in a collaborative planning process for setting the savings goals contained in the Statewide Plan (Statewide Plan, Exh. 1, at 144). Development of the Statewide Plan involved discussions between the Program Administrators, the Executive Office of Energy and Environmental Affairs ("EEA"), DOER, the Attorney General, and the Council's consultants regarding program savings goals, budgets, and key priorities (Statewide Plan, Exh. 1, at 11, 150). Pursuant to G.L. c. 25, § 21, the Council reviewed a draft Statewide Plan submitted by the Program Administrators on April 30, 2018, and subsequently approved the Statewide Plan on October 30, 2018 (Statewide Plan, Exh. 1, at 21).

The Program Administrators state that they developed their individual savings goals based on the following considerations: (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 other 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;[8] (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 144-151). The Program Administrators state that the gas and electric statewide savings goals contained in the Statewide Plan are consistent with the Term Sheet (Statewide Plan, Exh. 1, at 151).

The aggregate gas and electric statewide savings goals for the term and each Program Administrator's individual savings goal, expressed as a percentage of sales, are shown in Tables 1 and 2 below, respectively.[9]

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8 To provide them with a better understanding of the remaining technical, economic, and achievable energy efficiency savings opportunities within their service territories, each Program Administrator states that it completed an energy efficiency potential study (Statewide Plan, Exh. 1, at 147-148, App. N).

9 In addition, the electric Program Administrators' Three-Year Plans include significant oil savings (Statewide Plan, Exh. 1, App. C - Electric (Rev.) (December 20, 2018)).

Table 1: Individual Electric Program Administrator Savings Goals (as a Percentage of Sales)[10]

	Total 2019-2021
National Grid (electric)	2.71%
NSTAR Electric	2.76%
Unitil (electric)	1.47%
Compact	2.14%
Aggregate Statewide Goal	2.67%

Table 2: Individual Gas Program Administrator Savings Goals (as a Percentage of Sales)[11]

	Total 2019-2021
National Grid (gas)	1.28%
NSTAR Gas	1.34%
Columbia Gas	1.28%
Unitil (gas)	0.78%
Berkshire	0.65%
Liberty	0.58%
Aggregate Statewide Goal	1.25%

2. Active Demand Reduction Offerings

The electric Program Administrators propose the following seven active demand reduction offerings as part of the Statewide Plan:[12] (1) residential direct load control;

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10 Sources: For each electric Program Administrator, Statewide Plan, Exh. 1, App. F at 11-18.

11 Sources: For each gas Program Administrator, Statewide Plan, Exh. 1, App. F at 11-18.

(2) residential storage performance; (3) C&I interruptible load curtailment (summer); (4) C&I interruptible load curtailment (winter); (5) C&I storage performance (daily dispatch); (6) C&I storage performance (targeted dispatch – summer); and (7) C&I storage performance (targeted dispatch – winter) (see, e.g., Statewide Plan, Exh. 1, at 67-69, 121-124; Exh. Eversource Energy (electric)-5 (Rev.) (December 20, 2018)). In addition, the electric Program Administrators propose to expand the HEAT Loan program and offer five-year incentive commitments to customers installing new storage projects to assist with financing (see, e.g., Statewide Plan, Exh. 1, at 68; Exh. Eversource Energy (electric)-2, at 61-62; Exh. DPU-Electric 2-15; Exh. DPU-Electric 2-16).

The electric Program Administrators also propose to offer performance-based incentives for the active demand reduction offerings (see, e.g., Exh. Eversource Energy (electric)-2, at 57). In particular, customers participating in the residential direct load control offering will receive incentives based on annual enrollment, while customers participating in all other active demand reduction offerings will receive incentives based on verified demand reductions (see, e.g., Exh. Eversource Energy (electric)-2, at 57). The electric Program Administrators anticipate that the active demand reduction offerings will result in approximately 200 megawatts ("MW") of peak demand reduction and 50 MW of

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[12] In addition to the statewide offerings, the Compact, NSTAR Electric, and National Grid (electric) each propose Program Administrator-specific active demand reduction offerings (Statewide Plan, Exh. 1, App. K). The Compact's offerings are discussed in Section VIII below. The offerings of NSTAR Electric and National Grid (electric) are discussed in the Analysis and Findings below.

winter demand reduction by 2021 (Statewide Plan, Exh. 1, App. C – Electric, Table IV.D.3.2.i).

The electric Program Administrators propose to offer the residential direct load control offering to customers with eligible controllable communicating devices (e.g., thermostats controlling cooling loads) and to target summer peak demand reductions (see, e.g., Statewide Plan, Exh. 1, at 67-68; Exh. Eversource Energy (electric)-2, at 55). Through the proposed residential storage performance offering, the electric Program Administrators intend to dispatch residential storage systems (1) on a daily basis during summer peak periods[13] and (2) on a targeted basis during winter periods (Statewide Plan, Exh. 1, at 68).

The electric Program Administrators state that the proposed C&I interruptible load curtailment offerings will be technology-neutral and will provide incentives for verifiable load shedding in response to Program Administrator-called events during summer and/or winter peak periods (Statewide Plan, Exh. 1, at 122-123). Finally, the electric Program Administrators propose to offer increased performance incentives for C&I storage systems through the C&I storage performance offerings for verifiable load reductions during the summer or winter periods (Statewide Plan, Exh. 1, at 123).

13 The electric Program Administrators hypothesize that storage can be dispatched more frequently than other active demand reduction technologies and that a daily dispatch during the summer would act like traditional energy efficiency, thereby reducing the system peak (see, e.g., Exhs. Eversource Energy (electric)-2, at 59; DPU-Electric 2-4). The electric Program Administrators state they may explore a residential targeted dispatch offering for the summer if customers are not willing to enroll in a daily dispatch offering (Tr. 1, at 26).

3. Evaluation, Measurement, and Verification

The Program Administrators propose to continue the evaluation framework that they previously employed to support third-party EM&V efforts (Statewide Plan, Exh. 1, at 174). In particular, the Program Administrators propose to focus their EM&V activities on the following three research areas: (1) residential; (2) C&I; and (3) special and cross-cutting[14] (Statewide Plan, Exh. 1, at 175). Within each research area, the Program Administrators propose to conduct the following types of EM&V studies: (1) impact evaluations; (2) baseline studies; (3) net-to-gross studies; (4) market effects evaluations; (5) non-energy impact ("NEI") studies; (6) cost and measure life studies; (7) market characterization studies; and (8) process evaluations (Statewide Plan, Exh. 1, at 176). The Program Administrators propose to allocate $71,894,765 (or 2.6 percent of the total proposed budget) for statewide EM&V activities during the upcoming Three-Year Plan term (Statewide Plan, Exh. 1, at 141, App. C - Electric (Rev.) (December 20, 2018) at 12; App. C - Gas (Rev.) (December 20, 2018) at 7). The Program Administrators propose to allocate all EM&V costs to a new Evaluation and Market Research line item under the hard-to-measure category rather than to allocate these costs to individual programs (Statewide Plan, Exh. 1, at 134-135; App. C (Rev.) (December 20, 2018)).

The Program Administrators state that, together with the EM&V consultant, they have established an Evaluation Management Committee to serve as a steering committee for

[14] The Program Administrators state that certain studies may be cross-sector (i.e., study both the residential and C&I sectors) (Statewide Plan, Exh. 1, at 175).

statewide evaluation issues, provide guidance and direction to each of the evaluation research areas, and assist in setting research priorities (Statewide Plan, Exh. 1, at 175). Finally, the Program Administrators state that, together with the Evaluation Management Committee, they have developed a strategic evaluation plan that will serve as a long-term planning document to guide evaluation activities in the 2019 through 2021 Three-Year Plan term (Statewide Plan, Exh. 1, at 176, App. S at 4).

C. Positions of the Parties

1. Program Administrators

The Program Administrators submit that, consistent with G.L c. 25, § 21(b)(1), the Three-Year Plans include savings goals that are designed to achieve all available cost-effective energy efficiency and demand reduction measures for the three-year period beginning January 1, 2019 (Program Administrators Brief at 12). The Program Administrators contend that the savings goals in the proposed Three-Year Plans take into consideration a variety of complex factors, including service territory-specific characteristics, technical innovations, bill impacts, economic and environmental benefits, cost efficiency, and the need to establish integrated efforts that can be sustained over time (Program Administrators Brief at 12). The Program Administrators argue that the Three-Year Plans include aggressive savings goals, even as energy efficiency markets are becoming saturated and baselines for claimable savings increase (Program Administrators Brief at 12, citing Statewide Plan, Exh. 1, at 13).

The Program Administrators maintain that they engaged in a highly collaborative planning process and relied on Council and stakeholder input, as well as the results of multiple studies and analyses, to arrive at their final savings goals (Program Administrators Brief at 13). In addition, in compliance with the Department's directives, each Program Administrator maintains that it conducted a potential study for its service territory (Program Administrators Brief at 13, citing Statewide Plan, Exh. 1, App. N; 2016-2018 Three-Year Plans Order, at 25). The Program Administrators assert that they coordinated extensively in the development of each potential study, made the studies publicly available, and shared the study results with the Council (Program Administrators Brief at 13, citing Exh. DPU-Comm 9-3; Tr. 1, at 91-92). In response to CLF's assertion that the gas Program Administrators did not develop a gas demand response program, the gas Program Administrators argue that, based on the results of pilot programs in other states, an analysis of gas demand response (either as part of the potential studies or as a demonstration offering) would not be cost effective (Program Administrators Reply Brief at 11-12, citing Exhs. DPU-Gas 1-1; DPU-Gas 2-1, DPU-Gas 2-2; Tr. 1, at 95-96).

The Program Administrators argue that any requirement to use uniform methods and definitions in future potential studies, as recommended by CLF and Acadia, would dilute the service-territory specific purpose of such studies (Program Administrators Brief at 14-15, citing Exh. DPU-Comm 9-3; Tr. 1, at 87-93; Program Administrators Reply Brief at 16-17, citing Exh. DPU-Comm 9-3). The Program Administrators assert that different assumptions and methods are essential to ensure that the potential studies produce actionable information

based on each Program Administrator's unique service-territory characteristics (Program Administrators Reply Brief at 18).

The Program Administrators recommend that the Department approve the active demand reduction offerings, asserting that the active demand reduction proposals are consistent with the Green Communities Act and the goal of pursuing all cost-effective demand reduction resources (Program Administrators Brief at 25, Program Administrators Reply Brief at 11). The Program Administrators assert that the proposed active demand reduction offerings were unanimously supported by the Council and draw on lessons learned from demonstration projects and demand reduction experts (Program Administrators Brief at 22; Program Administrators Reply Brief at 9). The Program Administrators argue that their proposed pay-for-performance approach ensures customers are paid for verifiable demand reductions (Program Administrators Reply Brief at 10).

The Program Administrators maintain that the proposed active demand reduction offerings are appropriately designed and that implementation can begin upon Department approval (Program Administrators Brief at 25; Program Administrators Reply Brief at 10). The Program Administrators contend, however, that certain implementation and contract details cannot be finalized until the offerings are approved (Program Administrators Brief at 25; Program Administrators Reply Brief at 10-11). In particular, the Program Administrators maintain that for the residential storage performance offering, implementation efforts including assessing the cost efficiency of investing in the application program interface ("API") integration necessary to dispatch each type of storage system at scale cannot begin

until Department approval (Program Administrators Brief at 25; Program Administrators Reply Brief at 11). In this regard, the Program Administrators contend that PowerOptions incorrectly relied on evidence related to APIs for the proposed statewide residential storage offering in support of its faulty assertion that the proposed C&I storage performance offerings are not yet developed[15] (Program Administrators Reply Brief at 11 n.11). Finally, the Program Administrators contend that additional residential storage systems will be installed as a result of the proposed storage performance offering and, therefore, the acquisition of APIs for most storage system types will be a prudent expenditure (Program Administrators Brief at 25).

The Program Administrators contend that their proposed EM&V framework appropriately employs strategies, study areas, budgets, and stakeholder roles that satisfy the Department's precedent and Guidelines (Program Administrators Brief at 48-49, citing Exh. 1, at 175-177, App. S; 2016-2018 Three-Year Plans Order, at 30; 2013-2015 Three-Year Plans Order, at 59; Guidelines § 3.5). Finally, the Program Administrators argue that their proposal to allocate all EM&V costs to a new line item under the hard-to-measure category rather than to allocate these costs to individual programs better reflects the reality that the benefits of EM&V efforts are often applicable to multiple programs (Program Administrators Brief at 37).

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15 The Program Administrators note that the dispatch of C&I storage under the proposed active demand reduction offerings does not require APIs (Program Administrators Brief at 25 n.15).

2. Attorney General

The Attorney General asserts that the aggregate electric savings goal is both ambitious and aggressive, at 2.70 percent of retail electricity sales (Attorney General Brief at 6). Similarly, the Attorney General argues that the aggregate gas savings goal of 1.25 percent of retail gas sales is a steady and proportionate increase in gas savings from the previous three-year term (Attorney General Brief at 9). The Attorney General concludes that the savings goals and the proposed budgets designed to meet these goals appropriately balance the achievement of all cost-effective energy efficiency, achievement of environmental goals, and customer rate impacts (Attorney General Brief at 10). Finally, the Attorney General maintains that she supports the new strategies proposed by the Program Administrators to capture active peak demand reduction (Attorney General Brief at 2).

3. Department of Energy Resources

DOER opines that the Statewide Plan shows a willingness on the part of the Program Administrators to adapt to a changing regulatory landscape and the evolving needs of energy consumers in Massachusetts (DOER Brief at 8). In particular, DOER notes that the electric Program Administrators have committed to a nation-leading 2.70 percent savings goal and have proposed new initiatives that align with the 2018 Energy Act (DOER Brief at 8).

DOER maintains that the aggressive savings goals in the Statewide Plan are expected to deliver more than 35.6 million megawatt-hour (“MWh”) in lifetime electric savings and more than 1.19 billion therms in lifetime gas savings (DOER Brief at 9). DOER asserts that the total MMBtu savings of 261.9 million are estimated to deliver more than $8.56 billion in

benefits, which is more than three dollars in benefits for every dollar invested (DOER Brief at 9).

In addition, DOER asserts that it strongly supports the energy savings goals in the Program Administrators' Three-Year Plans (DOER Brief at 8-9). DOER recognizes that much of the "low-hanging fruit" in energy efficiency has been captured over the past decade and concludes that the proposed savings goals will achieve all cost-effective energy efficiency at a cost that is significantly less than the avoided cost of supply (DOER Brief at 9).

DOER supports the active demand reduction offerings proposed by the Program Administrators (DOER Brief at 13). DOER asserts that the offerings are cost effective and will benefit customers during both summer and winter periods of peak demand when energy costs are highest (DOER Brief at 13). In addition, DOER contends that the proposed active demand reduction offerings align with the Commonwealth's policy goals of reducing costs and increasing reliability through reductions in summer and winter peak demand (DOER Brief at 13). Finally, DOER maintains that the proposed active demand reduction offerings have been appropriately designed to ensure that participation and savings will be realized during the 2019-2021 Three-Year Plan term by drawing on the experience of earlier demonstration projects and DOER's peak demand reduction grant projects, as well as stakeholder input (DOER Brief at 13; DOER Reply Brief at 2).

4. Acadia Center

Acadia argues that the potential studies conducted by the Program Administrators used multiple methods and reporting formats, rendering the studies "essentially useless" (Acadia

Brief at 24). Accordingly, Acadia requests the Department to direct the Program Administrators to adopt a uniform research method for future potential studies, with common definitions and assumptions, but allowing for service territory-specific differences within the common framework (Acadia Brief at 24-25). In addition, Acadia argues that the Department should set a deadline for the completion of such studies so that the Council and stakeholders can conduct a meaningful review of the studies (Acadia Brief at 24-25).

In addition, Acadia argues that there is a disconnect between untapped savings potential and certain Program Administrator's proposed savings goals (Acadia Brief at 25). Specifically, Acadia argues that both Liberty and Unitil (gas) have proposed savings goals that are sizably lower than the statewide average savings goal and do not correspond to the untapped potential in their respective service territories (Acadia Brief at 25-26, citing Statewide Plan, Exh. 1, App. F). In addition, Acadia argues that Liberty and Unitil (gas) have failed to propose any unique programs to address the barriers to achieving the untapped savings potential in their service territories (e.g., programs to address high concentrations of renters and moderate-income customers) (Acadia Brief at 26). Acadia recommends that the Department require these Program Administrators to revise their proposed savings goals to reflect all untapped potential (Acadia Brief at 26).

Acadia recommends that the Department approve the proposed statewide active demand reduction offerings (Acadia Brief at 11). Acadia argues that the active demand reduction offerings are consistent with Council priorities and recent amendments to the Green Communities Act that underscore the importance of energy storage and active demand

(Acadia Brief at 11). Acadia also maintains that the proposed active demand reduction offerings appropriately draw from demonstration projects undertaken between 2016 through 2018, and are consistent with the Department's stated expectation that Program Administrators would implement a statewide active demand reduction offering as soon as possible (Acadia Brief at 10-11, citing 2016-2018 Three-Year Plans Order, at 142-143).

5. Conservation Law Foundation

CLF acknowledges that the Three-Year Plan shows progress toward ensuring equitable access to energy efficiency resources by underserved communities (CLC Brief at 21-22). CLF asserts, however, that the Program Administrators should be required to provide more details regarding the following: (1) the partnership strategy; (2) marketing for hard-to-reach customers; (3) language accessibility; (4) serving moderate-income households; and (5) reaching renters and rental units (CLF Brief at 20-32). CLF acknowledges that certain Program Administrators' marketing strategies targeting hard-to-reach customers are more costly than previous marketing efforts, but it argues that these investments are necessary to overcome participation barriers (CLF Brief at 22-23). In addition, CLF asserts that the Program Administrators should consult with state and municipal officials to expand the language offerings for energy efficiency program marketing (CLF Brief at 23-24).

To address participation in underserved communities, CLF argues that the Program Administrators should be required to develop strategies to remove barriers to participation (CLF Brief at 20). For example, CLF asserts that the Three-Year Plan does not include any significant new offerings to address pre-weatherization barriers for moderate-income

households (CLF Brief at 25-26). In future three-year plans, CLF suggests that the Program Administrators consider ways to eliminate pre-weatherization barriers as part of measure delivery, instead of relying solely on HEAT Loan financing options (CLF Brief at 26-27).

In addition, CLF argues that future potential studies should be conducted using a centralized process that is overseen by a third-party (CLF Brief at 42). Alternatively, if the Program Administrators are permitted to continue to conduct their own potential studies, CLF argues that the Department should require the Program Administrators to use a common outline, format, and definitions (CLF Brief at 39-40, 42). CLF asserts that such consistency will facilitate stakeholder review of the studies (CLF Brief at 39). CLF also asserts that the Program Administrators should consult more frequently with the Council when preparing and reviewing potential studies (CLF Brief at 40).

While CLF does not oppose the proposed statewide active demand reduction offerings, it contends that the statewide offering is less robust than the Compact's proposed storage offering (CLF Brief at 46). CLF recommends that the Department require all Program Administrators to adopt an approach similar to the Compact's, should the Compact's storage offering prove successful (CLF Brief at 47). Finally, CLF argues that the gas Program Administrators have offered insufficient evidence to support their decision not to include gas demand response offerings in their Three-Year Plan (CLF Brief at 47).

6. PowerOptions

PowerOptions appreciates the Program Administrators efforts to address certain underserved markets, such as small businesses and renters (PowerOptions Brief at 5).

PowerOptions argues, however, that the Three-Year Plans do not adequately address non-profit entities (PowerOptions Brief at 4). In particular, PowerOptions asserts that the Statewide Plan contains only two brief references to addressing barriers in serving non-profits (PowerOptions Brief at 5-6, citing Statewide Plan, Exh. 1, at 98, 116)). PowerOptions recommends that Program Administrators develop formal marketing strategies and partnerships within the non-profit community to disseminate information about energy efficiency financing tools for non-profits (PowerOptions Brief at 6-7).

PowerOptions asserts that it generally supports the proposed active demand reduction offerings, particularly the winter active demand reduction target (PowerOptions Brief at 8). However, PowerOptions raises concerns with respect to the lack of detail provided for the C&I storage performance offering (PowerOptions Brief at 9). PowerOptions asserts that, without more program design details, it is impossible for the Department and stakeholders to fully evaluate the effectiveness of the offering (PowerOptions Brief at 9). Therefore, PowerOptions argues that the Department should require the Program Administrators to provide more details on the proposed C&I storage performance offering in order to fully evaluate the proposal (PowerOptions Brief at 9, 13).

D. Analysis and Findings

1. Savings Goals

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

savings in order to evaluate the degree to which the proposed Three-Year Plans achieve their stated goal of reducing energy usage.

The Statewide Plan contains aggregate electric and gas savings goals, as well as individual savings goals for each electric and gas Program Administrator (Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). 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 of the Statewide Plan (i.e., savings goals, program budgets, and performance incentives) as reflected in the Term Sheet (Statewide Plan, Exh. 1, at 21, 151, App. F). Before the individual Three-Year Plans were filed with the Department, the Council endorsed the savings goals in the Statewide Plan as meeting the Green Communities Act's requirement to achieve all available, cost-effective energy efficiency (Statewide Plan, Exh. 1, at 22, App. G). In addition, the Council supported the individual Program Administrator's savings goals to the extent they are consistent with the Statewide Plan (Statewide Plan, Exh. 1, Apps. F, G).

Acadia asserts that Liberty and Unitil (gas) have proposed savings goals that are lower than the statewide average (Acadia Brief at 25-26). Acadia recommends that the Department require these Program Administrators to modify their savings goals to reflect untapped potential in their service territories (Acadia Brief at 25). Conversely, the Program Administrators maintain that Liberty and Unitil (gas) have set appropriately aggressive savings goals that are based on (1) service territory-specific potential studies, (2) unique characteristics of each Program Administrator's customer base, (3) program design costs,

(4) market conditions, and (5) labor and workforce availability (Program Administrators Reply Brief at 27).

Contrary to Acadia's assertions, the Department finds that each Program Administrator provided a reliable potential study, using valid research methods consistent with Department directives[16] (Statewide Plan, Exh. 1, Apps. F, N). Liberty's potential study presents achievable savings between 0.52 and 0.65 percent of retail sales over the term of its Three-Year Plan (Statewide Plan, Exh. 1, App. N-Liberty, at 9-10; App. F at 17). Liberty proposes a savings goal of 0.58 percent of retail sales (Statewide Plan, Exh. 1, App. N-Liberty, at 9-10). Similarly, the potential study of Unitil (gas) presents achievable savings between 0.71 and 0.86 percent of retail sales over the term of its Three-Year Plan (Statewide Plan, Exhs. 1, App. N-Unitil (Gas) at 9-10; App. F at 6, 47; DPU-Unitil (Gas) 1-3). Unitil (gas) proposes a savings goal of 0.78 percent of retail sales (Statewide Plan, Exhs. 1, App. N-Unitil (Gas) at 9-10; App. F at 6, 47; DPU-Unitil (Gas) 1-3). The Department finds that Liberty and Unitil (gas) have proposed savings goals that are both appropriate and aligned with their potential study findings.

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 to the endorsement by the Council of the savings goals in the Statewide

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[16] Proposed improvements to future potential studies are addressed in Section III.D.4, below.

Plan and the individual savings goals in the Three-Year Plans. 2016-2018 Three-Year Plans Order, at 23. After review, the Department finds that the statewide and individual Program Administrator savings goals developed through this process appropriately take into consideration program sustainability and territory-specific savings drivers (Statewide Plan, Exh. 1, at 144-151, App. N; Exhs. BGC-2, at 55-57, 64-66; CMA-2, at 60-61, 66-70; FGE (gas)-2, at 59-61, 66-74; LU-2, at 55-57, 62-66; NG-Gas-2, at 63-65, 71-72; Eversource Energy (gas)-2, at 56-57, 63-65; Compact-2, at 64-66; 103-105; FGE (electric)-2, at 71-72, 78-86; NG-Electric-2, at 76-78, 84-86; Eversource Energy (electric)-2, at 70-71, 77-79). Further, the Department finds that the aggregate and individual gas and electric savings goals are consistent with the achievement of all available cost-effective energy efficiency (Statewide Plan, Exh. 1, at 144-151, App. N). Accordingly, the Department approves the statewide and individual Program Administrator savings goals. Going forward, in future three-year plans filings, any Program Administrator-specific programming included as part of the Statewide Plan should also indicate the incremental budget and projected savings, broken down by rate class and category, relative to the Statewide Plan.

2. Active Demand Reduction Offerings

a. Introduction

The electric Program Administrators propose statewide active demand reduction offerings, for the first time, as part of their 2019-2021 Three-Year Plans. These proposed offerings and the associated savings goals were developed through a collaborative process and

endorsed by the Council (Statewide Plan, Exh. 1, at 22, App. G). Furthermore, Acadia, the Attorney General, CLF, DOER, and PowerOptions support the proposed statewide active demand reduction offerings (see Acadia Brief at 11; Attorney General Brief at 2; CLF Brief at 46; DOER Brief at 13; PowerOptions Brief at 8).

The proposed active demand reduction offerings are generally consistent with the Department's expectation that the Program Administrators would leverage the results of the demand response demonstration projects approved as part of the 2016-2018 three-year plans to support the deployment of cost-effective demand response offerings at scale. 2016-2018 Three-Year Plans Order, at 142-143. For example, the proposed residential direct load control, C&I interruptible load curtailment, and targeted storage offerings were informed by the Compact's and National Grid (electric)'s existing demand response demonstration projects (Exhs. DPU-Electric 2-2; DPU-Electric 2-4).

With certain exceptions and modifications addressed below, the Department approves the Program Administrators' proposed statewide active demand reduction offerings. These active demand reduction offerings and associated demand reduction savings goals were developed through a collaborative process between the Program Administrators and the Council that culminated in the unanimous endorsement of the Council (Statewide Plan, Exh. 1, App. G). Accordingly, the Department finds that the proposed statewide active demand reduction offerings and attendant demand reduction savings goals are reasonable and consistent with the achievement of all available cost-effective demand reduction. G.L. c. 25, § 21(b)(1).

National Grid (electric) proposes a program to allow customers with electric vehicles ("EV") to pause or shift charging during system peak periods that is designed to operate like the statewide active demand initiatives (Exhs. 1, App. K (National Grid (electric)) at 2-3). In addition, NSTAR Electric proposes to undertake EV load management research and development ("R&D")[17] (Statewide Plan, Exh. 1, App. K (NSTAR Electric) at 1-2; Exhs. DPU-NSTAR Electric 5-1 through 5-5; Tr. 1, at 19-21). No party addressed these proposals on brief.

After review, the Department finds that the National Grid (electric) and NSTAR Electric active demand reduction proposals are reasonable and consistent with the statewide active demand reduction programs approved above. Therefore, we approve the National Grid (electric) and NSTAR Electric active demand reduction programs. NSTAR Electric shall identify its EV load management R&D as a separate item and include updates on its progress in EV load management R&D (including the evaluation results) in its Annual Reports and Term Report.

b. Daily Dispatch

The Department is concerned with the lack of support (e.g., research papers, analysis, pilot program results) offered by the Program Administrators for the proposed deployment of the two statewide daily dispatch offerings (i.e., residential storage performance and C&I storage performance (daily dispatch)) (see, e.g., Exhs. DPU-Electric 2-4; DPU-Electric 6-2;

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[17] The purpose of EV load management R&D is to understand how customers react to different incentive structures and EV load management strategies (Statewide Plan, Exh. 1, App. K at 1-2).

Tr. 1, at 26, 33). Although NSTAR Electric is currently testing the daily dispatch of storage through a Department-approved demonstration offering,[18] it acknowledges that the results of that demonstration offering may not inform a residential daily dispatch offering given the material differences between the two offerings (Tr. 1, at 28-32).

While the Department appreciates the desire of the electric Program Administrators to provide innovative active demand reduction offerings to their customers, we are not persuaded by the evidence presented here that a statewide deployment of an untested form of dispatch is an appropriate use of ratepayer funds. Accordingly, the Department does not approve a full-scale deployment of the proposed daily dispatch offerings (i.e., residential storage performance, and C&I storage performance (daily dispatch)).

Nonetheless, the Department finds merit in exploring the potential for daily dispatch, particularly at the residential level. Accordingly, each electric Program Administrator may use a portion of the proposed budget allocated to the daily dispatch offerings to design demonstration offerings to test the daily dispatch of storage.[19] The goal of such demonstration offerings should be to support the potential launch of wide-scale, statewide daily dispatch offerings for residential and/or C&I customers, where cost effective, later in the 2019-2021 Three-Year Plan term. In addition, the electric Program Administrators may

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18 See NSTAR Electric Company and Western Massachusetts Electric Company, D.P.U. 16-178, at 44 (2017).

19 The electric Program Administrators shall coordinate with the Council and each other regarding the design of any such demonstration offerings so as not to unnecessarily duplicate research imminently undertaken by the other electric Program Administrators.

use the evaluated results of NSTAR Electric's demonstration offering, when available, in D.P.U. 16-178, to inform a proposed wide-scale C&I daily dispatch offering for deployment later in the 2019-2021 Three-Year Plan term.

Such an approach is consistent with the Program Administrators' proposal to ramp up their daily dispatch offerings over the Three-Year Plan term (see e.g., Tr. 1, at 27; Exh. Eversource Energy (electric)-5 (Rev.) (December 20, 2018)). Further, this approach appropriately considers the ability of a daily dispatch offering to deliver cost-effective benefits to customers prior to a statewide deployment. D.P.U. 16-178, at 25-26.

The Program Administrators shall update the Council on the results of any daily dispatch demonstration offerings.[20] To the extent that the Program Administrators determine that the results of any additional demonstration offerings or NSTAR Electric's demonstration offering in D.P.U. 16-178 support cost-effective statewide offerings for residential and/or C&I customers, the Program Administrators shall seek Council approval to implement such offerings. Subsequently, the Program Administrators shall submit a compliance filing to the Department describing the proposed offering(s) and budget(s). Absent approval from the Department, the total budget for such offerings (i.e., demonstration offering budget plus statewide program budget) shall not exceed the planned budget allocated to the proposed residential storage performance and C&I storage performance (daily dispatch) offerings in these proceedings.

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[20] In addition, each electric Program Administrator shall provide an update to the Department on the status of any daily dispatch demonstration offerings as part of its Annual Report.

Alternatively, the electric Program Administrators may allocate the planned budget for the daily dispatch offerings to targeted dispatch offerings for residential and C&I customers. If the Program Administrators do not use the budget allocated for the proposed daily dispatch offerings to fund either a small-scale demonstration offering to test daily dispatch or a targeted storage offering in lieu of the daily dispatch offerings, the funds may not be reallocated to any other measure.

c. Incentive Structure

The electric Program Administrators propose to offer performance-based incentives for each active demand reduction offering (see, e.g., Exh. Eversource Energy (electric)-2, at 57). The Program Administrators also seek Department approval to enter into five-year commitments to provide such incentives to customers that install new storage systems under these offerings (see, e.g., Exh. Eversource Energy (electric)-2, at 61-62).

The Department agrees with the Program Administrators' assessment that pay-for-performance incentives appropriately protect ratepayers because incentives will only be paid for actual performance (see, e.g., Exh. Eversource Energy (electric)-2, at 64). In addition, the Department finds that, in light of the significant upfront investment required for storage, a longer-term commitment to provide incentives is appropriate (see, e.g., Exh. Eversource Energy (electric)-2, at 61-62). Accordingly, the Department approves the electric Program Administrators' proposal to enter into five-year commitments to provide performance-based incentives to customers installing new storage systems. As part of the evaluation process, the electric Program Administrators shall assess the efficacy of the

five-year incentive commitment and whether, as increasing amounts of storage are deployed, a five-year commitment continues to be warranted.

Finally, the Department notes that the C&I storage performance offering has a significantly higher incentive level than the C&I interruptible load curtailment offering for the same service (see Statewide Plan, Exh. 1, at 123). Given the nascent state of energy storage deployment in the Commonwealth, the Department finds the higher incentive for the C&I storage performance offering appropriate at this time. However, as deployment of energy storage systems increases and storage costs decline, the electric Program Administrators shall review the incentive levels and adjust them accordingly to minimize bill impacts and ensure ratepayer dollars are spent prudently.

3. Evaluation, Measurement, and Verification

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. 2016-2018 Three-Year Plans Order, at 30; 2013-2015 Three-Year Plans Order, at 58; 2010-2012 Electric Three-Year Energy Efficiency Plans, D.P.U. 09-116 through D.P.U. 09-120, at 125 (2010) ("2010-2012 Electric Three-Year Plans Order"); 2010-2012 Gas Three-Year Energy Efficiency Plans, D.P.U. 09-121 through D.P.U. 09-128, at 115 (2010) ("2010-2012 Gas Three-Year Plans Order"). The Department's Guidelines 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. Guidelines § 3.5.2; see also, G.L. c. 25, § 21(b)(2).

The Program Administrators propose a budget of $71.9 million to fund statewide EM&V activities during the Three-Year Plan term (Statewide Plan, App. C - Electric (Rev.) (December 20, 2018) at 12; App. C - Gas (Rev.) (December 20, 2018) at 7; App. S at 4). The Program Administrators' proposed EM&V framework includes the following elements: (1) three EM&V research areas (i.e., residential, C&I, and special and cross-cutting); and (2) eight types of EM&V studies (i.e., impact evaluations, baseline studies, net-to-gross studies, market effects evaluations, NEI studies, cost and measure life studies, market characterization studies, and process evaluations) (Statewide Plan, App. C - Electric (Rev.) (December 20, 2018) at 12; App. C - Gas (Rev.) (December 20, 2018) at 7; App. S at 4). The Program Administrators have created a strategic evaluation plan to identify evaluation priorities for the upcoming term and the Evaluation Management Committee will provide oversight of the EM&V activities (Statewide Plan, App. C - Electric (Rev.) (December 20, 2018) at 12; App. C - Gas (Rev.) (December 20, 2018) at 7; App. S at 4).

The Program Administrators have demonstrated that their proposed EM&V framework is appropriate in terms of funding, scope, oversight and planning (Statewide Plan, Exh. 1, at 174-178; App. C (Rev.) (December 20, 2018); App. S). Accordingly, the Department finds that the proposed EM&V framework is consistent with the Green Communities Act, Department precedent, and Guidelines. G.L. c. 25, § 21(b)(2); Guidelines § 3.5. Further, because the Program Administrators have shown that EM&V efforts often apply to multiple programs, the Department approves the Program Administrators' proposal

to allocate EM&V costs to a single line item under the hard-to-measure category (Statewide Plan, Exh. 1, at 134-135; App. C (Rev.) (December 20, 2018)).

4. Future Potential Studies

In 2016-2018 Three-Year Plans Order, at 25, the Department directed the Program Administrators to conduct an analysis of the remaining cost-effective energy efficiency potential in their service territories every three years. Each Program Administrator conducted an energy efficiency potential study consistent with the Department's directives.

Acadia and CLF assert that inconsistent study methods and formatting of the potential studies hindered stakeholders' ability to provide input during the planning process for the Three-Year Plans (Acadia Brief at 24; CLF Brief at 39). To address this issue, CLF argues that future potential studies should be centralized and overseen by a third-party (CLF Brief at 42). Alternatively, CLF and Acadia recommend that future potential studies (1) use consistent methods, definitions, and formatting, and (2) be completed on a set deadline (Acadia Brief at 24-25; CLF Brief at 39-42).

In response, the Program Administrators maintain that uniformity in potential studies would dilute the value of the studies for each individual Program Administrator (Program Administrators Reply Brief at 15-16). The Program Administrators maintain, however, that it would be possible to conduct potential studies in a manner that allows for individualized analyses of each service territory while presenting the findings in a uniform manner using common definitions (Program Administrators Reply Brief at 18, citing Tr. 1, at 87).

The Department appreciates the efforts of each Program Administrator to complete its potential study in compliance with Department directives. We agree, however, that the current approach to conducting potential studies can be refined. Each Program Administrator has a unique service territory with different customer characteristics and economic landscapes that require individualized potential studies in order to evaluate the remaining energy efficiency potential in the face of unique challenges (Statewide Plan, Exh. 1, at 147-148; Tr. 1, at 88-90). Although we will not require third-party oversight as recommended by CLF, the individualized potential studies should demonstrate consistency among the Program Administrators in terms of timing, formatting, and definitions to enhance their value to the Department and stakeholders.

For all future potential studies, the Program Administrators shall (1) coordinate studies to present findings using common definitions for the various levels of achievable potential, such that the study results are comparable, and (2) with input from the Council, establish a common study deadline to submit final potential study results. Finally, as part of its next three-year plan filing, each Program Administrator shall include detailed testimony and exhibits addressing how the findings of its potential study were used to inform the development of its savings goal during the energy efficiency planning process.

5. Strategic Enhancements and New Technologies

As part of their Three-Year Plans, the Program Administrators propose to implement a number of strategic enhancements to each core initiative aimed at new technologies

(Statewide Plan, Exh. 1, at 29-31).[21] In addition, the Three-Year Plans include several enhancements designed to address residential sector barriers, including (1) an enhanced home weatherization program; (2) special attention to moderate-income customers, renters, and customers with language barriers; (3) updated residential and new home offerings, including a passive house offering; (4) a new municipal and community partnership strategy; and (5) a temperature optimization program (Statewide Plan, Exh. 1, at 33-37, 55, 42-43, 69-70; Exhs. DPU-Comm 6-1; DPU-Comm 6-2).

The Three-Year Plans also include several enhancements designed to address C&I sector barriers, including (1) an enhanced new construction and major renovations initiative, (2) an enhanced building retrofit program with a focus on HVAC optimization and small business engagement, (3) educational offerings for additional outreach to municipalities, and (4) customized services for franchise businesses (Statewide Plan, Exh. 1, at 82, 91-99, 104-105, 107). Finally, as addressed above, NSTAR Electric and National Grid (electric) have each proposed to implement demand response demonstration offerings to evaluate the opportunities, benefits, and cost effectiveness of demand response potential in their service areas[22] (Statewide Plan, Exh. 1, App. K).

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[21] In coordination with LEAN and the Massachusetts Technical Assessment Committee, the Program Administrators state that they will continue to assess new technologies in order to ensure that only proven technologies are offered through the energy efficiency programs (Statewide Plan, Exh. 1, at 73).

[22] The Compact's proposed demand response demonstration offering is addressed in Section VIII, below.

CLF argues that the gas Program Administrators have offered insufficient evidence to support their decision not to include gas demand response offerings in their Three-Year Plans (CLF Brief at 47). In response, the gas Program Administrators argue that, based on the results of pilot programs in other states, an analysis of gas demand response (either as part of the potential studies or as a demonstration offering) would not be cost effective (Program Administrators Reply Brief at 11-12; Exhs. DPU-Gas 1-1; DPU-Gas 2-1, DPU Gas 2-2; Tr. 1, at 95-96).

The Department finds that the gas Program Administrators have submitted adequate evidence to support their decision not to offer a full-scale demand response program at this time (Exhs. DPU-Gas 1-1; DPU-Gas 2-1, DPU-Gas 2-2; Tr. 1, at 95-96). We find, however, that the Program Administrators have not convincingly shown that further exploration into potential savings from gas demand response is unsuitable. We note that the Program Administrators testified that they foresee no specific obstacles to further study of gas demand response and would consider conducting such analysis as part of future potential studies (Tr. 1, at 96-97). Accordingly, the Department directs the gas Program Administrators to continue to review the potential for cost-effective savings from gas demand response offerings. As part of its next three-year plan filing, each gas Program Administrator shall include detailed testimony and exhibits addressing such study and the feasibility of gas demand response offerings.

In consideration of our findings with respect to participation barriers in Section III.D.6 below, the Department finds that the Three-Year Plans appropriately incorporate

strategic enhancements (1) aimed at new technologies, and (2) designed to address participation barriers in order to ensure that the Three-Year Plans will provide 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).

6. Participation Barriers

As described in Section III.B above, the Three-Year Plans include several proposed enhancements designed to address both residential and C&I sector barriers. The Program Administrators maintain that these proposals are based on the experience they have gained from past efforts to better serve hard-to-reach customers, including renters, moderate income customers, non-English speaking customers, and non-profits (Program Administrators Reply Brief at 7-9, citing Statewide Plan, Exh. 1, at 28, 35-37, 52, 56, 95-102, 116).

In addition to offering several recommended improvements, CLF argues that the Program Administrators should be required to provide more information about the proposed residential enhancements (CLF Brief at 20-32). With respect to the C&I enhancements, PowerOptions recommends that the Program Administrators should be required to develop marketing strategies and partnerships within the non-profit community (PowerOptions Brief at 4, 6-7). In response, the Program Administrators assert that the Statewide Plan is not an implementation manual, but rather a strategic plan that provides them with the flexibility to respond to changing circumstances and input from stakeholders (Program Administrators Reply Brief at 9, citing Statewide Plan, Exh. 1, at 12).

One important way that the Program Administrators propose to improve community-wide engagement and gain better insights into underserved customers is through their new municipal and community partnership strategy (Statewide Plan, Exh. 1, at 35-36). This residential enhancement is intended to build stronger relationships with local governments in order to leverage their valuable knowledge and connections, facilitate outreach and awareness, and obtain feedback on strategies to reach underserved populations (Statewide Plan, Exh. 1, at 35-36). The Department notes that the municipal and community partnership strategy was under development when the Three-Year Plan was filed; the Program Administrators state that it will not be fully implemented until the third or fourth quarter 2019 (Exh. DPU-Comm 6-1). The Department encourages the Program Administrators to work with CLF and other stakeholders to incorporate their input as the municipal community partnership strategy is finalized and deployed. Likewise, the Department encourages the Program Administrators to work with PowerOptions to determine if improved marketing strategies will better reach the non-profit community.

As part of its 2019 Annual Report, each Program Administrator shall include an update on the implementation of the various enhancements designed to address residential and C&I sector barriers, including the municipal and community partnership strategy. Finally, with regard to CLF's specific recommendations regarding pre-weatherization barriers, the Department notes that the Program Administrators have identified pre-weatherization costs as a barrier and have proposed to mitigate this barrier through the customization of in-home assessments and expanding the allowable financing for pre-weatherization costs (Statewide

Plan, Exh. 1, at 34, 48, 53-55, 131-132). The Department encourages the Program Administrators, in the development of their next three-year plans, to continue to explore innovative strategies to address pre-weatherization barriers for customers, including moderate-income households.

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. With the exception of the statewide deployment of daily dispatch (i.e., residential storage performance offering, and the C&I storage performance offering (daily dispatch)), the Department approves each electric Program Administrator's[23] proposed statewide active demand reduction offerings as consistent with the achievement of all available cost-effective demand reduction. The Program Administrators shall comply with the directives contained herein regarding the alternate use of the funds allocated to the proposed daily dispatch storage performance offerings.

Further, the Department finds that the Program Administrators have appropriately incorporated strategic enhancements to the residential and C&I programs that are designed to incorporate new technologies and address various barriers to participation in energy efficiency programs. Over this and future three-year plans terms, the Department encourages the Program Administrators to continue to explore and implement strategies to better reach

23 Prior to implementing any statewide active demand reduction offerings, the Compact must comply with all directives contained in Section VIII, below.

underserved populations and hard-to-reach customers, including renters, moderate income customers, non-English speaking customers, and non-profits.

IV. ADMINISTRATIVE COSTS, COMPETITIVE PROCUREMENT, AND LOW-INCOME ALLOCATION

A. Introduction

In reviewing the Three-Year Plans, 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, each Program Administrator must demonstrate that it has allocated at least ten percent of the funds for electric energy efficiency programs and 20 percent of the funds for gas energy efficiency programs to the low-income sector. G.L. c. 25, § 19(c).

B. Program Administrators Proposal

1. Minimization of Administrative Costs

The electric Program Administrators propose to spend an average of 4.4 percent of their total energy efficiency expenditures on Program Planning and Administration ("PP&A") over the three-year term (Statewide Plan, Exh. 1, App. C - Electric, Table IV.C.1 (Rev.) (December 20, 2018)). The gas Program Administrators propose to spend an average of 4.0 percent of their total energy efficiency expenditures on PP&A over the three-year term (Statewide Plan, Exh. 1, App. C – Gas, Table IV.C.1 (Rev.) (December 20, 2018)). Each Program Administrator's PP&A costs as a percentage of total program expenditures for

2019 through 2021 are presented in the Gas and Electric Budget Comparison Tables (see, e.g., Statewide Plan, Exh. FGE-4, Table IV.C.2.2 (Rev.) (December 20, 2018)).

2. Competitive Procurement

The Program Administrators use competitive procurement processes to engage energy efficiency 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 158). The Program Administrators state that, where practicable, over the term of the Three-Year Plans, they intend to continue to issue requests for proposals to competitively procure these services in a manner that minimizes costs to ratepayers, while maximizing the associated benefits of those investments (Statewide Plan, Exh. 1, at 158). The Program Administrators do not, however, use competitive procurement to engage certain energy efficiency service providers (e.g., legal services) (Exh. DPU-Comm 8-1).

3. Low-Income Program Budgets

Each Program Administrator included a table in its Three-Year Plan showing the percentage of its energy efficiency program budget that it projects to spend on low-income programs (see, e.g., Exh. 1, App. C, Table V.B (Rev.) (December 20, 2018)). The electric Program Administrators project that they will spend, on average, 11.39 percent of the 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 - Electric, Table V.B (Rev.) (December 20, 2018)). The gas Program Administrators project that they will spend, on average, 21.83 percent of the 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 - Gas, Table V.B (Rev.) (December 20, 2018)). In addition, for each plan year, each Program Administrator projects that it will meet or exceed the applicable statutory minimum on low-income spending (Statewide Plan, Exh. 1, at 157-158).

C. Position of the Program Administrators

1. Minimization of Administrative Costs

The Program Administrators argue that they have minimized administrative costs to the fullest extent practicable (Program Administrators Brief at 38-39, citing Statewide Plan, Exh. 1, at 155-157). In particular, the Program Administrators assert that they engage in a statewide collaborative process that allows them to share costs that would otherwise be borne by each Program Administrator, resulting in economies of scale that reduce costs for each Program Administrator (Program Administrators Brief at 39, citing Statewide Plan, Exh. 1, at 156). In addition, the Program Administrators argue that they carefully track administrative costs and that administrative costs as a proportion of overall spending are projected to remain proportional to the levels of administrative costs in the last two three-year plans (Program Administrators Brief at 41, citing Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018), Table IV.C.2.2).

The Program Administrators maintain that, consistent with the Department's directives in 2016-2018 Three-Year Plans Order, at 42, they have engaged a third-party vendor to prepare a report on the best practices for minimizing administrative costs (Program

Administrators Brief at 40, citing Statewide Plan, Exh. 1, App. P (Best Practices for Minimizing Program Planning and Administrative Costs for the Massachusetts Utilities and Energy Efficiency Services Providers ("PP&A Report")). According to the Program Administrators, the PP&A Report contains the following recommendations: (1) Program Administrators should focus on ways to improve consistency in accounting practices; (2) Program Administrators should seek to streamline the cost reporting and data request processes; (3) Program Administrators should follow cost accounting best practices in allocation, tracking, and control; (4) Program Administrators should seek new ways to minimize the regulatory, collaboration, facilitation, reporting, and ad hoc request burdens without compromising goal attainment; and (5) Program Administrators should implement an annual process to stress-test status quo processes and spending (Program Administrators Brief at 40). The Program Administrators assert that they will use these recommendations during the Three-Year Plan term to assist in their efforts to minimize administrative costs to the greatest extent practicable without negatively affecting program delivery (Program Administrators Brief at 38, citing Statewide Plan, Exh. 1, at 40-41).

2. Competitive Procurement

The Program Administrators argue that they use competitive procurement processes to the fullest extent practicable (Program Administrators Brief at 42-43, citing Statewide Plan, Exh. 1, at 158). Specifically, the Program Administrators maintain that they have competitively procured the following services: (1) energy assessment delivery; (2) quality

control; (3) monitoring and evaluation; (4) potential studies; and (5) marketing (Program Administrators Brief at 42, citing Statewide Plan, Exh. 1, at 158).

The Program Administrators assert, however, that there are certain instances where competitive procurement is not warranted (Program Administrators Brief at 42). For example, with respect to regulatory and legal services, analytical consultants, and certain other experts and service providers, Program Administrators argue that they must retain providers who are uniquely qualified to perform the services (Program Administrators Brief at 42). Further, the Program Administrators contend that there are instances where they have a substantial working relationship with a specific provider who has extensive knowledge of the Program Administrator's operations such that overall costs are minimized (Program Administrators Brief at 42-43).

3. Low-Income Program Budgets

The Program Administrators assert that they have appropriately allocated funding to low-income programs in compliance with G.L. c. 25, § 19(c) (Program Administrators Brief at 41-42, citing Statewide Plan, Exh. 1, at 157-158). In this regard, the Program Administrators maintain that the electric Program Administrators propose to allocate approximately 11.4 percent of the total budget for the three-year term to the low-income residential sector (Program Administrators Brief at 41, citing Statewide Plan, Exh. 1, at 157; App. C - Electric (Rev.), Table V.B.1). Similarly, the Program Administrators maintain that the gas Program Administrators propose to allocate approximately 21.8 percent of the total budget for the three-year term to the low-income residential sector (Program Administrators

Brief at 41, citing Statewide Plan, Exh. 1, at 158; App. C - Gas, Table V.B.1 (Rev.) (December 20, 2018).

In addition, the Program Administrators argue each of their proposed low-income program budget over the Three-Year Plan term either meets or exceeds statutory minimums (Program Administrators Brief at 41). The Program Administrators assert that they will continue to work collaboratively with LEAN to capture all-available cost-effective energy efficiency in the low-income sector (Program Administrators Brief at 41, citing Statewide Plan, Exh. 1, at 32).

D. Analysis and Findings

1. Minimization of Administrative Costs

Consistent with Department Guidelines § 3.3.6, each Program Administrator has included in its Three-Year Plan a description and supporting documentation of the steps it has taken to minimize administrative costs (Statewide Plan, Exh. 1, at 156). As shown in the data tables (i.e., Budget Comparison Table-Three Year Plan vs. Previous Years, Section IV.C - Program Administrator Budgets), each Program Administrator's PP&A costs remain relatively flat as a percentage of its total budget over the 2019-2021 Three-Year Plan term (see, e.g., Exh. FGE-4, Table IV.C.2.2 (Rev.) (December 20, 2018)). In addition, total PP&A costs, as a percentage of the statewide budget, remain proportional to the administrative costs for the prior three-year plan term (Statewide Plan, Exh. 1, App. C, Table IV.C.2.2 (Rev.) (December 20, 2018)).

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 (Statewide Plan, Exh. 1, at 156). The Department fully expects that this collaboration will continue throughout the 2019 through 2021 Three-Year Plan term.

In response to concerns about the overall level of PP&A spending, the Department directed the Program Administrators to engage a consultant to study best practices to minimize such costs. 2016-2018 Three-Year Plans Order, at 42. Consistent with that directive, the Program Administrators recently completed a report that contains several recommendations for minimizing administrative costs (Statewide Plan, Exh. 1, App. P at 18-21). As part of its 2019 Annual Report, each Program Administrator shall explain how it has adopted these recommendations to further minimize administrative costs to the fullest extent practicable.

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 (see, e.g., Exh. FGE-4, Table IV.C.2.2, Table IV.C.-3 (Rev.) (December 20, 2018)). Accordingly, the Department finds that each Program Administrator's Three-Year Plan is designed to minimize administrative costs to the fullest extent practicable consistent with the requirements of G.L. c. 25, §§ 19(a), (b).

2. Competitive Procurement

As noted above, each Program Administrator is required to demonstrate that it has used competitive procurement processes to the fullest extent practicable. G.L. c. 25, §§ 19(a), (b). The Department has consistently found that competitive procurement serves as a means of cost containment and provides an essential, objective benchmark for the reasonableness of the cost of services. 2013-2015 Three-Year Plans Order, at 152. In addition, competitive procurement keeps a consultant or an attorney with an established relationship with a company from taking that relationship for granted. 2013-2015 Three-Year Plans Order, at 152, citing Bay State Gas Company, D.P.U. 12-25, at 186 (2012); Fitchburg Gas and Electric Light Company, D.P.U. 11-01/11-02, at 236 (2011); New England Gas Company, D.P.U. 10-114, at 221 (2011).

For the 2019 through 2021 Three-Year Plans, each Program Administrator has competitively procured a high percentage of its program activities (see, e.g., Exh. FGE-4, Table V.D (Rev.) (December 20, 2018)). 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 158).

There are a limited number of areas where the Program Administrators have decided not to use competitive procurements to engage third-party energy efficiency services, including legal services (Exh. DPU-Comm 8-1). The Program Administrators maintain that their decision not to competitively procure such services is appropriate for several reasons,

including the complexity of issues and specialized knowledge required to address them (Exh. DPU-Comm 8-1). The Department will not make any substantive findings on the reasonableness of the Program Administrators' decision not to competitively procure such services in this Order. Instead, at the time final cost recovery is sought, each Program Administrator will be required to present clear evidence showing the reasonableness of such costs.

This last issue notwithstanding, based on our review of the evidence presented, the Department finds that each Program Administrator's 2019 through 2021 Three-Year Plan is designed to use competitive procurement processes to the fullest extent practicable, consistent with the requirements of G.L. c. 25, §§ 19(a), (b) (see e.g., Exh. FGE-4, Table V.D.1 (Rev) (December 20, 2018)).

3. Low-Income Program Budgets

As shown in the Low-Income Minimum Data Tables, Section V.B - Allocation of Funds, each Program Administrator proposes a low-income program budget that meets or exceeds the statutory minimum over the three-year planning period (see, e.g., Exh. FGE-4, Table V.B (Rev.) (December 20, 2018)). Accordingly, the Department finds that each Program Administrator has satisfied the low-income budget requirements of G.L. c. 25, § 19(c).

E. Conclusion

Based on our review, the Department concludes that each Program Administrator's 2019 through 2021 Three-Year Plan is designed to minimize administrative costs and use

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 each area where a Program Administrator has not competitively procured outside services, it will be required to present clear evidence demonstrating that such costs are reasonable prior to final cost recovery. In addition, the Department finds that each electric and gas Program Administrator has proposed to spend at least ten percent and 20 percent of its energy efficiency program budget over the three-year planning period, respectively, on low-income demand-side management and education programs, in compliance with G.L. c 25, § 19(c).

V. COST EFFECTIVENESS

A. Introduction

The Department is required to review the Three-Year Plans for cost effectiveness. G.L. c. 25, § 21(b)(3). This review ensures that the Three-Year Plans are designed to capture energy savings and other benefits with values greater than costs. G.L. c. 25, § 21(b)(3). Under the Green Communities Act, as amended by the Energy Act of 2018, for the purpose of cost-effectiveness review, programs are aggregated by sector.[24] G.L. c. 25, § 21(b)(3). When screening for cost effectiveness, the Program Administrators may include, as benefits, certain avoided costs of complying with reasonably foreseeable environmental

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[24] The Department also requires the Program Administrators to report cost effectiveness at the program and core initiative level. 2013-2015 Three-Year Plans Order, at 105; 2019-2021 Three-Year Energy Efficiency Plans, D.P.U. 18-110 through D.P.U. 18-119, Hearing Officer Procedural Memorandum at 2 n.1 (October 3, 2018).

laws and regulations. D.P.U. 08-50-A at 2, 14-16; Massachusetts Electric Company v. Department of Public Utilities, 419 Mass. 239, at 241, 246 (1994); Guidelines § 3.4.4.1(a(v).

B. Program Administrators Proposal

1. Cost-Effectiveness Screening

The Program Administrators have screened each sector, program, and core initiative for cost effectiveness using the Total Resource Cost ("TRC") test (Statewide Plan, Exh. 1, at 166). The Program Administrators state that the Statewide Plan and the Program Administrator-specific Three-Year Plans include cost-effective sectors and programs for each plan year and over the entire 2019-2021 Three-Year Plan term (Statewide Plan, Exh. 1, at 166; see, e.g., Exh. LU-4 (Rev.) (December 20, 2018), Table IV.D.1).

2. Avoided Cost of Greenhouse Gas Emissions

The Program Administrators propose to include the avoided costs of complying with environmental laws and regulations as benefits under the TRC test (Statewide Plan, Exh. 1, at 171). To this end, the Program Administrators presented three methods of calculating the avoided cost of greenhouse gas ("GHG") emissions. Two methods are described in the Avoided Energy Supply Components in New England: 2018 Report ("AESC Study"), which evaluates the total environmental cost of GHG emissions and then subtracts the embedded cost of GHG emissions to arrive at the non-embedded cost of GHG emissions (Statewide Plan, Exh. 1, App. H at 157). The AESC Study developed one approach based on global marginal abatement costs and a second approach based on regional (i.e., New England) marginal abatement costs (Statewide Plan, Exh. 1, App. H at 157).

The third calculation method is described in the Analysis of the Avoided Costs of Compliance of the Massachusetts Global Warming Solutions Act ("Supplemental Study") prepared outside of the AESC stakeholder process at the request of DOER as a supplement to the AESC Study (Statewide Plan, Exh. 1, App. I at 3). The Supplemental Study considers seven potential strategies to comply with the Global Warming Solutions Act, St. 2008, c. 298 ("GWSA"), evaluates the all-in cost of GWSA compliance, and then subtracts the embedded cost of GHG emissions to arrive at the incremental avoided cost of GWSA compliance (Statewide Plan, Exh. 1, at 171, App. I at 7-9).

When screening for cost effectiveness, the Program Administrators applied the results from the Supplemental Study to include the incremental avoided costs of GWSA compliance as a benefit in the TRC test (Statewide Plan, Exh. 1, at 171). The Program Administrators also provided benefit calculations both with and without the Supplemental Study results in order to demonstrate the impact of the Supplemental Study on cost effectiveness (Statewide Plan, Exh. 1, at 171, App. C).

C. Positions of the Parties

1. Program Administrators

The Program Administrators assert that, consistent with Department requirements, they evaluated the expected benefits and costs associated with the Statewide Plan using the TRC test (Program Administrators Brief at 30, citing Statewide Plan, Exh. 1, at 252; see, e.g., Exhs. LU-4 (Rev.) (December 20, 2018), LU-5 (Rev.) (December 20, 2018); see Guidelines § 3.4; 2013-2015 Three-Year Plans Order, at 105-108; D.P.U. 08-50-A).

Further, the Program Administrators argue that they appropriately applied all cost-effectiveness screening requirements in developing the Statewide Plan (Program Administrators Brief at 29). The Program Administrators maintain that the Statewide Plan shows strong overall statewide cost effectiveness, with a three-year portfolio level benefit-cost ratio ("BCR") of 2.35 for electric Program Administrators and 1.91 for gas Program Administrators (Program Administrators Brief at 29).

The Program Administrators assert that, under the Department's Guidelines, they may include certain avoided costs of complying with environmental laws and regulations as benefits under the TRC test (Program Administrators Brief at 31). The Program Administrators maintain, however, that such avoided costs must be from reasonably foreseeable laws, regulations, or policies that will result in a cost included in electric or gas prices (Program Administrators Brief at 31, citing 419 Mass. 239; D.P.U. 08-50-A at 2). The Program Administrators maintain that they included the avoided cost values identified in the Supplemental Study as benefits in the TRC test (Program Administrators Brief at 31, citing Statewide Plan, Exh. 1, at 171). The Program Administrators assert that the Supplemental Study correctly assumes a counterfactual case that presumes no incremental energy efficiency in 2018 and beyond, and relies on the costs and emissions-reducing potential of seven compliance strategies that were identified as currently being deployed in Massachusetts under existing laws or regulations, or pursuant to the Clean Energy and Climate Plan for 2020 (Program Administrators Brief at 31-32, citing Statewide Plan, Exh. 1, App. I at 4).

The Program Administrators contend that, consistent with the Green Communities Act, all sectors are projected to be cost effective over the 2019-2021 Three-Year Plan term (Program Administrators Brief at 32). In addition, the Program Administrators assert that each Program Administrator's programs and core initiatives are cost effective as planned (Program Administrators Brief at 32). The Program Administrators acknowledge that, for some Program Administrators, certain core initiatives during a particular program year are not cost effective as planned if the Supplemental Study benefits are removed; however, each program is projected to be cost effective without the Supplemental Study benefits over the entire 2019-2021 Three-Year Plan term (Program Administrators Brief at 32-33, citing Exhs. CMA-4, Table IV.D.1; DPU-Columbia 1-3).

The Program Administrators reject arguments made by CLF and NEEC[25] that they have failed to fully incorporate the changes made by the Energy Act of 2018 related to sector cost effectiveness in their Three-Year Plans (Program Administrators Reply Brief at 2-3). The Program Administrators argue that CLF and NEEC have advanced interpretations of the Green Communities Act that are counter to the plain language of the statute and contrary to the overall statutory scheme (Program Administrators Reply Brief at 4, citing CLF Brief at 9; Exh. NEEC-Comm 2-3). Instead, the Program Administrators argue that their Three-Year Plans are appropriately designed to provide all cost-effective energy efficiency and demand

[25] NEEC did not file a brief in this proceeding, but the Program Administrators claim that NEEC advanced interpretations of the Green Communities Act in its pre-hearing statement and information requests (Program Administrators Reply Brief at 4, citing NEEC Pre-hearing Statement at 2; Exhs. NEEC-Comm 1-1 through NEEC-Comm 1-6; NEEC-Comm 2-1 through NEEC-Comm 2-3).

reductions and be complementary to other renewable energy programs (e.g., the Solar Massachusetts Renewable Target ("SMART") program) (Program Administrators Reply Brief at 4-5, citing An Act Relative to Solar Energy, St. 2016, c. 75). The Program Administrators argue that interpreting the Green Communities Act in the manner suggested by CLF and NEEC would divert efforts away from their statutory mandate to pursue all cost-effective energy efficiency (Program Administrators Reply Brief at 4-5).

2. Attorney General

The Attorney General maintains that the recent amendments to the Green Communities Act addressing energy efficiency were intended to broaden the scope and focus of energy efficiency measures to expressly include considerations of the environmental impacts associated with energy use (Attorney General Brief at 7-8). In this regard, the Attorney General observes that the amendments to the Green Communities Act establish the goal of including measures that are "designed to result in cost-effective reductions in [GHG] emissions" (Attorney General Brief at 8, quoting Energy Act of 2018 at § 2). The Attorney General asserts that, while the amendments push energy efficiency planning, the Three-Year Plans remain subject to existing checks and restraints in the Green Communities Act on overall funding, cost effectiveness, and ratepayer bill impacts, each of which were not affected by the Energy Act of 2018 (Attorney General Brief at 8-9).

3. Department of Energy Resources

DOER observes that the Department uses the TRC test to evaluate the cost effectiveness of energy efficiency programs and that the Energy Act of 2018 changed the

standard for the review of cost effectiveness to consider an aggregate of programs at the sector level (DOER Brief at 2, 9-10). DOER asserts that because the TRC test includes the avoided cost of energy supply as one of the most significant program benefits, application of this test satisfies the Green Communities Act's requirement that energy efficiency programs be less expensive than supply (DOER Brief at 2).

DOER argues that the Supplemental Study provides a more thorough assessment than the AESC Study of the costs that will be avoided through the implementation of energy efficiency measures (DOER Brief at 10). In particular, DOER asserts that the Supplemental Study captures the costs of fulfilling the Commonwealth's statutory obligations under the GWSA while also incorporating the policies adopted in the Clean Energy and Climate Plan for 2020 (DOER Brief at 12). Accordingly, DOER argues that the Department should approve the Program Administrators' inclusion of the results of the Supplemental Study in the calculations of avoided costs for the purpose of assessing the cost effectiveness of the Three-Year Plans (DOER Brief at 12).

4. Acadia Center

Acadia argues that the Department should approve the Statewide Plan because the proposed programs are projected to be cost effective over the 2019-2021 Three-Year Plan term (Acadia Brief at 7). Acadia argues that the Supplemental Study appropriately accounts for GWSA compliance costs and, therefore, Acadia favors inclusion of the Supplemental Study results in assessing cost effectiveness (Acadia Brief at 7-9, 22). Acadia maintains that, even excluding the Supplemental Study results, the aggregate BCR is projected to be 2.09 for

the electric Program Administrators and 1.74 for the gas Program Administrators (Acadia Brief at 7-9).

Alternately, Acadia asserts that the AESC Study fails to include the full avoided costs of compliance with the GWSA (Acadia Brief at 21-22). Acadia asserts that, without energy efficiency to achieve GWSA compliance, the Commonwealth must rely on other emissions reduction techniques (Acadia Brief at 23). Acadia argues that these other emissions reduction techniques are reasonably foreseeable environmental compliance costs, which are correctly included in the Supplemental Study (Acadia Brief at 23).

5. Conservation Law Foundation

CLF contends that the Program Administrators made no program changes as a result of the provisions of the Energy Act of 2018 related to sector cost effectiveness (CLF Brief at 13-14). Therefore, CLF argues that the Department should require the Program Administrators to amend their Three-Year Plans to fully implement the changes to the Green Communities Act (CLF Brief at 13-14).

In addition, CLF argues that advances in GWSA implementation require the Program Administrators to incorporate additional avoided GWSA compliance costs in their cost-effectiveness testing (CLF Brief at 37). In this regard, CLF argues that the Department should accept the Supplemental Study because it calculates these additional avoided costs, is based on the method used in the AESC Study, and was completed by the consultant that produced the AESC Study (CLF Brief at 37-38). Finally, CLF maintains that future AESC

studies should include a Massachusetts-specific avoided cost of GWSA compliance (CLF Brief at 38).

D. Analysis and Findings

1. Introduction

The Department is required to review all energy efficiency programs contained in the Three-Year Plans for cost effectiveness. G.L. c. 25, § 21(b)(3). This review ensures that programs are designed to capture energy savings and other benefits with values greater than costs. G.L. c. 25, § 21(b)(3). Under the Green Communities Act, as amended by the Energy Act of 2018, for the purpose of cost-effectiveness review, programs are aggregated by sector. G.L. c. 25, § 21(b)(3). Any sector with a BCR greater than 1.0 (indicating benefits are greater than costs) shall be considered cost effective. G.L. c. 25, § 21(b)(3). If a sector fails the cost-effectiveness test as part of the review process, its component programs shall either be modified so that the sector meets the test or be terminated. G.L. c. 25, § 21(b)(3).

The Guidelines establish the method by which the Department determines cost effectiveness. Guidelines § 3.4. The Department evaluates 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, or sector, is cost effective if the cumulative present value of its benefits is equal to or greater than the cumulative present value of its costs.[26,27] Guidelines § 3.4.3.1.

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[26] Benefits and costs are addressed in Guidelines §§ 3.4.4 and 3.4.5, respectively.

2. Cost-Effectiveness Screening

The Department finds that, based on projected benefits and costs, exclusive of the avoided cost of GHG emissions, all proposed energy efficiency sectors and programs are projected to be cost effective each year and over the term of the Three-Year Plans[28] (Exhs. CMA-4 (Rev.) (December 20, 2018); NG-Gas-4 (Rev.) (December 20, 2018); FGE-Gas-4 (Rev.) (December 20, 2018); LU-4 (Rev.) (December 20, 2018); Eversource Energy (gas)-4 (Rev.) (December 20, 2018); Berkshire-4 (Rev.) (December 20, 2018); Compact-4 (Rev.) (December 20, 2018); FGE-Electric-4 (Rev.) (December 20, 2018); NG-Electric-4 (Rev.) (December 20, 2018); Eversource Energy (electric)-4 (Rev.) (December 20, 2018)). The Department addresses avoided cost benefits from the Supplemental Study and the AESC Study below.

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[27] The Program Administrators may classify 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 is 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. To the extent that any core initiatives within programs are not projected to be cost effective over the plan term, the Program Administrator must demonstrate in its Term Report how it plans to achieve cost-effective core initiatives going forward. 2016-2018 Three-Year Plans Order, at 77.

[28] Certain core initiatives for Columbia Gas, Unitil (gas), Unitil (electric), and the Compact are not projected to be cost effective during certain program years when the benefits from the Supplemental Study are removed (see, e.g., Exhs. CMA-4 (Rev.) (December 20, 2018); DPU-Columbia 1-3). However, as described above, each program and sector is projected to be cost effective without the Supplemental Study benefits over the entire 2019-2021 Three-Year Plan term.

3. Avoided Cost of Greenhouse Gas Emissions

a. Introduction

The Department has recognized the importance of including the avoided cost of GHG emissions in a cost-benefit analysis of energy efficiency programs. D.P.U. 08-50-A at 17. However, in order for the Department to rely on these benefits when assessing cost effectiveness, the method of calculating avoided costs must be robust and properly supported.[29] D.P.U. 08-50-A at 16; D.P.U. 11-120-A, Phase II at 18. The Department appreciates DOER's efforts commissioning the Supplemental Study (Statewide Plan, Exh. 1, at 171). However, the Department has identified several issues with respect to the method and modeling used to calculate the avoided cost of GWSA compliance in the Supplemental Study.[30] These issues do not affect our findings above that the Three-Year Plans are cost effective, because the Program Administrators have demonstrated that, even absent the results of the Supplemental Study, all programs and sectors are projected to be cost effective over the Three-Year Plan term. The Department expects, however, that each of these issues will be addressed in all future studies of the avoided cost of GHG emissions.

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[29] The Program Administrators must support the avoided cost value with evidence and must adequately explain how the value was derived. D.P.U. 11-120-A, Phase II at 18, citing Boston Gas Company v. Department of Telecommunications and Energy, 436 Mass. 233, 240-241 (2002).

[30] The same consultant completed both the AESC Study and the Supplemental Study; however, contrary to CLF's assertions, the Supplemental Study uses a different method than the AESC Study (CLF Brief at 37-38; Statewide Plan, Exh. 1, Apps. H at 33, 76-84; I at 7-12; Tr. 2 at 189-190, 213-214).

b. Supplemental Study

The Department has identified multiple issues with the Supplemental Study. First, the modeling in the Supplemental Study is not consistent with the study's assumptions. In particular, the Supplemental Study states that it is based on the assumption of a counter-factual scenario of no incremental energy efficiency where additional GHG emissions reduction measures need to be implemented in order to comply with the GWSA (Statewide Plan, Exh. 1, App. I at 4). However, the Supplemental Study does not estimate the amount of additional GHG emissions reductions that are needed if there were no incremental energy efficiency (Exh. DPU-Comm 3-3, Att.; Tr. 2, at 195-197). Further, the Supplemental Study does not estimate the amount of expansion needed for each GHG emissions reduction strategy if there were no incremental energy efficiency (Exh. DPU-Comm 3-3, Att.; Tr. 2, at 197). Therefore, although we find that the overall assumption of a counter-factual scenario of no incremental energy efficiency is reasonable, the GWSA modeling in the Supplemental Study is not consistent with this assumption.

Second, the Supplemental Study takes a conflicting view of the regional (i.e., New England) approach versus the Massachusetts-specific approach. In particular, the Supplemental Study provides that, because the AESC Study was developed on behalf of stakeholders throughout the New England region, a Massachusetts-specific carbon value needs to be developed for the proposed Three-Year Plans (Tr. 2, at 189-190). However, in the GWSA model, the Supplemental Study uses the renewable energy generation potential of all six states in the New England region to account for compliance with the GWSA

(Exh. DPU-Comm 3-3, Att.; Tr. 2, at 198-199). Essentially, the Supplemental Study proposes to apply the GHG emissions reduction potential of the entire New England region to Massachusetts' GWSA compliance, including the strategies that reduce emissions in the other New England states (Exh. DPU-Comm 3-3, Att.; Tr. 2, at 198-199). As a result, the Department is concerned that the Supplemental Study will likely lead to double counting of GHG emissions reduction between Massachusetts and the other New England states because there is no guarantee that all of the renewable energy generation in the other New England states will be available for GWSA compliance[31] (Exh. DPU-Comm 3-3, Att.; Tr. 2, at 197-198).

Third, the Supplemental Study presents unreasonable and conflicting assumptions on how the avoided cost is calculated for the light duty vehicle electrification strategy. While light duty vehicle electrification requires the purchase of EVs, the Supplemental Study does not include the costs of EV purchase and, instead, only includes the cost of EV charging infrastructure (Exh. DPU-Comm 3-3, Att.; Tr. 2, at 190-192). In calculating the cost of EV charging infrastructure, the Supplemental Study consultant testified that the study includes only "costs that are likely to be incurred by the electric distribution companies and, therefore, avoidable by energy efficiency" (Tr. 2, at 192). However, the Supplemental Study consultant also testified that the EV charging infrastructure costs included in the study are public charging stations that will not necessarily be built by the electric distribution

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[31] The Supplemental Study consultant testified that "each one of these strategies lives within a set of. . . regulations and legislation. So it's not just within GWSA" (Tr. 2, at 198).

companies, but "could be built by anyone" (Tr. 2, at 193-194). These conflicting assumptions call into question the reliability of the calculation of the avoided cost for the light duty vehicle electrification strategy as presented in the Supplemental Study.

Fourth, several mistakes and inconsistencies in the Supplemental Study reduce its credibility. These mistakes and inconsistencies include errors in column titles in a few important tables and charts, errant references to key variables in the GWSA model, and data errors on several variables in the GWSA model (Exh. DPU-Comm 3-3, Att.; Tr. 2, at 170-171, 177-180; Statewide Plan, Exh. 1, Apps. H at 367; I at 10). Further, in forecasting the offshore wind price, the Supplemental Study takes a Section 83C[32] long-term contract price in 2017 and applies it through 2030, without addressing the fact that any subsequent offshore wind procurement under Section 83C would need to be at a lower price than the previous procurement (Exh. DPU-Comm 3-3, Att.; Tr. 2, at 201-202). See 220 CMR 23.04(5).

For the reasons identified above, the Department has concerns regarding the Supplemental Study. More specifically, the Department does not have sufficient confidence in the method and modeling used in the Supplemental Study to rely on it in evaluating the cost effectiveness of the proposed Three-Year Plans.

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[32] Section 83C of the Green Communities Act, as amended by An Act to Promote Energy Diversity, St. 2016, c. 188, allows the distribution companies to conduct one or more competitive offshore wind solicitations through a staggered procurement schedule occurring within 24 months of the previous solicitation.

c. Avoided Energy Supply Components

As described above, the AESC Study includes the following two approaches to estimating the total environmental cost of GHG emissions: (1) a global marginal abatement cost estimate; and (2) a New England marginal abatement cost estimate (Statewide Plan, Exh. 1, App. H at 157). The global marginal abatement cost estimate is identical to the prior 2015 AESC study value, at $100 per short ton of CO_2-equivalent. The New England marginal abatement cost estimate is based on a projection of future costs of offshore wind energy, at $68 per short ton of CO_2-equivalent (Statewide Plan, Exh. 1, App. H at 157). The New England marginal abatement cost estimate was conducted at the request of the AESC study group, in order to identify a carbon value that is more relevant than the global value to Massachusetts and other New England states (Statewide Plan, Exh. 1, App. H at 159; Tr. 2, at 184).

The total environmental cost of GHG emissions includes both embedded and non-embedded costs, so the non-embedded cost of GHG emissions is derived by subtracting the embedded cost of GHG emissions from either of the two marginal abatement cost estimate values above (Statewide Plan, Exh. 1, App. H at 157-158). For Massachusetts, the embedded cost of GHG emissions is comprised of (1) compliance costs associated with RGGI and (2) two DEP regulations, 310 CMR 7.74 (Reducing CO_2 Emissions from Electricity Generating Facilities) and 310 CMR 7.75 (Clean Energy Standard) (Statewide Plan, Exh. 1, App. H at 157, 367, Table 137).

For the reasons discussed below, the Department finds that the New England marginal abatement cost estimate contained in the AESC Study is appropriate to use to derive the non-embedded cost of GHG emissions that should be applied to assess the cost effectiveness of the proposed Three-Year Plans. First, the environmental cost of GHG emissions, as part of the AESC Study, was developed through stakeholder consensus. The AESC study group that oversaw the design and production of the AESC Study is composed of Program Administrators, state agencies, consumer advocacy organizations, and environmental advocacy organizations (Statewide Plan, Exh. 1, App. H at 20). Consistent with the previous 2013 and 2015 AESC studies, the AESC study group and its consultant used the marginal abatement cost method (instead of the environmental damage cost or externality method) to estimate the total environmental cost of GHG emissions (Statewide Plan, Exh. 1, App. H at 157-158). Given the challenges involved in estimating the environmental costs of GHG emissions, the Department prefers a valuation process that is consensus-based and vetted by multiple stakeholders from various perspectives.

Second, the New England marginal abatement cost method complies with Guidelines § 3.4.3.1. The Program Administrators include reasonably foreseeable environmental compliance costs in evaluating energy resources. See D.P.U. 08-50-A at 15-17. The New England marginal abatement cost method included in the AESC Study is not based on environmental damage costs or externalities. Rather, it is based on the costs of an abatement technology that is generally considered to be appropriate for New England and for

Massachusetts, in particular, to estimate the reasonably foreseeable environmental compliance costs[33] (Statewide Plan, Exh. 1, App. H at 159-160).

Finally, it is clear that energy efficiency alone is not able to bring Massachusetts into full compliance with the GWSA (Statewide Plan, Exh. 1, App. I at 4). For this reason, energy efficiency is only one of many strategies that the Commonwealth needs to deploy to meet the GWSA's targets (Statewide Plan, Exh. 1, at 171-173). Therefore, what the New England marginal abatement cost method accomplishes in the instant dockets is to estimate, on a per short ton basis, a localized and reasonable cost value of reducing GHG emissions. This value can be used to arrive at the non-embedded cost of GHG emissions that the Program Administrators can claim as one of the benefits of the proposed energy efficiency programs, within the context of contributing to GWSA compliance. The per-short-ton avoided cost can be applied to each proposed energy efficiency program based on the savings they are projected to achieve and based on the GHG emission rates of fuels relevant to each proposed energy efficiency program (Statewide Plan, Exh. 1, App. I at 25-26; Tr. 2, at 184-189).

In conclusion, the Department determines that we have sufficient evidence to rely on the New England marginal abatement cost estimate in the AESC Study as the basis to derive

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33 In particular, the Energy Act of 2018 requires the procurement of 1,600 MW of offshore wind by June 2027, and authorizes another 1,600 MW of offshore wind procurement by December 2035. See 220 CMR 23.00. The AESC Study estimates the costs of the marginal abatement technology based on offshore wind projects that have already been constructed in Maryland and Europe, or are under contract in Massachusetts pursuant to Section 83C (Statewide Plan, Exh. 1, App. H at 159-160).

the non-embedded cost of GHG emissions to include in the cost-benefit analysis of the proposed Three-Year Plans. The Department found above that all programs and sectors are cost effective without the non-embedded cost of GHG emissions. Adding these additional benefits as measured by the AESC Study, all programs and sectors remain cost effective (Statewide Plan, Exh. 1, at 166; see e.g., Exh. CMA-4, Table IV.D.1 (Rev.) (December 20, 2018)). The Program Administrators shall continue to evaluate the total environmental cost of GHG emissions, including both the embedded and non-embedded costs, within all future AESC studies that are overseen by the AESC study group.

To ensure that all planned data reflect this avoided cost, within 21 days of the date of this Order, the Program Administrators shall submit updated data tables, as well as updated BCR and performance incentive models that include the non-embedded cost of GHG emissions derived from the New England marginal abatement cost of $68 per short ton CO_2-equivalent contained in the AESC Study (Statewide Plan, Exh. 1, App. H, app. K). As part of this filing, the Program Administrators shall show (1) how the non-embedded cost of GHG emissions is derived from the New England marginal abatement cost of $68 per short ton CO_2-equivalent and (2) how the non-embedded cost of GHG emissions is applied in the BCR models for electricity, natural gas, and other fuels based on their respective GHG emission rates.

4. Green Communities Act Amendments

As described above, the Green Communities Act, as amended by the Energy Act of 2018, now allows programs to be aggregated by sector for purpose of cost-effectiveness

review. G.L. c. 25, § 21(b)(3). CLF contends that the Program Administrators made no program changes as a result of this recent shift to sector cost effectiveness and, therefore, recommends that the Department require the Program Administrators to amend their Three-Year Plans in a subsequent proceeding to fully implement these changes (CLF Brief at 13-14). CLF's view is not shared by the Program Administrators or other parties to these proceedings, including the Attorney General and DOER (Program Administrators Reply Brief at 2-5; Attorney General Brief at 7-10; DOER Brief at 8-10, 13-16).

Contrary to CLF's assertions, the Department finds that the Three-Year Plans appropriately incorporate the changes made by the Energy Act of 2018 to the Green Communities Act (Statewide Plan, Exh. 1, at 27-135). The Three-Year Plans include a range of new approaches and strategies that were enabled by the Energy Act of 2018, including strategic electrification, support for customers seeking to switch to renewable energy and clean energy technologies, and measures that are designed to demonstrate benefits (1) through verified energy and demand reduction savings or (2) that will be tested through a demonstration effort (Statewide Plan, Exh. 1, at 18, 59, 69, 110, 129; Exhs. DPU-Comm 1-7; DPU-Comm 2-5; DPU-Comm 5-8; NEEC-Comm 2-1(b); NEEC-Comm 2-2). Further, consistent with the energy efficiency planning process, the Program Administrators and the Council will continue to regularly evaluate energy efficiency opportunities and, where appropriate, propose changes in the future to incorporate additional measures or other adjustments (Exhs. NEEC-Comm 1-3; NEEC-Comm 2-3).

As the Attorney General correctly notes, while the recent amendments to the Green Communities Act expand the scope and flexibility of energy efficiency planning, the Three-Year Plans must continue to comply with ratepayer protections in the Green Communities Act regarding cost effectiveness, funding, and bill impacts (Attorney General Brief at 8-9). G.L. c. 25, §§ 19-21. Each of these essential ratepayer protections was not affected by the Energy Act of 2018.

In particular, the Energy Act of 2018 did not impact the statutory requirement that the Department consider "the effect of any rate increases on residential and commercial customers" in evaluating other funding sources for energy efficiency programs or the statutory mandate that "[t]o mitigate capacity and energy costs for all customers, the [D]epartment shall ensure that . . . resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply." G.L. c. 25, §§ 19(a)(3)(i), 21(a). Following the amendments, the Green Communities Act continues to require "the lowest reasonable customer contribution" in acquiring all cost-effective energy efficiency and demand reduction resources, and though it now includes active demand management technologies and strategic electrification as possible efficiency and load management programs, the Legislature tempers the expected expansion of electricity consumption with the need to "minimiz[e] ratepayer costs." G.L. c. 25, § 21(b)(1), (2)(iv)(A).

In considering cost effectiveness at the aggregated sector level, it is possible that measures could be installed that have, for example, an in-service rate of zero percent,

bringing no benefits to ratepayers or the Commonwealth, yet the BCRs for all sectors would remain above 1.0 (RR-Acadia-Compact-1). In effectuating requirements of the Green Communities Act, the Department must continue to ensure that the use of ratepayer dollars to fund energy efficiency programs and measures is justified by the benefits achieved. There is nothing to suggest that, in amending the Green Communities Act, the Legislature intended that ratepayer dollars could be spent frivolously, particularly where the overall purpose in pursuing energy efficiency measures remains the achievement of all cost-effective energy efficiency while minimizing ratepayer costs.[34] G.L. c. 25, § 21(a), (b)(1), (b)(2)(iv)(A).

In the pursuit of all cost-effective energy efficiency, the Program Administrators must balance the additional flexibility in program design and implementation afforded by the Energy Act of 2018, with the prudent spending of ratepayer funds. In doing so, the Program Administrators must consider cost efficiency, as well as cost effectiveness. The Department addresses the use of performance incentives to address cost efficiency in Section VI below. Further, as discussed in Section VII.D.5 below, the Department has found that the Program

[34] The Legislature's intent must be ascertained from all of the Green Communities Act's words, as amended, "construed by the ordinary and approved usage of the language" and "considered in connection with the cause of its enactment, the mischief or imperfection to be remedied and the main object to be accomplished." Harvard Crimson, Inc. v. President & Fellows of Harvard College, 445 Mass. 745, 749 (2006). Plain and unambiguous statutory language is "conclusive as to legislative intent," but we will not adopt a literal construction where the consequences would be "absurd or unreasonable" and could not be what the Legislature intended. Sharris v. Commonwealth, 480 Mass. 586, 594 (2018) (quoting Attorney General v. School Committee of Essex, 387 Mass. 326, 336 (1982)).

Administrators have appropriately considered bill impacts when developing their proposed Three-Year Plans (Statewide Plan, Exh. 1, at 145, 150-151, 187).

Finally, the Department requires the Program Administrators to continue to report cost-effectiveness at the program and core initiative level, in addition to the sector level. 2013-2015 Three-Year Plans Order, at 105; 2019-2021 Three-Year Energy Efficiency Plans, D.P.U. 18-110 through D.P.U. 18-119, Hearing Officer Procedural Memorandum at 2 n.1 (October 3, 2018). Where a core initiative or a program is not projected to be cost-effective, the Program Administrators should be prepared to demonstrate, in their Annual Reports and Term Reports, how they intend to achieve cost-effective programs and core initiatives going forward.

5. Benefit-Cost Ratio Model

To facilitate our cost-effectiveness review, the Department has directed the Program Administrators to include all formulas, linkages, and pivot tables in the data tables when filed. 2013-2015 Three-Year Plans Order, at 160. In their initial Three-Year Plan filings, the Program Administrators did not provide documentation showing how the BCR model outputs were linked to the data table inputs (see, e.g., Exhs. CMA-4 (Rev.) (December 20, 2018); CMA-5 (Rev.) (December 20, 2018)). In response to discovery, the Program Administrators subsequently provided a sufficient explanation of the relationship between the BCR models and the data tables, as well as a detailed list of all calculated fields used in creating the pivot tables (Exhs. DPU-Comm 12-2; DPU-Comm 12-3).

In order to enable the Department to verify the data tables and otherwise effectively review the Three-Year Plans within the 90-day statutory time limit prescribed by G.L. c. 25, § 21(d)(2), it is imperative for the Program Administrators to improve the transparency of the supporting data tables. Therefore, as part of their initial filings in future three-year plan proceedings, the Program Administrators shall provide (1) an explanation of all linkages between the BCR models and the data tables and (2) a detailed list of calculated fields and all other interim steps and data sets used in creating the pivot tables in a format consistent with Exhibits DPU-Comm 12-2 and DPU-Comm 12-3.

6. Conclusion

After review, the Department finds that each Program Administrator has demonstrated that, exclusive of the avoided costs of GHG emissions, its Three-Year Plan includes cost-effective sectors and programs for each plan year and over the entire 2019-2021 Three-Year Plan term. In addition, the Department finds that all programs and sectors remain cost-effective for each plan year and over the entire 2019-2021 Three-Year Plan term when the non-embedded cost of GHG emissions, as derived in the AESC Study, is included in the cost-benefit analysis.

Finally, as discussed above, the Department finds that the Three-Year Plans appropriately incorporate the changes made by the Energy Act of 2018 to the Green Communities Act with regard to the captured energy savings and other benefits that have values greater than costs. In particular, we find that the Three-Year Plans appropriately reflect the recent amendments to the Green Communities Act, expanding the scope and

flexibility of energy efficiency planning, while continuing to comply with ratepayer protections in the Green Communities Act regarding cost effectiveness, funding, and bill impacts.

VI. PERFORMANCE INCENTIVES

A. Introduction

The Green Communities Act provides that the Three-Year Plans shall include a proposed mechanism that provides incentives to the Program Administrators based on their success in meeting or exceeding the plan goals. G.L. c. 25, § 21(b)(2). 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 achieve the following: (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.

B. Program Administrators Proposal

1. Performance Incentive Mechanism

The Program Administrators[35] propose to implement a performance incentive mechanism for each year of the Three-Year Plan term (Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). The Program Administrators propose a statewide incentive pool equal to $116.7 million for electric Program Administrators, and $23.5 million for gas Program Administrators (Statewide Plan, Exh. 1, at 160).

The Program Administrators state that the proposed incentive mechanism is based on the performance incentive model approved by the Department for the 2016 through 2018 three-year plans (see Statewide Plan, Exh. 1, at 159). However, for the 2019-2021 Three-Year Plan term, the Program Administrators propose to (1) add performance incentive components related to renters and active demand reduction, and (2) change how the value component is calculated (Statewide Plan, Exh. 1, at 159, 162).

The structure of the proposed incentive mechanism includes the following: (1) a value component; (2) a savings component; and (3) a renter component (Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). For electric Program Administrators, the savings component[36] includes the following two subparts: (1) an energy efficiency and

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[35] The Compact does not receive a performance incentive. D.P.U. 08-50-A at 51. Accordingly, all references to "Program Administrators" in this section do not include the Compact.

[36] The Program Administrators traditionally achieve incentives through the savings component based on total benefits achieved (Statewide Plan, Exh. 1, at 162)

passive demand component; and (2) an active demand reduction savings component (Statewide Plan, Exh. 1, at 159). The total performance incentive is the sum of the value, savings, and renter components (Statewide Plan, Exh. 1, at 160).

The Program Administrators propose to collect performance incentive dollars through each component at a predetermined payout rate when their evaluated performance falls between the threshold and exemplary levels (Statewide Plan, Exh. 1, at 162). The threshold and exemplary levels are calculated based on the design level performance, which is defined as 100 percent of a Program Administrator's projected benefits and net benefits (Statewide Plan, Exh. 1, at 158 n.38, 162). 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 162). The cap for the total possible performance incentive earned across all components is 125 percent of design-level performance (Statewide Plan, Exh. 1, at 162). The proposed payout rates for both the savings and value components remain constant for all Program Administrators for each year of the Three-Year Plan term (Statewide Plan, Exh. 1, App. R).

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 162). At a statewide level, 61.5 percent of the incentive has been allocated to the savings component and 38.5 percent of the incentive has been allocated to the value component (Statewide Plan, Exh. 1, at 160-161). 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 (Statewide Plan, Exh. 1, at 159).

Currently, Program Administrators are required to collect performance incentives at the design level during the term, and they must reconcile actual performance incentives following approval of their Three-Year Term Reports (Statewide Plan, Exh. 1, at 166). Guidelines § 3.6.4.2. The Program Administrators propose to modify this schedule so that the Program Administrators would initially reconcile their actual earned performance incentives with the projected design-level incentives in the Energy Efficiency Surcharge ("EES") filing following the filing of the Term Reports (rather than in the EES filing following the Department's approval of the Term Reports) (Statewide Plan, Exhs. 1, at 160, 166; DPU-Comm 7-1).

2. Renter Component

The Program Administrators propose to allocate one million dollars for gas and two million dollars for electric from the statewide incentive pool to a new renter[37] component of the performance incentive mechanism (Statewide Plan, Exh. 1, at 164; Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). The Program Administrators state that the

[37] Renter participants, under the renter component, include any rental dwelling unit that benefits from a measure in the Residential Coordinated Delivery, Income-Eligible Coordinated Delivery, or C&I Existing Buildings (Residential End Use) initiatives and any rental unit that receives a customized energy savings package through the Residential Retail initiative (Statewide Plan, Exh. 1, at 164-165; Exhs. DPU-Comm 1-9; DPU-Comm 1-10).

purpose of the renter component is to achieve greater success in targeting renters with energy efficiency efforts (Exh. DPU-Comm 1-13). Under the proposal, the Program Administrators would receive approximately $20 per renter served (Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). The payout rate per renter does not change if the Program Administrator does not meet the threshold level for the renter component (Exh. DPU-Comm 1-6).

In addition, the Program Administrators state that the purpose of the renter component is to assist in the tracking and reporting of the number of renter participants[38] (Exh. DPU-Comm 1-10). The Program Administrators state that the tracking and reporting of renters will provide insight into how these customers access energy efficiency initiatives from the perspective of both program implementation and EM&V (Exh. DPU-Comm 1-10).

3. Active Demand Reduction Savings Component

As described in Section III above, the electric Program Administrators propose several new statewide active demand reduction offerings (Statewide Plan, Exh. 1, at 162). At the recommendation of the Council, the Program Administrators have proposed to implement a specialized incentive mechanism designed to provide additional incentives for successfully achieving benefits associated with the statewide active demand reduction efforts (Statewide Plan, Exh. 1, at 163).

[38] The Program Administrators state that they have not previously tracked whether a customer was a renter of a unit or building (Exhs. DPU-Comm 1-4; DPU-Comm 1-10).

The proposed active demand reduction savings component of the performance incentive mechanism consists of two payout rates (Statewide Plan, Exh. 1, App. F at 5). The Program Administrators propose to establish the initial payout rate based on performance incentive dollars per planned total benefits from active demand reduction using the five million dollar pool allocated to the active demand reduction savings component (Statewide Plan, Exh. 1, App. F at 5). The active demand reduction savings component payout rate will be determined by dividing the five million dollars allocated for the targeted active demand payout rate by planned total benefits from active demand (Statewide Plan, Exh. 1, at 163).[39]

4. Value Component

The Program Administrators have previously calculated the value component using net benefits (i.e., the difference between total benefits and total resource costs). See 2016-2018 Three-Year Plans Order, at 57 n.28. For the 2019-2021 Three-Year Plans, the Program Administrators propose to use actual spending, as opposed to total resource costs, to calculate the performance incentives associated with the value component (Statewide Plan, Exh. 1, at 162). Statewide incentives for the value component will be allocated on the basis of the dollar value of net benefits using common payout rates for the incentive pool for both gas and electric (Statewide Plan, Exh. 1, at 162; Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). Finally, the common payout rate will be determined by dividing the

[39] The targeted active demand reduction savings payout rate will not apply to gas Program Administrators (Exh. DPU-Comm 1-1).

value component performance incentive pools by statewide planned portfolio benefits[40] (Statewide Plan, Exh. 1, at 162; Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)).

C. Positions of the Parties

1. Program Administrators

The Program Administrators assert that the proposed performance incentive mechanism, including the (1) active demand reduction savings component, (2) renter component, (3) calculation of net benefits in the value component, and (4) proposed change in reconciliation timing, is consistent with the Department's standards for the design of performance incentives and, therefore, should be approved (Program Administrators Brief at 57). In addition, the Program Administrators argue that the proposed performance incentive mechanism, incentive pool, and payout rates are consistent with the Green Communities Act and Department precedent (Program Administrators Brief at 53, citing 2013-2015 Three-Year Plans Order, at 98).

The Program Administrators maintain that, for electric Program Administrators, the proposed savings component includes (1) an energy efficiency and passive demand reduction component and (2) an active demand reduction component (Program Administrators Brief at 53). The Program Administrators argue that the renter, savings, and value components are

[40] The Program Administrators propose that the threshold for earning performance incentives for the value component will be based on achieving 75 percent of planned portfolio net benefits, capped at 125 percent of design level (Statewide Plan, Exh. 1, at 162).

designed to work in conjunction with each other to encourage the pursuit of all cost-effective energy efficiency and demand reduction opportunities (Program Administrators Brief at 53, citing Exh. DPU-Comm 10-6).

Finally, the Program Administrators assert that adoption of the renter component will allow them to more accurately capture the number of renters served during the 2019-2021 Three-Year Plan term (Program Administrators Brief at 55). The Program Administrators maintain that the Council unanimously supported the proposed renter component (Program Administrators Brief at 55-56, citing Statewide Plan, Exh. 1, at 164; Exh. DPU-Comm 1-10; Tr. 2, at 243).

2. Attorney General

The Attorney General asserts that the proposed renter component of the performance incentive mechanism is necessary to both encourage and document Program Administrator success in meeting the challenges surrounding the delivery of energy efficiency to renters (Attorney General Brief at 14). The Attorney General argues that the structure of the proposed renter component will provide a sufficient incentive for the Program Administrators to deliver such services (Attorney General Brief at 13). The Attorney General maintains that adoption of the renter component represents progress toward ensuring equity in the funding and distribution of the energy efficiency program benefits and, therefore, she encourages the Department to approve the proposed renter component of the performance incentive mechanism (Attorney General Reply Brief at 2-3).

3. Department of Energy Resources

DOER supports Department approval of the proposed renter and active demand reduction savings components of the performance incentive mechanism (DOER Brief at 16). DOER maintains that the renter component will provide an appropriate incentive for Program Administrators to improve their engagement with renters and facilitate the tracking of the number of renters participating in the Residential Coordinated Delivery, Income-Eligible Coordinated Delivery, and C&I Existing Buildings (Residential End Use) initiatives (DOER Brief at 18). DOER asserts that the Program Administrators will not earn an incentive in the renter component without first addressing the existing barriers for renter participation (DOER Brief at 18-19).

In addition, DOER argues that the active demand reduction savings component is specifically tailored to ensure that the Program Administrators achieve benefits associated with statewide active demand reduction efforts (DOER Brief at 17). DOER argues that because the Program Administrators will receive a payout for every dollar of benefits achieved once active demand reduction threshold benefits are met, the Program Administrators will receive an incentive to fully invest in these programs (DOER Brief at 17-18).

DOER asserts that the two other proposed changes to the performance incentive mechanism (i.e., value component and timing of reconciliation) were not discussed with the Council or negotiated as part of the Term Sheet (DOER Reply Brief at 8). While DOER does not express an opinion as to the timing of reconciliation of performance incentives,

DOER maintains that it does not currently support the Program Administrators' proposed change to the value component of the performance incentive mechanism (DOER Reply Brief at 8-9). In particular, DOER argues that it is concerned that by changing the calculation from using total resource costs to using Program Administrator-specific costs, the value component will no longer measure the total net benefits to customers as the customer contribution is removed from the calculation (DOER Reply Brief at 8). DOER claims that this change could result in the Program Administrators favoring measures that require lower Program Administrator-specific investment rather than measures that have the higher net benefit to customers (DOER Reply Brief at 8).

4. Acadia Center

Acadia encourages the Department to approve the proposed renter and active demand reduction performance incentive components (Acadia Brief at 21). Acadia argues that these proposed incentive components do not suffer from any of the design defects that the Department found to be disqualifying in prior three-year plan filings (Acadia Brief at 17-18). In particular, Acadia argues that the proposed components are (1) specific to each Program Administrator, (2) easily numerically verified, (3) not sector specific, and (4) designed to provide incentives for activities that potentially use more energy (active demand management) or have not been adequately addressed by the Program Administrators (serving renters at parity with owners) (Acadia Brief at 17).

Acadia argues that the proposed renter component is an innovative approach to reward Program Administrators for facilitating an improved understanding of renter participation

(Acadia Brief at 19-20). Acadia maintains that the proposed renter component will appropriately focus the Program Administrators' attention on addressing renter participation issues (Acadia Brief at 19-20). Finally, although Acadia recognizes that the savings component already encourages Program Administrators to pursue all cost-effective energy efficiency and demand reduction, it asserts that a targeted incentive for active demand management is needed to encourage Program Administrators to pursue these activities (Acadia Brief at 21).

5. Conservation Law Foundation

CLF generally supports the proposed renter and active demand reduction components of the Program Administrators' performance incentive mechanism (CLF Brief at 30, 47).

6. Low-Income Energy Affordability Network

LEAN argues that low-income tenants and households are already well served by the Program Administrators and, therefore, the proposed renter component is not effectively designed (LEAN Brief at 7-8). LEAN contends that, in the case of the gas incentive, normal low-income tenant participation all but guarantees the total tenant goal will be reached (LEAN Brief at 7). As to the electric incentive, LEAN asserts that if there is a shortfall in achieving the renter performance metric as the Three-Year Plan term is coming to a close, the structure of the proposed incentive may encourage over-delivery of proven low-income programs, distorting other low-income objectives and accomplishing little for non-low-income tenants (LEAN Brief at 7-8).

7. PowerOptions

PowerOptions maintains that it generally supports the active demand response and renter components of the proposed performance incentive mechanism (PowerOptions Brief at 3, 10). PowerOptions argues, however, that the renter component unnecessarily excludes C&I renters, such as non-profits, that do not provide a residential end use (PowerOptions Brief at 12).

D. Analysis and Findings

1. Introduction

The Green Communities Act provides that the Three-Year Plans shall include a proposed incentive mechanism. G.L. c. 25, § 21(b)(2). As described above, the Program Administrators have proposed an incentive mechanism that is largely based on the performance incentive model approved by the Department for the 2016 through 2018 three-year plan term (Statewide Plan, Exh. 1, at 159). For the 2019-2021 Three-Year Plan term, however, the Program Administrators propose to (1) add performance incentive components related to renters and active demand reduction and (2) change to how the value component is calculated (Statewide Plan, Exh. 1, at 159, 162). The Program Administrators also propose to alter the timing of the reconciliation of the performance incentives at the end of the Three-Year Plan term (Statewide Plan, Exh. 1, at 160, 166).

2. Performance Incentive Mechanism

a. Statewide Incentive Pool

The electric Program Administrators propose a statewide performance incentive pool of approximately $116.7 million for 3,308,544,000 kWh of total electric savings, or

approximately $0.035 per kWh of savings (Statewide Plan, Exh. 1, App. C - Electric (Rev.) (December 20, 2018)). The gas Program Administrators propose a statewide performance incentive pool of approximately $23.5 million for 96,462,193 therms of total gas savings, or approximately $0.24 per therm of savings (Statewide Plan, Exh. 1, App. C – Gas (Rev.) (December 20, 2018)). The proposed statewide incentive pool is reflected in the Term Sheet (Statewide Plan, Exh. 1, App. F).

As part of the last three-year plans, the Department approved a statewide incentive pool equal to 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 each year, before taxes. 2016-2018 Three-Year Plans Order, at 66. In the instant Three-Year Plans, the proposed statewide incentive pool is approximately six percent of the electric Program Administrators' budgets for each year, before taxes, and approximately three percent of the gas Program Administrators' budgets for each year, before taxes (Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)).

The Department finds that the proposed statewide incentive pool, as a percentage of Program Administrators' budgets, is consistent with the statewide incentive pool in previous three-year plans (Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). 2016-2018 Three-Year Plans Order, at 66. This is the case even though the Program Administrators have proposed to include an additional savings component to the performance incentive mechanism (Statewide Plan, Exh. 1, at 162). After review, subject to the treatment of the renter component addressed in Section VI.D.2.d below, 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 20, 2018)). Guidelines §§ 3.6.2, 3.6.3.

b. Timing of Reconciliation

The Program Administrators are permitted to include design-level performance incentives as part of the budgets for the applicable plan year, which are collected through the EES (Statewide Plan, Exh. 1, at 166, citing Guidelines § 3.6.4.2). Currently, the Program Administrators reconcile their actual earned performance incentives with the projected design-level incentives only after the Department has verified savings and incentive achievement as part of its approval of the Term Reports (Statewide Plan, Exh. 1, at 166, citing Guidelines § 3.6.4.2; Exh. DPU-Comm 7-1). The Program Administrators propose to modify this schedule so that they will initially reconcile their actual earned performance incentives with the projected design level incentives in the EES filing following the filing of the Term Reports (rather than in the EES filing following the Department's approval of the Term Reports) (Statewide Plan, Exh. 1, at 160, 166; Exh. DPU-Comm 7-1). In a subsequent EES filing, the Program Administrators would reconcile any differences between the actual performance incentives reported in the Term Reports and the actual performance incentives approved by the Department in the Term Reports (Statewide Plan, Exh. 1, at 166).

The Department finds that the Program Administrators' proposal to reconcile actual earned performance incentives with design-level performance incentives in the EES filing following the filing of the Term Reports is reasonable as it will minimize the level of interest

costs while not increasing any administrative or regulatory burdens (Statewide Plan, Exh. 1, at 160, 166; Exhs. DPU-Comm 7-1; DPU-Comm 7-2). Accordingly, the Department approves the Program Administrators' proposal.

c. Savings and Value Components

The Program Administrators propose to allocate the statewide incentive pool to each component of the performance incentive mechanism as follows: (1) 61.5 percent to the savings component and (2) 38.5 percent to the value component (Statewide Plan, Exh. 1, App. R (Rev.) (December 20, 2018)). The Program Administrators' proposed incentive mechanism also includes the application of uniform statewide payout rates for the savings and value components (see Statewide Plan, Exh. 1, at 159). The incentive payments that the Program Administrators propose to receive through the savings and value components are based on total benefits and the difference between total benefits and actual spending, respectively, achieved through the implementation of a Program Administrator's energy efficiency programs (Statewide Plan, Exh. 1, at 159).

In previous three-year plans, the value component was calculated using net benefits (i.e., the difference between total benefits and total resource costs). See 2016-2018 Three-Year Plans Order, at 57 n.28. The total resource costs used in this calculation were comprised of program implementation costs[41] and participant costs (Exh. DPU-Comm 12-3). For the 2019-2021 Three-Year Plans, the Program Administrators

[41] For the purposes of net benefits calculations, performance incentives were not included (see Statewide Plan, Exh. 1, at 159 n.39).

propose to use actual spending, as opposed to total resource costs, to calculate the performance incentive associated with the value component (Statewide Plan, Exh. 1, at 162).

In the benefit-cost screening model, the total resource cost of measures is fixed[42] (e.g., the actual cost of a light bulb does not change due to the participant incentive or the customer contribution) (see, e.g., Exh. CMA-5). Therefore, under the current method of calculating the value component, total resource costs remain the same no matter what the split is between participant incentive and customer contribution. Under the Program Administrators' proposal, the value component calculation will no longer represent net benefits but instead, total benefits minus implementation costs (Statewide Plan, Exhs. 1 at 162; App. R (Rev.) (December 20, 2018); see, e.g., Exh. CMA-4 (Rev.) (December 20, 2018)). Absent customer contributions, performance incentives will be based on implementation costs. For this reason, DOER maintains that a revised calculation of the value component could result in Program Administrators favoring measures that require lower Program Administrator-specific investment rather than measures that have a higher net benefit to customers (DOER Reply Brief at 8). We disagree.

The Program Administrators have shown that they continuously review the measures in their programs to achieve the right level of participant incentives (Exh. DPU-Comm 4-9). For example, the Program Administrators revised their weatherization incentives in 2017, as increased savings per insulation job and increased levels of customer participation were

42 If participant incentives increase, participant costs decrease, which continues until a 100 percent incentive is offered (see, e.g., Exh. CMA-5).

determined to justify a higher participant incentive (Exh. DPU-Comm 11-6). Further, the savings component, which remains the largest component of the performance incentive mechanism (at 61.5 percent of the total incentive), will continue to be based on total benefits (Statewide Plan, Exh. 1, App. R (Rev.) (December 20, 2018)). Therefore, we do not find it likely that the Program Administrators will favor lower participant incentives to earn a higher value component at the cost of a lower savings component. Instead, we find that the proposed changes to the calculation of the value component will encourage the Program Administrators to find the right participant incentive in order to maximize, not only the value component, but the overall performance incentive.

For the reasons discussed above, the Department approves the Program Administrators' proposal to calculate the value component using actual spending, as opposed to total resource costs. To allow the Department and other stakeholders to assess the differences in calculation methods, each Program Administrator shall provide an illustrative report as part of its Term Report showing a calculation of the value component using net benefits and a calculation of the value component using the revised method approved by the Department.

d. Renter Component

The Program Administrators propose to add a new renter component to the performance incentive mechanism and allocate funds from the statewide incentive pool to this effort (i.e., one million dollars for gas and two million dollars for electric) (Statewide Plan, Exh. 1, at 164; Statewide Plan, Exh. 1, App. C (Rev.) (December 20, 2018)). The Program

Administrators maintain that the purpose of the new renter component is to provide them with additional encouragement to successfully serve all residential renters and to track the number of renters served (Program Administrators Reply Brief at 18, citing Statewide Plan, Exh. 1, at 164; Exh. DPU-Comm 1-10; Tr. 2, at 243). DOER and other parties largely support the adoption of the renter component[43] (Attorney General Brief at 13-14; DOER Brief at 18-19; Acadia Brief at 18-20; CLF Brief at 27-31).

Through multiple programs over several plan years, the Program Administrators have been serving renters. The Program Administrators were not, however, consistently tracking the status of these participants as renters because it was not considered essential to the achievement of savings (Tr. 2, at 239; Program Administrators Brief at 55). See 2016-2018 Three-Year Plans Order, at 26; see also 2013-2015 Three-Year Plans Order, at 45-48. As a result, the primary barrier to understanding how renters have been served is a lack of actionable information regarding levels of renter participation (Exhs. DPU-Comm 1-4; DPU-Comm 1-10; DPU-Comm 1-20).

The Department has several concerns about the proposed design of the renter component. First, under the renter component as designed, the Program Administrator would collect a $20 incentive payment for serving a renter and then could also apply any savings or benefits from serving that renter to achievement of the savings and value components (Exh. DPU-Comm 1-4). This would lead to a Program Administrator achieving

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[43] Although it supports the proposal, PowerOptions asserts that the renter component should be expanded to include C&I renters not providing a residential end use, such as non-profits (PowerOptions Brief at 12).

an incentive in multiple incentive components for a single action. Further, even if the renter component threshold[44] is not achieved, it still would be possible for a Program Administrator to receive performance incentives for the benefits and net benefits associated with the measures installed if those components achieve their threshold levels (Exhs. DPU-Comm 1-6; DPU-Comm 10-5). In that case, Program Administrators still would be collecting performance incentives related to activities that had failed to achieve a threshold level goal, rendering the renter component threshold superfluous.

Most importantly, the Department has long held that performance metrics should induce Program Administrators to undertake activities they would not otherwise undertake. Performance Metrics, D.P.U. 13-67, at 10-11 (2014), citing 2010-2012 Gas Three-Year Plans Order, at 109-110; 2010-2012 Electric Three-Year Plans Order, at 120. Here, the proposed renter component would provide performance incentive payments to the Program Administrators to undertake activities that they are already obligated by the Green Communities Act to undertake. See G.L. c. 25, § 21(a); D.P.U. 13-67, at 12, citing Order on New and Revised Performance Incentive Metrics, D.P.U. 09-120-B through D.P.U. 09-127-B (2010). Further, the Program Administrators have already undertaken activities in an effort to serve renters more successfully. See 2016-2018 Three-Year Plans Order, at 26; 2013-2015 Three-Year Plans Order, at 45-48. Given that the Program Administrators are already obligated to serve renters, the real issue is whether a performance

[44] The proposed threshold for earning performance incentives for the renter component is based on achieving 75 percent of planned portfolio renter participants and will be capped at 125 percent of design level (Statewide Plan, Exh. 1, at 165).

incentive is a necessary and appropriate tool to ensure that renter participants will be appropriately tracked.

The Program Administrators state they are willing to track renter participation and could weigh the results against the renter participant target that was developed as part of the renter component (Tr. 2, at 245). Further, the Program Administrators have confirmed that they could develop an alternate method to track renters, even without the incentive provided by the renter component (Tr. 2, at 244-245). Accordingly, the Department finds that a performance incentive is not necessary to ensure that renter participation will be appropriately tracked.

For the reasons discussed above, the Department declines to approve the proposed renter component. The Program Administrators shall remove all incentive dollars allocated to the renter component from their performance incentive models. Instead, the Department directs the Program Administrators to track and report the number of renter participants by dwelling unit. In addition, the Program Administrators shall track and report all readily available Mass Save participant data by (1) renter or owner status, (2) income-level, and (3) primary language.

e. Active Demand Reduction Savings Component

The 2019-2021 Three-Year Plans include several proposed active demand reduction initiatives (see Section III above) as well as a targeted savings component incentive mechanism for active demand reduction for electric Program Administrators (Statewide Plan, Exh. 1, at 169; Statewide Plan, Exh. 1, App. R (Rev.) (December 20, 2018)). The proposed

active demand reduction component, which has not been offered as part of previous three-year plans, is designed to encourage the accelerated performance of active demand measures in the 2019-2021 Three-Year Plans (Tr. 2, at 246). Acadia and DOER support the proposed active demand reduction savings component as a means to encourage electric Program Administrators to pursue demand reduction efforts (DOER Brief at 17; Acadia Brief at 21).

The active demand reduction market[45] is new and not as robust as the energy efficiency market that the Program Administrators have helped cultivate and transform over several decades (Statewide Plan, Exh. 1, at 162-163; see Tr. 2, at 246). The Program Administrators correctly maintain that significant efforts will be required on their part to develop a market that can successfully deliver active demand reduction benefits for customers (Program Administrators Brief at 54, citing Statewide Plan, Exh. 1, at 162-163; see Tr. 2, at 246). After review, the Department finds the proposed active demand reduction savings component is appropriately designed to overcome barriers to the nascent active demand reduction market and otherwise consistent with the Department's principles for the design of a performance incentive mechanism. Accordingly, the Department approves the proposed active demand reduction component.

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[45] Unlike large C&I customers, most residential and small C&I customers currently do not pay demand charges or employ time varying rates and, therefore, have no direct incentive to decrease usage during specific peak demand periods (Statewide Plan, Exh. 1, at 67).

Savings from active demand reduction measures could be counted either as active demand reduction savings or as traditional energy efficiency savings in the performance incentive model and, therefore, the savings will need to be appropriately tracked and allocated (Tr. 2, at 248-249). Consistent with Department precedent concerning split incentives, the Program Administrators shall ensure, through the Common Assumptions Working Group, that all savings associated with active demand reduction are appropriately tracked and consistently allocated to the savings component to avoid the double counting of benefits in the performance incentive model (Tr. 2, at 248-252). 2016-2018 Three-Year Plans Order, at 68-69.

f. Cost-Effective Programs

As discussed in Section V above, the Energy Act of 2018 allows for cost effectiveness to be aggregated at the sector level. G.L. c. 25, § 21(b)(3). Those amendments to the Green Communities Act did not, however, impact the statutory requirement that the Department consider "the effect of any rate increases on residential and commercial customers" in evaluating other funding sources for energy efficiency programs or the statutory mandate that "[t]o mitigate capacity and energy costs for all customers, the [D]epartment shall ensure that . . . resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply." G.L. c. 25, §§ 19(a)(3)(i), 21(a). In considering how to fulfill our mandate to weigh rate and bill impacts as well as our general authority to ensure that costs collected from ratepayers are reasonable and prudently incurred, the Department determines it is

appropriate to continue to allow recovery of performance incentives only for the delivery of cost-effective programs.[46]

As we have stated previously, there must a balance between flexibility and managing spending efficiently as program budgets continue to increase. 2016-2018 Three-Year Plans Order, at 77. Just as reviewing cost effectiveness at the sector level[47] will afford the Program Administrators greater flexibility in program design, we find that tying the achievement of performance incentives to the delivery of cost-effective programs will send the appropriate signals for Program Administrators to focus on cost efficiency, as well as cost effectiveness. The Department expects that the Program Administrators will continue to deliver cost-effective core initiatives over the Three-Year Plan term and manage their costs efficiently to maximize benefits for customers. See 2016-2018 Three-Year Plans Order, at 77. In the instance that a program is not cost effective in a particular year or over the term, the Program Administrators shall remove performance incentives for the associated non-cost-effective core initiatives only.

This change to the performance incentive model is not intended to prevent a Program Administrator from achieving the threshold level.[48] In order to address this potential

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46 A program is cost effective if its benefits are greater than its costs, and is comprised of one or more core initiatives. (see Statewide Plan, Exh. 1, App. R (Rev.) (December 20, 2018)).

47 A sector is made of up programs, which are comprised of core initiatives.

48 The performance incentive model calculates total benefits and net benefits to determine if a Program Administrator meets its threshold level of performance for

unintended consequence, all costs and benefits associated with both cost-effective and the non-cost-effective core initiatives shall be included in the calculation of the savings and value components of the model submitted with the Term Report. After the model produces a total performance incentive to be collected, the Program Administrator shall reduce the total performance incentive by the planned amount of performance incentive associated with the reported non-cost-effective core initiatives.[49]

By allowing the Program Administrators to aggregate cost effectiveness at the sector level while permitting performance incentives only for cost-effective programs, the Department can fulfill the Legislative mandate expanding the scope and flexibility of energy efficiency planning while continuing to incorporate the essential ratepayer protections in the Green Communities Act regarding cost effectiveness, funding, and bill impacts.

E. Conclusion

For the reasons discussed above, the Department approves the Program Administrators' proposed (1) structure of the performance incentive mechanism for the savings and value components, and (2) calculation of the savings and value component payout rates. The Department declines to approve the proposed renter component and, instead,

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earning an incentive (Statewide Plan, Exh. 1, App. R (Rev.) (December 20, 2018)). See 2016-2018 Three-Year Plans Order, at 57-58.

[49] Similarly, in planning each program and core initiative, costs and benefits should be allocated a performance incentive amount, even if it is not planned to be cost effective (see, e.g., Exh. CMA-4 (Rev.) (December 20, 2018)). The Program Administrator can only earn the associated performance incentive if a program is shown to be cost effective in the Annual Reports or Term Report.

directs the Program Administrators to track and report certain data about renter participants. The Department approves the proposed active demand reduction component.

With the exception of the dollar amounts associated with the renter component, the Department approves the Program Administrators' proposed statewide incentive pool (Statewide Plan, Exh. 1, App. R (Rev.) (December 20, 2018)). The Program Administrators shall calculate performance incentives under the value component using actual spending. As part of their Term Reports, the Program Administrators shall show an illustrative calculation of the value component using net benefits. Finally, the Program Administrators may recover performance incentives only for the delivery of cost-effective programs.

VII. 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., an EES). G.L. c. 25, §§ 19(a), 21(b)(2)(vii). In approving a funding mechanism for electric Program Administrators, the Department must consider: (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 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 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 a funding mechanism for gas Program Administrators, the Department must consider the effect of any rate increases on consumers. D.P.U. 08-50-A at 56; Guidelines § 3.2.2.2.

B. Program Administrators Proposal

1. Non-Energy Efficiency Surcharge Revenues

Each electric Program Administrator projected revenues from non-EES funding sources for each year of its Three-Year Plan in the following manner: (1) projected SBC revenues 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 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 calculated by multiplying projected RGGI clearing prices by a projection of allowance sales in each RGGI auction, with 55 percent of the revenues allocated to electric efficiency programs (Statewide Plan, Exh. 1, at 183-184; App. C - Electric, Table IV.B.3.3).

The electric 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 182).

2. Energy Efficiency Surcharge Revenues

The electric Program Administrators propose to collect the difference between (1) the proposed budget for the applicable year and (2) projected revenues from non-EES funding sources for that year through their energy efficiency reconciliation factor ("EERF") tariffs (see, e.g., Statewide Plan, Exh. 1, at 184-185; Exh. NG-Electric-4, 17 (Rev.) (December 20, 2018)). The electric Program Administrators calculate separate EERFs for their residential, low-income, and C&I customer classes (see, e.g., Exh. NG-Electric-4 (Rev.) (December 20, 2018)).

The gas Program Administrators propose to collect their proposed budgets for each year through their local distribution adjustment factor ("LDAF") as established by their local distribution adjustment clause ("LDAC") tariffs (Statewide Plan, Exh. 1, at 26, 183, 185).

3. Other Funding Sources

The Program Administrators, citing an absence of viable other funding sources, do not project any revenues from other funding sources during the upcoming three-year term (Statewide Plan, Exh. 1, at 185). The Program Administrators state, however, that they will continue to actively pursue other sources of funding during the Three-Year Plan term (Statewide Plan, Exh. 1, at 185).

4. Bill Impacts

Each Program Administrator submitted bill impacts for both non-participants and participants for each year of the Three-Year Plan (see, e.g., Statewide Plan, Exh. 1, at 186-187; Exh. NG-Electric-6). To calculate bill impacts for program participants, the

Program Administrators developed statewide estimates to approximate savings for each customer class[50] (Statewide Plan, Exh. 1, at 186-187). The participant bill impacts are based on average monthly usage levels (pre-participation) over the term of the Three-Year Plan (see, e.g., Statewide Plan, Exh. 1, at 186-187; Exh. NG-Electric-6).

C. Positions of the Parties

1. Program Administrators

The Program Administrators argue that they have complied with all statutory and Department requirements with respect to energy efficiency program funding (Program Administrators Brief at 47). The Program Administrators maintain that the bill impacts associated with the proposed Three-Year Plans demonstrate their focus to acquire all cost-effective energy efficiency with the lowest reasonable customer contribution (Program Administrators Brief at 40, 44). The Program Administrators contend that the bill impacts are reasonable in light of the total anticipated benefits of approximately $8.5 billion and persistence of savings to be achieved (Program Administrators Brief at 44-45). The Program Administrators contend that, contrary to CLF's assertions, all Program Administrators seek to develop aggressive programs, and then assess the potential rate impacts, and refine the programs through an iterative process as well as a rigorous stakeholder process (Program Administrators Reply Brief at 5 n.7). Therefore, the Program Administrators argue that the

[50] 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 have all potential measures installed (Statewide Plan, Exh. 1, at 186-187).

Department should find that the bill impacts are reasonable and consistent with Department precedent, and that the Department should approve the funding of the energy efficiency programs as proposed (Program Administrators Brief at 45, 47).

2. Attorney General

The Attorney General argues that the customer bill impacts are measured and sustainable in light of the projected savings and total benefits (Attorney General Brief at 3)

3. Department of Energy Resources

DOER argues that the Program Administrators' Three-Year Plans strike an appropriate balance between the pursuit of all cost-effective energy efficiency and demand reduction, and bill impacts on ratepayers (DOER Brief at 8). In addition, DOER maintains that the Program Administrators have taken appropriate steps to identify other funding sources to minimize bill impacts related to the Three-Year Plans (DOER Brief at 10).

4. Conservation Law Foundation

CLF contends that the Program Administrators are using bill impacts to avoid implementing new initiatives with significant upfront costs (e.g., the Cape and Vineyard Electrification Offering ("CVEO")) rather than developing a plan to achieve all cost-effective energy efficiency, then assessing the customer contribution, and adjusting as necessary (CLF Brief at 14-15). CLF argues that bill impacts should be a factor for Department consideration rather than a limiting factor for the Program Administrators in designing the Three-Year Plans (CLF Brief at 15). In weighing the reasonableness of bill impacts, CLF recommends that the Department compare the change between a representative customer's

highest, lowest, and average monthly bills within a rate class during a recent year to give the analysis context (CLF Brief at 15 n.7).

5. PowerOptions

PowerOptions asserts that the 2019-2021 Three-Year Plans represent a significant increase in the C&I budget compared to previous years (PowerOptions Brief at 7). Therefore, PowerOptions recommends that the Department review the electric C&I sector budget to ensure the funding levels are appropriately sized to balance bill impacts and the achievement of savings (PowerOptions Brief at 8).

D. Analysis and Findings

1. Non-Energy Efficiency Surcharge Revenues

The electric Program Administrators anticipate that they will receive revenues through the following non-EES funding sources: (1) the SBC; (2) participation in the FCM; and (3) RGGI proceeds (Statewide Plan, Exh. 1, at 182). The Department finds that each electric Program Administrator projected its 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 183). The Department also finds that each electric Program Administrator projected its FCM revenues over the three-year term in a reasonable manner (Statewide Plan, Exh. 1, at 183-184).

Historically, the Program Administrators have assumed that, based on G.L. c. 25, §19(a), not less than 80 percent of RGGI revenues would be allocated to electric energy efficiency programs (Statewide Plan, Exh. 1, at 184, citing G.L. c. 25, §19(a)). In recent

years, however, significantly less RGGI revenues than projected have been allocated to electric energy efficiency programs (i.e., between 55 to 79 percent in 2016, between 28 to 70 percent in 2017, between 27 to 40 percent in 2018) (Exh. DPU-Electric 4-1, Att.).

As noted above, in the current Three-Year Plans, the electric Program Administrators have assumed that only 55 percent of projected RGGI revenues will be allocated by DOER to electric energy efficiency programs (Statewide Plan, Exh. 1, at 183-184; App. C - Electric, Table IV.B.3.3). For these Three-Year Plans, the Program Administrators consulted DOER to forecast the RGGI revenues that will be allocated to electric energy efficiency programs (Statewide Plan, Exh. 1, at 184). In this regard, DOER explains that it first allocates RGGI revenues to the non-energy efficiency related purposes set forth in G.L. c. 21A, § 22(c)(1), and then it allocates 80 percent of the remaining funds to offset the cost of electric energy efficiency program delivery (Exh. DPU-DOER 1-1).

The Department must consider the effect of any rate increases on consumers prior to approval of an energy efficiency funding mechanism and, therefore, it is essential that projections of non-EES revenues are as accurate as possible. G.L. c. 25, § 19(a). The costs of energy efficiency programs are borne by ratepayers and, therefore, any decrease in non-EES revenues represents a direct increase in costs for electric customers. Given the potential conflict between the language regarding the allocation of RGGI funding contained in G.L. c. 25, § 19(a) and G.L. c. 21A, § 22(c)(1), the Department does not have a sufficient record to determine whether each electric Program Administrator has projected its RGGI revenues over the three-year term in a reasonable manner. Instead, the Department finds that

further discussion between the electric Program Administrators and DOER is warranted to resolve this issue in order to ensure that RGGI revenues are projected and allocated in a transparent manner that is consistent with the Green Communities Act (see Exh. DPU-DOER 1-1). The Program Administrators, in consultation with DOER, shall file a report with the Department addressing this issue no later than July 1, 2019.

2. Energy Efficiency Surcharge Revenues

Pursuant to the Green Communities Act, each Three-Year Plan must include a fully reconciling funding mechanism (i.e., an 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 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.

3. Other Funding Sources

In approving an energy efficiency funding mechanism for the electric Program Administrators, the Department must 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.

The Program Administrators have adequately demonstrated that outside funding sources for energy efficiency investments are currently scarce (Statewide Plan, Exh. 1, at 185-186). 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 other energy efficiency funding and shall account for outside funding wherever practicable.

4. Cost of Electricity to Consumers

In approving an energy efficiency funding mechanism for the electric Program Administrators, the Department must 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. H, at 27-29). 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. H at 26-29, 110-132, 212-233; see also Exh. Eversource Energy (electric)-6, at 110-340). Accordingly, the Department finds that past energy efficiency programs have lowered electricity costs to consumers.

5. Bill Impacts

The Department must consider bill impacts when approving the use of customer funds for energy efficiency programs. D.P.U. 08-50-A at 56-58; 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, 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; 2010-2012 Electric Three-Year Plans Order, at 88; 2010-2012 Gas Three-Year Plans Order, at 74. On a statewide basis, the Three-Year Plans are expected to provide total benefits of approximately \$8.5 billion and net benefits of approximately \$5.8 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 10). Total lifetime energy savings associated with the proposed energy efficiency programs will cost roughly \$0.054 per kWh for electric efficiency programs and \$0.64 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 142-143, App. H at 22-23).

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 CO_2 emissions by more than 2.6 million short tons over the three-year term (Statewide Plan, Exh. 1, at 7). 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 particularly mindful of the burdens associated with increased rates. 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.

Contrary to CLF's arguments, the Department finds that the Program Administrators have appropriately considered bill impacts when developing their proposed Three-Year Plans (see CLF Brief at 15; Statewide Plan, Exh. 1, at 145, 150-151, 187). We note that the bill impacts reflect savings targets that were developed through the Council's robust stakeholder process and approved unanimously by the Council (see Statewide Plan, Exh. 1, App. G).

Further, in response to PowerOptions' arguments, we find that the Program Administrators have appropriately weighed bill impacts when considering the proposed increases to the electric C&I sector budgets (PowerOptions Brief at 7, citing Statewide Plan,

Exh. 1, App. C - Electric at 13). As noted above, in consultation with the Council, the Program Administrators have set savings targets for these Three-Year Plans that are designed to achieve all cost effective energy efficiency and demand response. To achieve these goals, the electric Program Administrators propose budgets that include several new programs and initiatives that will provide significant benefits to C&I customers, including active demand reduction (Statewide Plan, Exhs. 1, at 76-80). In addition, the electric Program Administrators propose to broaden their non-electric services to C&I customers, including incentives for cost-effective oil heating equipment (Statewide Plan, Exh. 1, at 110-111). As the Attorney General and DOER note, the proposed budgets, including the electric C&I budgets, are appropriately designed to pursue savings targets while minimizing customer bill impacts (Attorney General Brief at 10; DOER Brief at 8).

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 is reasonable (see Exhs. CMA-6 (Rev.) (November 1, 2018), NG-Gas-6, FGE (Gas)-6, LU-6 (Rev.) (November 1, 2018), Eversource Energy (gas)-6, BGC-6, NG- Electric-6, FGE (Electric)-6, Eversource Energy (electric)-6, Compact-6 (Rev.) (December 20, 2018).[51]

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[51] 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 pursuant to Guidelines at § 3.8, and the additional RCS budget funding for energy scorecards addressed in Section IX.E, below.

E. Conclusion

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 rate increases on consumers, the Department finds that each Program Administrator may recover the funds to implement its energy efficiency plan through its EES. The electric Program Administrators shall, in consultation with DOER, file a report with the Department no later than July 1, 2019, addressing the allocation of RGGI revenues.

VIII. CAPE LIGHT COMPACT

A. Introduction

The Compact is the only energy efficiency Program Administrator that is not an investor-owned utility. Rather, the Compact is a municipal aggregator that has also received Department approval to administer electric energy efficiency in its service area. See, e.g., Cape Light Compact, D.P.U. 15-166 (2016). NSTAR Electric is the electric distribution company serving the Compact's customers. National Grid (gas) is the local gas distribution company serving natural gas customers in the Compact's service area.

Based on our review of the Compact's proposed Three-Year Plan, several issues warrant discussion in the sections below: (1) the Compact's proposed Statewide Plan enhancements; (2) coordination of the Compact's proposed active demand reduction offerings with NSTAR Electric; (3) the allocation of costs between the Compact's municipal aggregation plan and its energy efficiency plan; and (4) the administration of energy efficiency services to gas customers in the National Grid (gas) service territory.

B. Statewide Plan Enhancements

1. Introduction

Pursuant to G.L. c. 164, § 134(b), the Compact may propose enhancements to the Statewide Plan (Exh. DPU-Compact 1-32 (Rev.) at 1). In its 2019-2021 Three-Year Plan, the Compact proposes to offer the following new enhancements to the Statewide Plan: (1) an upfront, 100 percent incentive for storage systems and (2) a strategic electrification offering, CVEO (Statewide Plan, Exh. 1, App. K – Cape Light Compact; Exh. DPU-Compact 1-32 (Rev.)). In addition, the Compact proposes to continue to offer the following enhancements: (1) an uncapped, 100 percent incentive for qualified weatherization measures to electric customers (a) who are year-round renters and responsible for paying the electric bill, or (b) whose operations are managed by municipalities or other government entities; (2) cost-effective thermal measures to save oil, propane, and other unregulated fuels under the Compact's New Construction and Major Renovation program for C&I customers; (3) specialized incentives that cover up to 100 percent of cost-effective measures for C&I municipal customers; (4) a 95 percent incentive for qualifying small business tenants; (5) zero interest financing for small business customers; (6) a business energy audit and a core offering of deemed savings measures, some at 100 percent incentive coverage; (7) a 100 percent incentive for standard direct install measures for small business customers; and (8) a 100 percent incentive for all cost-effective measures for qualifying non-profits[52]

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[52] The Compact first identified items (2) through (8) as Statewide Plan enhancements in its initial filing and in discovery responses (Statewide Plan, Exh. 1, App. K – Cape Light Compact; Exh. DPU-Compact 1-32 (Rev.)). The Compact later reversed itself

(Statewide Plan, Exh. 1, App. K – Cape Light Compact; Exh. DPU-Compact 1-32 (Rev.)).

2. Cape Light Compact Proposal

a. Enhanced Storage Incentive

The Compact proposes to install 1,000 battery storage systems during the 2019-2021 Three-Year Plan term (it proposes to install 700 of these battery storage systems through the CVEO) (Exh. Compact-2 (Joint Prefiled Testimony) at 14). The Compact states that it will offer a "bring your own battery" program if enough batteries can be enrolled to overcome the fixed costs necessary to acquire the ability to dispatch the batteries (Exh. Compact-2 (Joint Prefiled Testimony) at 17).

The Compact proposes an upfront, 100 percent incentive to participating residential and C&I customers in exchange for dispatch rights over the warrantied life of the batteries (i.e., ten years) (Exh. Compact-2 (Joint Prefiled Testimony) at 14). Consistent with the proposed statewide daily dispatch active demand reduction offerings, the Compact proposes to dispatch the batteries on a daily basis during the summer months and on a targeted basis during the winter months (Exh. Compact-2 (Joint Prefiled Testimony) at 16).

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and testified that these incentives were previously offered through custom C&I measures and, therefore, were consistent with the Statewide Plan (i.e., they were not Statewide Plan enhancements) (Tr. 3, at 367-368). Based on the representations made by the Compact in its initial filing and responses to discovery, and its description of these incentives in prior three-year plan filings, the Department will treat these proposed incentives as Statewide Plan enhancements (see, e.g., D.P.U. 15-166, Exh. 1, App. L).

b. Cape and Vineyard Electrification Offering

The Compact proposes to offer a strategic electrification offering (i.e., the CVEO), which will provide enhanced incentives for the combined installation of (1) cold-climate air-source heat pumps, (2) solar photovoltaic ("PV"), and (3) behind-the-meter battery storage (Exh. Compact-2 (Joint Prefiled Testimony) at 4). The Compact states that the CVEO is designed to reduce overall customer energy usage, while offsetting the increased electric usage from cold-climate air-source heat pumps with renewable energy generation and providing storage for active demand reduction and resiliency purposes (Exh. Compact-2 (Joint Prefiled Testimony) at 4-5).

Through the CVEO, the Compact proposes to target 700 residential customers that heat their homes with oil, propane, or electric baseboard heat, split evenly across low-income, moderate-income, extended-moderate-income, and market-rate customers (Exh. Compact-2 (Joint Prefiled Testimony) at 6). Participating customers will be required to implement all three measures; however, customers that have already installed one or two of the three measures will still be eligible for enhanced incentives for the remaining measure(s) (Exhs. Compact-2 (Joint Prefiled Testimony) at 7, 11; DPU-Compact 1-4; DPU-Compact 1-5).

The Compact proposes tiered incentives so that the customer contribution increases as the customer's ability to pay increases (Exhs. Compact-2 (Joint Prefiled Testimony) at 7; DPU-Compact 1-14). For the cold-climate air-source heat pump component, low- and moderate-income customers will receive the measure at no cost. Extended-moderate-income

and market-rate customers will be offered 70 percent and 45 percent incentives, respectively, with the balance eligible for funding through the HEAT Loan (Exh. Compact-2 (Joint Prefiled Testimony) at 8).

For the solar PV component, low-income customers will receive the measure at no cost, moderate-income customers will receive a 60 percent incentive with the balance eligible for funding through the HEAT Loan, and extended-moderate-income and market-rate customers will be able to fund the entire cost through the HEAT Loan (Exh. Compact-2 (Joint Prefiled Testimony) at 8). For the storage component, all customers will be eligible for an upfront, 100 percent incentive (Exhs. Compact-2 (Joint Prefiled Testimony) at 8; DPU-Compact 1-15).

The Compact proposes a budget of approximately $37 million over the three-year term for the CVEO, which includes the costs for all batteries included in the Compact's active demand reduction efforts[53] (Exh. Compact-2 (Joint Prefiled Testimony) at 9-10). The Compact states that it intends to competitively procure a qualified vendor to serve as the CVEO program coordinator to facilitate its implementation (Exh. Compact-2 (Joint Prefiled Testimony) at 10). Finally, the Compact states that it intends to evaluate the CVEO consistent with the statewide evaluation protocols (Exh. Compact-2 (Joint Prefiled Testimony) at 10).

[53] The Compact states that it has requested outside funding from DOER and the Massachusetts Clean Energy Center for its proposed CVEO enhancements, but it has not secured any outside funding to date (Exh. Compact-2 (Joint Prefiled Testimony) at 11).

3. Positions of the Parties

a. Cape Light Compact

The Compact contends that its Three-Year Plan is designed to capture all cost-effective energy efficiency and demand reduction resources in a manner that is tailored to meet the demands of its unique service area (Program Administrators Brief at 64). The Compact further asserts that its proposed Three-Year Plan incorporates Council and stakeholder input and provides significant benefits to customers in its service area and the Commonwealth without overly burdensome bill impacts (Program Administrators Brief at 65-66).

The Compact argues that, as part of its Three-Year Plan, it has proposed to implement limited, cost-effective enhancements to the Statewide Plan that are sensitive to customer bill impacts and minimize administrative costs (Program Administrators Brief at 64-65). The Compact argues that if the Department does not approve these proposed measures designed for its unique service area, that decision would undermine the Compact's energy efficiency planning, the Green Communities Act's directives regarding the pursuit of all cost-effective energy efficiency, and the authority of the Compact under G.L. c. 164, § 134(b) to offer enhancements to the Statewide Plan (Program Administrators Brief at 65). Therefore, the Compact requests that the Department approve its proposed Three-Year Plan, as filed (Program Administrators Brief at 65). Further, the Compact argues that the Department should certify the Compact's proposed Three-Year Plan and find that it is an

energy plan that it is consistent with state energy efficiency goals under G.L. c. 164, § 134(b)[54] (Program Administrators Brief at 68).

The Compact states that, as a public entity, it has no shareholders, has no rate of return, does not collect performance incentives, and is accountable to its Governing Board, comprised of representatives appointed by its municipal members (Program Administrators Brief at 66). The Compact asserts that its Governing Board sets policy and oversees the development and implementation of the Compact's energy efficiency programs (Program Administrators Brief at 66). The Compact maintains that its governing structure allows it to be responsive to consumer needs and concerns (Program Administrators Brief at 66).

With respect to its proposed enhancements, the Compact maintains that it designed the CVEO proposal based on feedback from LEAN, the Attorney General, DOER, and the Massachusetts Clean Energy Center (Program Administrators Brief at 67). The Compact argues that the Council also had the opportunity to review and comment on the CVEO prior to submission to the Department (Program Administrators Brief at 67). Finally, the Compact notes that its customers and several state legislators have expressed support for the proposed CVEO (Program Administrators Brief at 67).

The Compact contends that the CVEO is an integrated approach to strategic electrification focused on moving customers off oil, propane, and electric baseboard heat

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[54] The Compact contends that since the passage of the Green Communities Act, the Department's approval of the Compact's three-year plans was an implicit certification that its energy plans were consistent with state energy efficiency goals (Program Administrators Brief at 68).

(Program Administrators Brief at 69). The Compact maintains that the bundling of three established technologies through the CVEO (i.e., cold-climate air-source heat pumps, solar PV, and behind-the-meter battery storage) will provide residential customers with the opportunity to optimize their overall energy usage (Program Administrators Brief at 69). Further, the Compact asserts that the CVEO is consistent with the recent amendments to the Green Communities Act because it (1) promotes strategic electrification through the use of heat pumps, (2) includes storage, and (3) supports customer switching to renewable energy sources through the solar PV component (Program Administrators Brief at 70).

The Compact argues that the proposed CVEO incentive levels are necessary and appropriate (Program Administrators Brief at 70). More specifically, the Compact asserts that, with the exception of moderate-income customers, the proposed heat pump incentive is consistent with the proposed statewide incentives (Program Administrators Brief at 71). The Compact argues that an increased incentive for moderate-income customers is warranted because these customers do not have sufficient disposable income to support the installation of higher priced energy efficiency measures (Program Administrators Brief at 71).

Further, the Compact notes that it is the only Program Administrator to propose solar PV incentives as part of its Three-Year Plan (Program Administrators Brief at 73). The Compact asserts that it is appropriate to offer solar PV incentives to low- and moderate-income customers because these customers do not have the disposable income or the capacity to take on additional debt to finance solar PV (Program Administrators Brief at 73). The Compact maintains that its proposed incentive structure is designed to

complement the incentives already available through the SMART program (Program Administrators Brief at 73 n.40).

The Compact argues that its proposed, upfront 100 percent storage incentive will ensure that the CVEO will result in cost-effective demand reductions in the Compact's service area, which it maintains has a higher proportion of residential and small business customers than the other Program Administrators' service territories (Program Administrators Brief at 72). The Compact contends that an upfront storage incentive is appropriate for these customers because, without coincident peak or demand charges, or time-varying rates, these customers lack a direct financial incentive to reduce demand during peak times (Program Administrators Brief at 72). The Compact maintains that the Council has recommended the implementation of an upfront storage incentive and that its proposed incentive structure will provide valuable information for future statewide battery storage measures (Program Administrators Brief at 72, citing Tr. 3, at 398-399). In addition, the Compact asserts that its analysis suggests that an upfront incentive is less costly over a ten-year period than the statewide pay-for-performance approach (Program Administrators Brief at 72-73, citing Exh. Compact-13).

The Compact asserts that each of the CVEO's three measures is cost effective, resulting in an additional $2.54 in benefits for every enhancement dollar spent (Program Administrators Brief at 75-76). In particular, the Compact argues that its proposed battery storage offering remains cost effective even if the measure life is reduced by half (Program Administrators Brief at 74). In addition, the Compact maintains that its Three-Year Plan

remains cost effective at the sector level even if an in-service rate of zero is assumed for the battery units (Program Administrators Brief at 74).

The Compact maintains that the proposed CVEO budget is comprehensive and may, in fact, be overstated as it assumes that all participants would require all three measures (Program Administrators Brief at 74). Nonetheless, the Compact asserts that the bill impacts associated with the CVEO are reasonable in light of the additional benefits and savings that it will yield (Program Administrators Brief at 74).

The Compact maintains that it plans to evaluate the CVEO consistent with the statewide evaluation protocols (Program Administrators Brief at 76). The Compact asserts that it will share progress and results with the other Program Administrators through working groups and/or management committees (Program Administrators Brief at 76). Finally, the Compact maintains that it will review forthcoming evaluations of other Program Administrators' active demand reduction demonstration offerings to better implement the CVEO (Program Administrators Brief at 76).

b. Attorney General

The Attorney General maintains that the proposed CVEO is intended to advance the policy objectives of the Energy Act of 2018, including the promotion of clean renewable energy and energy storage (Attorney General Brief at 14; Attorney General Reply Brief at 4). Although the Attorney General supports the concept of the CVEO, she questions certain aspects of the expert analysis provided by the Compact to support it (Attorney General Brief at 16-18, citing Exh. Compact-12; Attorney General Reply Brief at 3-4). Accordingly, the

Attorney General argues that the Department should carefully assess whether the costs of the CVEO can be accommodated with reasonable customer bill impacts (Attorney General Brief at 16-18; Attorney General Reply Brief at 3-4).

c. Department of Energy Resources

DOER supports the Compact's enhanced storage incentive as a strategy to ensure the equitable deployment of active demand reduction programs in the Compact's service area (DOER Reply Brief at 9). DOER notes that the Compact is the only Program Administrator to propose a cost-effective upfront rebate for energy storage, as requested by the Council (DOER Reply Brief at 9). Further, DOER states that it supports the CVEO as a concept and maintains that it is appropriately designed to help low- and moderate-income customers (DOER Reply Brief at 9). However, DOER argues that there are significant incentives and financing currently available for solar PV systems and the Department should not permit the Compact to finance the solar PV component of the CVEO through its Three-Year Plan (DOER Reply Brief at 9). DOER recommends that the Department should direct the Compact to educate its customers regarding these other solar PV funding sources (DOER Reply Brief at 9).

d. Acadia Center

Acadia supports the Compact's enhanced incentives for storage and its bundled offering of technologies in the CVEO (Acadia Brief at 11-12). Acadia asserts that the Compact is the only Program Administrator that proposes to offer upfront rebates for storage as requested by the Council (Acadia Brief at 11-12). Acadia argues that upfront incentives

for storage are necessary given the lack of time-varying rates and demand charges (Acadia Brief at 12). Acadia maintains that it is within the Compact's authority under G.L. c. 164, § 134(b) to propose these enhanced incentives and that they are consistent with the statutory requirement to pursue all cost-effective energy efficiency and demand resources (Acadia Brief at 12-13). Therefore, Acadia recommends that the Department approve the Compact's Three-Year Plan as proposed, including the enhanced storage incentive and CVEO (Acadia Brief at 13).

e. Conservation Law Foundation

CLF argues that the Compact's proposed CVEO and enhanced storage incentive offerings are cost effective and innovative strategies that are designed to meet the requirements of the Green Communities Act (CLF Brief at 45). CLF maintains that the Compact has the statutory authority under G.L. c. 164, § 134(b) to offer enhanced incentives beyond those contained in the Statewide Plan (CLF Brief at 44). In this regard, CLF argues that the other Program Administrators have not pursued cost-effective strategies as aggressively as the Compact has (CLF Brief at 44).

4. Analysis and Findings

a. Introduction

General Laws c. 164, § 134(b) provides that municipal aggregators "shall not be prohibited from proposing for certification an energy plan which is more specific, detailed, or comprehensive or which covers additional subject areas than any such state-wide conservation goals." As part of its 2019-2021 Three-Year Plan, the Compact proposes to

offer several enhancements to the Statewide Plan, pursuant to G.L. c. 164, § 134(b) (see, e.g., Exh. DPU-Compact 1-32 (Rev.) at 1).

The Compact's proposed enhancements to the Statewide Plan generally take the form of enhanced incentives at levels that are materially different from the Statewide Plan (see, e.g., Statewide Plan, Exh. 1, App. K – Cape Light Compact at 11; Exh. DPU-Compact 1-32 (Rev.) at 1; RR-DPU-Compact 2-2; Tr. 3, at 367-368). See, e.g., D.P.U. 15-166, Exh. 1, App. L. As the basis for its proposed enhancements, the Compact often cites the "unique" nature of its service area; however, as discussed below, it is often without adequate explanation or support for these claims (see, e.g., Program Administrators Brief at 64, 65, 72; Exh. DPU-Compact 1-32 (Rev.)). Additionally, the Compact has not obtained any outside funding for these Statewide Plan enhancements, instead the Compact proposes to collect all costs related to such enhancements from electric ratepayers through its EES (Exhs. Compact-2 (Joint Prefiled Testimony) at 11; DPU-Compact 1-12).

The Department must consider the proposed Statewide Plan enhancements in the context of the comprehensive statutory scheme for energy efficiency provided by the Green Communities Act.[55] As described in Section V above, above, the Department's review must

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[55] There is no question that the Compact's Three-Year Plan, though authorized by G.L. c. 164, § 134, is subject to the standards set forth in G.L. c. 25, §§ 19-22 for the development and evaluation of energy efficiency plans. Chapter 25, § 21 explicitly applies to certified energy plans by municipal aggregators under G.L. c. 164, § 134. Even without an express connection between the statutes, the Legislature is presumed to be aware of existing legislation when enacting subsequent legislation and, therefore, statutes are interpreted to form a consistent body of law. See Parris v. Sheriff of Suffolk County, 93 Mass. App. Ct. 864, 868 (2018) (citations omitted). In 2008, the Green Communities Act amended G.L. c. 25 to add

ensure, among other things, that the Compact's proposed enhancements to the Statewide Plan comply with all ratepayer protections in the Green Communities Act regarding cost effectiveness, funding, and bill impacts. G.L. c. 25, § 21(a), (b)(1), (b)(2)(iv)(A). Customers within the Compact's service area may opt out of participation in the Compact's municipal aggregation program, but they may not opt out of having the Compact as their energy efficiency Program Administrator. The Compact relies on funds from ratepayers to support its energy efficiency programs. In addition to the other requirements of the Green Communities Act, the Department must ensure that the Compact spends its energy efficiency funds in a reasonable and prudent manner, just as we do for the other Program Administrators, when implementing its energy efficiency plans.[56] Accordingly, our review of

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Sections 19 through 22, which created the Council and established a comprehensive—and extremely effective—statewide statutory scheme aimed at maximizing energy efficiency in the Commonwealth. See G.L. c. 25, § 19-22. As we have previously found, the purpose of the Green Communities Act was to "provide forthwith for renewable and alternative energy and energy efficiency in the [C]ommonwealth…." Paragon Holdings, LLC, D.P.U. 14-119, at 4 (2014), citing Green Communities Act at Preamble. We must construe statutes that address the same subject matter harmoniously, "so that effect is given to every provision in all of them," Green v. Wyman-Gordon Company, 422 Mass. 551, 554 (1996), and the statutes do not "undercut each other." Burbank Apartments Tenant Association v. Kargman, 474 Mass. 107, 124–125 (2016). The Preamble to the Electric Restructuring Act of 1997, St. 1997, c. 164 ("Restructuring Act"), which created G.L. c. 164, § 134, stated, in part, that one of "the primary elements of a more competitive electricity market will be . . . enhanced environmental protection goals." Restructuring Act at Preamble. Read together, these statutes evince the Legislature's intent to unify energy efficiency strategies and goals in the Commonwealth, which has resulted in Massachusetts leading the country in energy efficiency.

[56] The Compact does not collect performance incentives, which provide other Program Administrators with an incentive to maximize benefits while minimizing ratepayer costs. See, e.g., 2016-2018 Three-Year Plans Order, at 56.

the Compact's proposed enhancements to the Statewide Plan requires the Department to protect ratepayer interests.

The Department has reviewed the following enhanced incentives: (1) an uncapped, 100 percent incentive for qualified weatherization measures to electric customers (a) who are year-round renters and responsible for paying the electric bill, or (b) whose operations are managed by municipalities or other government entities; (2) cost-effective thermal measures to save oil, propane, and other unregulated fuels under the Compact's New Construction and Major Renovation program for C&I customers; (3) specialized incentives that cover up to 100 percent of cost-effective measures for C&I municipal customers; (4) a 95 percent incentive for qualifying small business tenants; (5) zero interest financing for small business customers; (6) a business energy audit and a core offering of deemed savings measures, some at 100 percent incentive coverage; (7) a 100 percent incentive for standard direct install measures for small business customers; and (8) a 100 percent incentive for all cost-effective measures for qualifying non-profits. After review, the Department finds that these specific enhanced incentive proposals are reasonable and consistent with past program design. Therefore, the Department approves the continuation of these enhanced incentives. Prior to its next three-year plan filing, the Compact should conduct an analysis of these enhanced incentives through the statewide evaluation protocols to determine if these enhanced incentives (including incentive levels) continue to be warranted.[57,58]

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[57] One aspect of the evaluation should consider a comparable customer group receiving similar service with a lower incentive level.

In the sections below, the Department addresses the Compact's two new proposed enhancements to the Statewide Plan: the enhanced storage incentive and the CVEO. After that analysis, to facilitate Department and stakeholder review, the Department outlines additional filing requirements for future proposed Statewide Plan enhancements under G.L. c. 164, § 134(b).

b. Enhanced Storage Incentive

The Compact is the only Program Administrator proposing to offer an upfront, 100 percent incentive to all customer classes for battery storage systems. In exchange, participating customers must agree to allow the Compact to dispatch the batteries for demand reduction purposes over the warrantied life of the battery, usually ten years (Exh. Compact-2 (Joint Prefiled Testimony) at 14).

The savings design structure of the Compact-specific enhanced storage incentive offering is consistent with the proposed statewide active demand reduction daily dispatch offering; the Compact intends to dispatch participating batteries on a daily basis during summer peak periods (Exh. Compact-2 (Joint Prefiled Testimony) at 16). Consistent with our findings in Section III.D.2 above, with respect to the proposed statewide daily dispatch offerings, we find that the Compact has not provided sufficient support for its proposal to deploy a daily dispatch offering at scale.

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[58] Conversely, the Department notes that certain previous incentive offerings have been adopted at the statewide level (Tr. 3, at 363; Exh. DPU-Comm 11-6). The Program Administrators shall conduct an evaluation through the statewide evaluation protocols to determine if these enhanced incentives should be more widely adopted.

Although the design structure is consistent, the Compact's proposed incentive and contractual arrangements are materially different from the statewide offering. The Department finds that the Compact has not provided sufficient support for the design of its enhanced incentive (i.e., an upfront, 100 percent incentive to all customer classes with a ten-year dispatch commitment).[59] As discussed in Section V above, in its review of energy efficiency plans, the Department must balance cost effectiveness with cost efficiency to ensure that realized benefits are maximized at the least cost to customers as mandated by the Green Communities Act. G.L. c. 25, § 21(b)(1), (2)(iv)(A). Although a 100 percent incentive may be cost effective,[60] the Compact must demonstrate that an incentive at this level is a prudent expenditure of ratepayer funds (i.e., the incentive level is at the least cost necessary to achieve the desired result).

The absolute length of the proposed dispatch commitment creates other problems that the Compact has not sufficiently addressed.[61] The Compact proposes to have full dispatch

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[59] The average customer incentive is expected to be $10,000 (Exh. Compact-5a (Rev.) at Tab ADRYr2).

[60] In 2020, when the Compact proposes to put the enhanced storage initiative into place, the Compact estimates that a residential customer's bill will increase by 3.26 percent and a C&I customer's bill will increase by approximately 7.79 percent (RR-DPU-Compact-2).

[61] The Program Administrators' initial filing included testimony supporting the need for a five-year commitment as part of a pay-for-performance offering to provide customers with revenue certainty to overcome the significant upfront investment participating customers must make in the battery storage system (see, e.g., Exh. NG-Electric-2, at 67-69). The Compact, by comparison, included no explanation in its initial filing of why a ten-year upfront commitment is appropriate.

rights over the warrantied lifetime of the battery (usually ten years) in exchange for an upfront, 100 percent incentive. In approving an energy efficiency plan, the Department generally expects the provision of incentives for (and active involvement with) approved measures to occur within the three-year term. The Department recognizes that active demand reduction programs may initially warrant longer-term commitments. The term of the commitment must balance the need to provide sufficient incentive to realize savings with the recognition that costs and customer needs change over time.[62] In Section III.D.2 above, above, the Department approved a five-year commitment as part of the statewide pay-for-performance model in light of the need to provide sufficient revenue certainty to overcome the significant upfront investment in storage. However, given the Compact's proposed upfront, 100 percent incentive, the Department finds no evidence that a ten-year term is either necessary or appropriate.

For each of the reasons discussed above, the Department does not approve the Compact's enhanced storage incentive proposal.[63] Should the Compact seek to implement an

[62] Customers may move or otherwise wish to discontinue participation over a contract term. Also, the boundaries of the Compact's service area could change over time, depending on the continued participation of member towns in its municipal aggregation program. Cape Light Compact, D.T.E. 00-47-C at 24 (2001).

[63] Once the Compact has addressed the distribution system coordination issues described in Section VIII.C, below, it may use a portion of the budget allocated to its proposed daily dispatch offerings to design a demonstration offering to test the daily dispatch of storage, provided no other Program Administrator has implemented such an offering (see Section III.B.2, above). The Compact shall comply with all other directives in Section III.B.2 above, regarding coordination with the Council and other Program Administrators regarding the design of any such demonstration offering. The

enhanced storage incentive design once a statewide, wide-scale daily dispatch offering is shown to be appropriate, it will be required to provide sufficient support for the design of its incentive proposal, including the incentive level, incentive commitment, and incentive model (i.e., upfront incentive versus performance based).

c. Cape and Vineyard Electrification Offering

The Department appreciates the Compact's efforts to respond to the recent amendments to the Green Communities Act through proposals like the CVEO. The proposed bundling of incentives to optimize energy usage merits close consideration and, in particular, we support the emphasis on equitably serving all customer classes.[64] However, given the short period over which the offering was developed,[65] the design of the CVEO did not benefit from a full, robust stakeholder process like most components of the Statewide Plan. While the Compact states that it consulted with several stakeholders regarding the design of the CVEO, including the Attorney General and DOER, we note that these parties have raised

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Compact shall present any such proposal to the Council and then to the Department for review and approval.

[64] The approach of equitably serving low-income customers could address barriers to entry for these customers. See Joint Petition of Electric Distribution Companies for Approval of Model SMART Provision, D.P.U. 17-140-A at 57-60 (2018).

[65] The Energy Act of 2018, which, among other things, allows Program Administrators to pursue energy storage and strategic electrification as part of their energy efficiency plans, became law on August 9, 2018. The Compact states that, while it considered some of the measures included in the proposed CVEO earlier in the planning process, the CVEO as a complete offering was not publicly presented until September 14, 2018 (Tr. 3, at 422-423). The Compact filed its Three-Year Plan with the Department on October 31, 2018.

material concerns about different aspects of the proposal (see Attorney General Brief at 16-18; Attorney General Reply Brief at 3-4; DOER Reply Brief at 9). The Attorney General and DOER only support the concept of the CVEO, not its proposed structure (see Attorney General Brief at 16-18; Attorney General Reply Brief at 3-4; DOER Reply Brief at 9). Further, contrary to the Compact's assertion, the Council never explicitly discussed the CVEO (see Tr. 3, at 410-411).

In addition, the Department strongly shares DOER's concern that, given the availability of other solar PV incentives and financing programs, it is not appropriate for the Compact to finance the solar PV component of the CVEO through its Three-Year Plan (see DOER Reply Brief at 9). In this regard, the Department must consider how any proposed solar PV incentives comply with the statutory directive to transition to a stable solar marketplace at a reasonable cost to ratepayers. See An Act Relative to Solar Energy, St. 2016, c. 75.

Based on the above, the Department does not approve the proposed CVEO and associated budget at this time. Instead, the Department finds that it is appropriate for the Compact to refine its proposed CVEO offering prior to Department review. Once stakeholders have thoroughly vetted the offering and the Council has approved it, the Compact may submit a revised CVEO proposal and budget to the Department for our review. The Department expects that all issues identified by the Department (and raised by the Attorney General and DOER) in this proceeding will be addressed in a future CVEO proposal.

d. Future Statewide Plan Enhancements

The Green Communities Act requires the Department to issue a decision on the three-year plans within 90 days of the submission of the Statewide Plan by the Program Administrators. G.L. c. 25, § 21(d)(2). The Department has historically evaluated the Compact's proposed Statewide Plan enhancements along with any other Program Administrator-specific programming during its review of the Statewide Plan. See, e.g., 2016-2018 Three-Year Plans Order, at 6-7.

As discussed above, the Compact has proposed to (1) continue to offer eight existing Statewide Plan enhancements and (2) implement two new Statewide Plan enhancements, each of which departs materially from the Statewide Plan offerings. We note that the Statewide Plan enhancements offered by the Compact have generally taken the form of increased incentives, at times as high as 100 percent of the proposed cost (Statewide Plan, Exh. 1, App. K – Cape Light Compact). See D.P.U. 15-166, Exh. 1, App. L.

As reflected in the number of information requests served specifically on the Compact and the need for a separate day of evidentiary hearings devoted exclusively to the Compact's proposed enhancements, the Department had to expend considerable resources to gather a complete understanding of the Compact's Statewide Plan enhancement proposals. And, as our analysis above reveals, the two new proposed Statewide Plan enhancements raised a number of complex issues for our consideration. To facilitate an efficient review of future proposals, the Compact shall include a supplement in its initial three-year plan filing that identifies all proposed Statewide Plan enhancements (both new and existing). The filing must

include detailed testimony and exhibits (1) describing each proposed Statewide Plan enhancement, (2) explaining and supporting why each proposed enhancement is necessary and consistent with all requirements of the Green Communities Act, (3) describing Council and stakeholder review of each proposal, and (4) clearly identifying the incremental budget and projected savings, broken down by rate class and category, relative to the Statewide Plan.

C. Active Demand Reduction Coordination

1. Introduction

The Department has recognized that active demand reduction offerings have the potential to impact the local distribution system in a manner that is different from other energy efficiency programs. Cape Light Compact, D.P.U. 17-84, at 21 (2018). Accordingly, because the Compact is not an electric distribution company, it is required to coordinate with NSTAR Electric to ensure that its proposed active demand reduction offerings will not adversely impact reliability. See D.P.U. 17-84, at 21.

The Compact states that it has met with NSTAR Electric twice (i.e., on October 24, 2018, and on November 15, 2018) to discuss the implementation and coordination of the Compact's proposed energy storage offering for the purposes of minimizing any potential impacts on the operation and reliability of the distribution system (Exhs. Compact-2 (Joint Prefiled Testimony) at 13; DPU-Compact 1-19; DPU-Compact 3-3; Tr. 3, at 425). The Compact states that the topics of discussion included the following: (1) battery installation locations; (2) coordination on battery installation sites; (3) dispatch of battery systems; (4) identification of constrained circuits; and (5) disposition of the batteries

after the contract term (Exhs. DPU-Compact 1-19; DPU-Compact 3-3). The Department addresses the appropriateness of the Compact's coordination with NSTAR Electric below.

2. Positions of the Parties

a. Cape Light Compact

The Compact asserts that it has engaged in ongoing communications with NSTAR Electric regarding the dispatch of battery storage (Program Administrators Brief at 76). As a result of these communications, the Compact asserts that NSTAR Electric recently presented it with a draft memorandum of understanding ("MOU") outlining a proposal for the coordinated dispatch of the Compact's battery storage (Program Administrators Brief at 76). The Compact maintains that it is currently reviewing NSTAR Electric's proposal and expects that an acceptable arrangement can be reached prior to the Compact's planned implementation of its battery storage proposal in 2020 (Program Administrators Brief at 76).

b. NSTAR Electric

Although NSTAR Electric maintains that it supports the majority of the Compact's proposed Three-Year Plan, it expresses reservations about the Compact's battery storage proposal (NSTAR Electric Reply Brief at 8). NSTAR Electric argues that because the Compact is not a public utility, it has no obligation to provide safe and reliable electric distribution service like NSTAR Electric does (NSTAR Electric Reply Brief at 3). NSTAR Electric argues that, as the electric distribution service provider in the Compact's service area, it must ensure that the Compact's deployment of any active demand

management offerings does not affect electric distribution safety and reliability (NSTAR Electric Reply Brief at 4). NSTAR Electric argues that the Compact's proposal has the potential to adversely impact distribution safety and reliability absent sufficient control by NSTAR Electric over the storage assets (NSTAR Electric Reply Brief at 8).

More specifically, NSTAR Electric maintains that it is concerned both by the number and location of batteries the Compact is proposing to dispatch (NSTAR Electric Reply Brief at 4). NSTAR Electric contends that it is necessary to study the interconnection and operation of the 1,000 batteries in total to understand the impact on the local distribution system if the batteries are dispatched in unison (NSTAR Electric Reply Brief at 4). NSTAR Electric argues that, absent such study, the Compact can offer no evidence to support its characterization of the load reduction as "relatively small" (NSTAR Electric Reply Brief at 4, citing Exh. DPU-Compact 3-3). NSTAR Electric further argues that, without such study, there may be significant operational conflicts between NSTAR Electric's reliability-driven storage investments and the Compact's proposed behind-the-meter storage investments (NSTAR Electric Reply Brief at 5).

NSTAR Electric maintains that, should the Department approve the Compact's proposed storage offering, such approval must be conditioned on NSTAR Electric having the sole authority to dispatch the units and other necessary conditions (NSTAR Electric Reply Brief at 6). NSTAR Electric asserts that its negotiations with the Compact (as reflected in the draft MOU) are intended to ensure that it has full control over the dispatch of the Compact's proposed storage assets (NSTAR Electric Reply Brief at 5). In addition,

NSTAR Electric contends that the negotiations are designed to ensure that it will receive appropriate information on (1) the location of all dispatchable assets for its review and approval, (2) the potential to aggregate multiple assets for coordinated dispatch, and (3) the customers participating in any such aggregation of assets (NSTAR Electric Reply Brief at 5). NSTAR Electric maintains that the MOU addresses other important issues, including the following: (1) submission of applications for interconnection on an aggregated basis for review; (2) payment by the Compact of reasonable incremental costs incurred by NSTAR Electric; (3) restrictions on the ability of assets to participate in other programs; and (4) duration of NSTAR Electric's right to control the dispatch of the assets (NSTAR Electric Reply Brief at 5). NSTAR Electric argues that this level of involvement is necessary to mitigate any potential adverse impacts associated with the operation of such assets on the distribution system (NSTAR Electric Reply Brief at 6).

Finally, in the event the Department does not approve the Compact's storage proposal, NSTAR Electric recommends the Department investigate alternative models to offer storage opportunities to the Compact's customers (NSTAR Electric Reply Brief at 7). Specifically, NSTAR Electric recommends the Department allow it to partner with storage developers to implement behind-the-meter storage for the Compact's customers (NSTAR Electric Reply Brief at 7). NSTAR Electric argues that this alternative model would allow it to operate storage assets across three states through a centrally controlled dispatch platform to help lower ISO-NE system peaks (NSTAR Electric Reply Brief at 7-8). Further, NSTAR Electric maintains that this alternative model would obviate the need for the

Compact to procure a duplicative dispatch software platform and capabilities (NSTAR Electric Reply Brief at 8).

3. Analysis and Findings

As an initial matter, on January 14, 2019, the Compact filed a motion to strike NSTAR Electric's reply brief ("Motion to Strike"). The Compact argues that the majority of the reply brief consists of unsworn testimony and alleged facts regarding the potential impact of the Compact's proposed active demand reduction offerings on the reliability of the distribution system that are not supported by the record in this proceeding[66] (Motion to Strike at 1, 6-8). Therefore, the Compact maintains that NSTAR Electric's reply brief constitutes extra-record evidence that should be disregarded in its entirety (Motion to Strike at 10). NSTAR Electric did not file a response to the Motion to Strike.

Department regulations provide that no person may present additional evidence after having rested, except upon motion and a showing of good cause. 220 CMR 1.11(8). Further, the Department has found that it is axiomatic that a party's post-hearing brief may not serve the purpose of presenting facts or other evidence that is not in the record. Fitchburg Gas and Electric Light Company, D.P.U. 15-80/D.P.U. 15-81, at 12 (2016), citing Boston Gas Company, D.P.U. 88-67, at 7 (Phase II) (1989). After review, the Department finds that NSTAR Electric's reply brief presents legal and policy-based arguments that do not rise to the level of extra-record evidence. Accordingly, the Department denies the Compact's

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66 The Compact identified the specific parts of NSTAR Electric's reply brief with which it takes issue, including portions of the Introduction at 1-2, Section II at 4-6, and Section III at 7-8 (Motion to Strike, App A).

Motion to Strike. The Department will accord appropriate weight to NSTAR Electric's reply brief to the extent it offers relevant legal and policy-based argument.[67]

The Department has found that, because the Compact is an energy efficiency Program Administrator that is not an electric distribution company, it must coordinate with NSTAR Electric to ensure that any proposed active demand reduction offerings will not adversely impact the reliability of the local distribution system. D.P.U. 17-84, at 21. Consistent with this directive, the Compact has engaged in discussions with NSTAR Electric regarding its proposed active demand reduction offerings. However, the Compact and NSTAR Electric have not yet finalized any agreement in this regard (see Tr. 3, at 425; Program Administrators Brief at 76).

The Department finds that it is premature to consider the Compact's proposed active demand reduction offerings (including the statewide offerings and any Compact-specific enhancements) until a final agreement with NSTAR Electric is in place. Absent such an agreement, the Department is unable to determine whether the Compact's proposed offerings will undermine NSTAR Electric's obligation to provide safe and reliable service to its distribution customers. See 220 CMR 11.01; Investigation into the Interconnection of Distributed Generation, D.P.U. 11-75-E at 34 (2013); Report to the Legislature Re: Maintenance and Repair Standards for Distribution Systems of Investor-Owned Gas and Electric Distribution Companies, D.P.U. 08-78, at 4 (2009); Incentive Regulation,

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[67] The Department notes, however, that we did not need to rely on any of the purported extra-record facts challenged by the Compact in reaching our findings below.

D.P.U. 94-158, at 3 (1995). Accordingly, the Department does not approve any active demand reduction offerings for the Compact at this time.[68]

On or before September 30, 2019, the Compact shall file a report with the Department outlining the status of its efforts to reach a final agreement with NSTAR Electric regarding (1) all aspects of the coordination necessary to implement active demand reduction offerings in the Compact's service area and (2) how any costs related to such coordination will be addressed. A copy of any signed agreement should be included with this report. The Department will review the agreement to determine if it adequately addresses distribution reliability concerns and whether the proposed treatment of any related costs is reasonable.

If the Compact and NSTAR Electric cannot reach a signed agreement addressing all issues by September 30, 2019, the Compact shall notify the Department and the Council. The Department then requests that the Council, within 60 days of any such notification, provide the Department with its recommendation regarding alternative models to offer active demand reduction opportunities in the Compact's service area that do not implicate concerns about the reliability of the distribution system.

We are cognizant that the time required for the Compact and NSTAR Electric to reach agreement regarding system reliability could affect the timeline for Compact customer participation in the statewide active demand reduction offerings. However, the Compact

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[68] This directive includes, but is not limited to, any of the offerings identified in Exhibit Compact-5a (Rev.). Until a final agreement with NSTAR Electric is reached (or until otherwise ordered by the Department), the Compact shall not offer any active demand reduction program, initiative, offering, or pilot that requires dispatch or otherwise could adversely impact distribution customers.

testified that it did not intend to implement the majority of its active demand reduction offerings until 2020 (see Tr. 3, at 378; Exh. Compact-5a (Rev.); RR-DPU-Compact-2; Program Administrators Brief at 76). Therefore, the Department fully expects that appropriate active demand reduction opportunities will be available to the Compact's customers with a minimum of delay.

D. Cost Allocation

1. Introduction

The Compact has two primary core functions: (1) administering its approved energy efficiency programs; and (2) administering its municipal aggregation power supply program (Tr. 3, at 329). In addition, the Compact states that it undertakes various advocacy activities on behalf of its municipal aggregation program participants and its energy efficiency customers[69] (Tr. 3, at 330, 336). Energy efficiency-related expenditures are funded through an EES that is collected from all electric customers in the Compact's service area (Tr. 3, at 329). Municipal aggregation-related expenses are funded through an operational adder collected from municipal aggregation program participants (Tr. 3, at 329-330).

The Compact maintains that it implements a series of internal controls to ensure that only energy efficiency-related costs (and no municipal aggregation-related costs) are recovered through the EES (Exh. DPU-Compact 1-1; Program Administrators Brief

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[69] For example, the Compact identifies the following two activities on its website (https://www.capelightcompact.org/advocacy/) under consumer advocacy: (1) the Compact's participation in the Department's various grid modernization proceedings (e.g., D.P.U. 12-76, D.P.U. 15-121); and (2) the Compact's participation in NSTAR Electric's rate case (D.P.U. 17-05).

at 66 n.32). These internal controls include the following: (1) invoice review; (2) maintenance of separate bank accounts for the municipal aggregation and energy efficiency programs; and (3) use of an outside auditor to review its financial accounts and prepare annual audits (Exh. DPU-Compact 1-1; Program Administrators Brief at 66 n.32).

The Compact states that it allocates indirect or shared expenses (e.g., treasury services, payroll services, insurance) between its municipal aggregation program and energy efficiency program by the relative budget of each program or using alternate allocation methods set by the Compact's Governing Board[70] (Exh. DPU-Compact 3-1). The Compact states that these allocations are reviewed annually by the Governing Board and that any changes to the allocation factors would be reflected in the Compact's EES filings and its annual municipal aggregation operations budget (Tr. 3, at 334-335).

2. Analysis and Findings

The Compact, like other Program Administrators, must carefully track and allocate all expenditures to ensure that only energy efficiency-related costs are recovered through its EES. Direct costs must be tracked and charged to the appropriate program budget. Indirect or shared costs must be allocated between the municipal aggregation and energy efficiency programs based on appropriate allocation factors.

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[70] For example, the Compact states that costs for its insurance, office space, and office phones are allocated based on a policy decision from the Governing Board. Staff salaries and benefits/pensions are allocated based on the hours spent on each program (Exh. DPU-Compact 3-1).

The Compact identified the categories of costs that are shared between its energy efficiency and municipal aggregation programs and the allocation methods it proposes to use to assign these shared costs to each (Exh. DPU-Compact 3-1). After review, subject to our findings regarding the allocation of consumer advocacy costs below, the Department finds the methods identified by the Compact to allocate shared costs are reasonable and we approve these methods for use in the upcoming Three-Year Plan term.

To increase transparency and facilitate review of future EES and three-year plan filings, the Department directs the Compact to identify the allocation methods and resulting allocation factors used to assign shared costs to its energy efficiency and municipal aggregation programs. In each filing, the Compact also shall include a separate data table showing these allocations. The Department directs the Compact to include in its Annual Reports and Term Report a comparison of planned allocations versus actual spent dollars and an explanation of any significant variance (i.e., a variance of greater than ten percent). See Energy Efficiency Three-Year Term Report Template, D.P.U. 11-120-B (2016).

Finally, one area of shared costs that is of particular interest to the Department is the allocation of consumer advocacy costs. The Compact maintains that all non-energy efficiency-related consumer advocacy costs are funded from its municipal aggregation operations budget (Tr. 3, at 336). In this regard, the Compact's municipal aggregation plan includes the following component:

> Ongoing consumer advocacy and representation at the state level through participation in [Department] proceedings, the legislative development process, the stakeholder community and before other regulatory and governmental bodies.

Cape Light Compact, D.P.U. 14-69, Municipal Aggregation Plan at 12 (April 3, 2014). The Department anticipates that the Compact will classify the large majority of consumer advocacy costs as non-energy efficiency related to be recovered through its municipal aggregation budget. Where the Compact classifies any consumer advocacy costs as energy efficiency related, it must be prepared to demonstrate, at the time final cost recovery is sought, that such activities have a direct energy efficiency-related benefit. Failure to make such showing will result in disallowance of such costs.[71] To facilitate this review, in each Annual Report and Term Report, the Compact shall identify any consumer advocacy costs (including related legal and consulting costs) that were charged to its energy efficiency budget and provide an explanation supporting the direct energy efficiency-related benefit of such activities.

E. Provision of Energy Efficiency Services to Mutual Customers

1. Introduction

During the investigation of the Compact's 2016-2018 three-year plan, National Grid (gas) raised issues regarding the Compact's provision of energy efficiency to gas customers in the National Grid (gas) service territory ("mutual customers"). 2016-2018 Three-Year Plans Order, at 116-117. The Compact and National Grid (gas) filed an interim agreement dated December 10, 2015, regarding the administration of energy efficiency services to mutual customers. Cape Light Compact, D.P.U. 15-166, Agreement (December 21, 2015). The Department directed the Compact and National Grid (gas) to file a final agreement

[71] Disallowed costs shall not be recovered through the EES.

regarding the provision of gas energy efficiency services to their mutual customers for Department review. 2016-2018 Three-Year Plans Order, at 119.

A final agreement between the Compact and National Grid (gas) was not reached and, on October 5, 2016, National Grid (gas) filed a petition with the Department requesting approval to provide energy efficiency services to its natural gas heating customers on Cape Cod in accordance with its approved 2016-2018 three-year plan. This matter was docketed as D.P.U. 16-169 and it is currently pending before the Department. In its proposed Three-Year Plan, the Compact proposes to continue to provide certain energy efficiency services to mutual customers (Exh. DPU-Compact 1-31).

2. Positions of the Parties

a. Cape Light Compact

The Compact argues that it administers its Three-Year Plan to all electric customers in its service area in a fuel-neutral manner (Compact Brief at 1). According to the Compact, the practice of serving customers in this manner was established in 2001 (Compact Brief at 2). The Compact contends that it is not administering gas measures to customers of National Grid (gas), rather it is appropriately installing certain electric weatherization measures for mutual customers, including air sealing and insulation, that produce both electric and gas savings (Compact Brief at 2).

In response to the argument of National Grid (gas) that it should follow the statewide coordination protocol, the Compact argues that this protocol is neither written nor binding as it was not required by Department directive (Compact Brief at 2). According to the

Compact, even if the Department were to adopt the statewide coordination protocol, the Compact's authority to implement Statewide Plan enhancements under G.L. c. 164, § 134(b) would allow it to provide energy efficiency services to mutual customers (Compact Brief at 3).

b. National Grid (gas)

National Grid (gas) argues that the Compact continues to provide home energy audits and weatherization measures to customers who heat their homes with gas, which is inconsistent with the statewide coordination protocol agreed to by all other Program Administrators (National Grid (gas) Brief at 1, citing Exh. DPU-Comm 11-5). National Grid (gas) contends that Program Administrators coordinate to provide energy efficiency services based on the customer's primary heating fuel, so gas program administrators serve customers that heat with natural gas, and electric program administrators serve customers that heat with fuels other than natural gas (National Grid (gas) Brief at 1, citing Exh. DPU-Comm 11-5). According to National Grid (gas), this statewide coordination protocol is appropriate because (1) it aligns the costs with the customers receiving the benefits, (2) it is fair and unbiased for all Program Administrators, and (3) it allows Program Administrators to plan and implement their three-year plans without confusion (National Grid (gas) Reply Brief at 2). National Grid (gas) also argues that use of the statewide coordination protocol would prevent the existing cross-subsidization of gas energy efficiency measures by the Compact's customers (National Grid (gas) Reply Brief at 2). Accordingly, National Grid (gas) requests that the Department direct the Compact to follow the statewide coordination protocol when

administering its 2019-2021 Three-Year Plan (National Grid (gas) Brief at 2; National Grid (gas) Reply Brief at 4).

3. Analysis and Findings

The Department has previously recognized the importance of consistency in the delivery of energy efficiency services in areas where electric and gas Program Administrators have overlapping service territories. 2016-2018 Three-Year Plans Order, at 118. We appreciate that the Program Administrators have established and follow a statewide coordination protocol (Exh. DPU-Comm 11-5). Further, the Department commends the Program Administrators' recent efforts in aligning customer incentive levels and removing caps for weatherization measures offered statewide so that all customers can benefit from the same experience (Exh. DPU-Comm 11-6).

The issues raised by National Grid (gas) in this proceeding regarding the provision of energy efficiency services to mutual customers under its and the Compact's respective Three-Year Plans are complex, and the Department finds that they involve certain issues of law and fact common to those raised by National Grid (gas) in D.P.U. 16-169. Accordingly, the Department will not make any findings regarding the provision of energy efficiency services to mutual customers in this Order. Instead, the Department will address these issues comprehensively as part of its subsequent Order in D.P.U. 16-169.

F. Conclusion

The Department has reviewed the Compact's proposed Three-Year Plan, including its proposed enhancement to the Statewide Plan. After review, the Department approves the

continuation of the following enhanced incentives: (1) an uncapped, 100 percent incentive for qualified weatherization measures to electric customers (a) who are year-round renters and responsible for paying the electric bill, or (b) whose operations are managed by municipalities or other government entities; (2) cost-effective thermal measures to save oil, propane, and other unregulated fuels under the Compact's New Construction and Major Renovation program for C&I customers; (3) specialized incentives that cover up to 100 percent of cost-effective measures for C&I municipal customers; (4) a 95 percent incentive for qualifying small business tenants; (5) zero interest financing for small business customers; (6) a business energy audit and a core offering of deemed savings measures, some at 100 percent incentive coverage; (7) a 100 percent incentive for standard direct install measures for small business customers; and (8) a 100 percent incentive for all cost-effective measures for qualifying non-profits.

The Department appreciates the Compact's efforts to respond to the recent amendments to the Green Communities Act through proposals like the CVEO, however, the proposal did not benefit from sufficient stakeholder input prior to filing. The Department does not approve the Compact's proposed enhanced storage incentive and the bundled enhanced incentive, the CVEO, at this time.[72] The Compact may, however, seek Department

[72] The Compact is, however, permitted to offer cold-climate air-source heat pumps consistent with the structure and incentives of the Statewide Plan. The Compact is not permitted to offer battery storage or solar PV to any customers until the Department has determined that the Compact has resolved each of the issues identified herein.

approval for a revised offering after it has received stakeholder feedback and Council approval.

Because there are important issues regarding distribution system safety and reliability that remain to be resolved, the Compact may not offer any active demand reduction program, initiative, offering, or pilot that requires dispatch or could adversely impact distribution customers. In compliance with the directives herein, the Compact shall work with NSTAR Electric and the Council, as necessary, to reach an agreement that allows the Compact's customers access to active demand reduction offerings.

To ensure that all planned data reflect the directives above, within 21 days of the date of this Order, the Compact shall submit updated data tables as well as an updated BCR model. Finally, the Department notes that in its most recent EERF filing, the Compact filed a motion seeking clarification regarding whether certain budgets associated with its Three-Year Plan are within the scope of the allowed EES granted by the Department in the preliminary Order issued December 26, 2018 in its EERF filing. Cape Light Compact JPE, D.P.U. 18-128, Motion of the Cape Light Compact JPE for Clarification (January 7, 2019), citing Order on Petition for Approval of the Compact's 2018 EES, for Effect January 1, 2019 (2018). We take this opportunity to clarify that we consider each of the items listed in Appendix K to be enhancements to the Statewide Plan, consistent with the Compact's previous filings. Within 21 days of the date of this Order, the Compact shall file

an updated EES for effect April 1, 2019, that is consistent with the findings in this Order.[73] The updated EES should include any revisions submitted as part of the December 20, 2018 filing of revised tables.

IX. OTHER ISSUES

A. Strategic Electrification, and Renewable and Clean Energy Technologies

1. Introduction

As discussed above, the Energy Act of 2018 amended the Green Communities Act to expand the scope of energy efficiency programs that are eligible for inclusion in the Three-Year Plans. Energy Act of 2018, at § 2. In pursuit of the achievement of all cost-effective energy efficiency and demand reduction resources, the Program Administrators may now include programs that (1) provide energy and demand savings through strategic electrification that result in cost-effective reductions in GHG emissions and minimize ratepayer costs, and (2) result in customers switching to renewable energy sources or other clean energy technologies. G.L. c. 25, § 21(b)(2)(iv)(A), (J).

2. Program Administrators Proposal

The Program Administrators propose to implement new approaches to promote strategic electrification and to assist customers seeking to switch to renewable energy and other clean energy technologies (Statewide Plan, Exh. 1, at 10). The Program

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[73] The updated EES should reflect, among other things, the removal of any additional incentives proposed for cold-climate air-source heat pumps as part of the CVEO, all costs associated with solar PV, and all costs associated with all active demand reduction offerings. To the extent that the Compact subsequently receives Department approval for any of these programs, it may file a revised EES with the Department at that time.

Administrators state that these strategies are designed to further their overall energy optimization approach, which includes providing customers with enhanced education to help them reduce their total energy use based on individual needs and goals (Statewide Plan, Exh. 1, at 18; Exhs. DPU-Comm 2-6; DPU-Comm 2-7).

Specifically, the Program Administrators propose to offer customer incentives for strategic electrification measures and to support switching to clean energy technologies (Exh. DPU-Comm 2-5). The Program Administrators propose to offer the same incentive levels regardless of the customer's original fuel source (Exh. DPU-Comm 5-6). In this regard, customer incentives for displacing oil or propane use or switching to renewable energy and clean energy technologies will be based on the customer's total energy reduction (in MMBtu) based on the difference between the energy saved by displacing one fuel source and the increase in energy used by the new fuel source (Exh. DPU-Comm 1-7).

3. Positions of the Parties

a. Program Administrators

The Program Administrators argue that their proposal to offer incentives for strategic electrification and to support switching to renewable energy and clean energy technologies are appropriately designed to motivate customers to reduce overall energy consumption by supporting fuel-neutral heating options (Program Administrators Brief at 26). While the Program Administrators acknowledge that they have previously offered incentives for heat pumps and similar measures, they argue that those prior programs were designed to encourage the adoption of higher-efficiency heating systems and not to reduce overall energy

consumption like the current proposals (Program Administrators Brief at 26). The Program Administrators argue that the Department should approve their proposed offerings because they are cost effective, intended to result in overall energy reductions, and will be marketed to customers who are expected to experience overall energy and bill savings (Program Administrators Brief at 27).

b. Department of Energy Resources

DOER maintains that the Three-Year Plans represent a critical and positive shift in energy efficiency program delivery through the adoption of new approaches, including strategic electrification, fuel-switching to clean energy sources, and the broadening of electric programs to focus on overall energy reduction (DOER Brief at 13). DOER argues that the fuel switching approach proposed by the Program Administrators aligns with the Commonwealth's long-term energy policy goals and will provide customers with an expanded set of heating and hot water solutions, including cold-climate air-source heat pumps and wood pellet heating conversions, where appropriate (DOER Brief at 15-16). In addition, DOER maintains that the Program Administrators' proposed approach will provide enhanced information to customers regarding expected costs, energy savings, and the GHG impacts of fuel conversions (DOER Brief at 15). Finally, DOER asserts that the Program Administrators' strategic electrification proposals will allow Massachusetts to leverage its investments in a clean electric grid, lowering both emissions and costs (DOER Brief at 16).

c. Acadia Center

Acadia supports the Program Administrators' proposed strategic electrification efforts (Acadia Brief at 15; Acadia Reply Brief at 4). Acadia argues that the Department should approve the proposal because it appropriately features cold-climate air-source heat pumps, provides strategic electrification, and allows only electric Program Administrators to count the incremental MMBtu savings from switching or displacing oil and propane (Acadia Brief at 14-15, citing Exh. DPU-Comm-1, at 59; Statewide Plan, Exh. 1, App. F at 7).

d. Conservation Law Foundation

CLF contends the Program Administrators took too passive an approach to renewable and other clean energy technologies in the Three-Year Plans, despite the recent changes to the Green Communities Act that allow the Three-Year Plans to include programs to help customers switch to renewable and other clean energy technologies (CLF Brief at 8-9, citing G.L. c. 25, § 21(b)(2)(iv)(A), (J)). In addition, CLF argues that the Program Administrators have failed to identify a robust list of such technologies in order to establish a baseline of what is available to pursue in energy efficiency plans (CLF Brief at 8-10, citing G.L. c. 25, § 21(b)(2)(iv)(J)).

CLF contends that the Department should require the Program Administrators to focus their energy optimization efforts on the prioritization of strategic electrification and fuel switching to renewable and other clean energy technologies, rather than their allegedly "fuel-neutral" approach (CLF Brief at 8-12). In this vein, CLF argues that the Program Administrators should make renewable and clean energy options maximally valuable to

customers rather than continuing to push gas conversions with supposedly fuel-neutral marketing that encourages fuel switching to gas (CLF Brief at 11-12). Finally, CLF maintains that the Program Administrators should ensure that marketing and education about incentives available for high-efficiency gas equipment is given less weight than marketing and education regarding the costs and benefits of cold-climate air-source heat pumps, solar plus storage, and other renewable and clean energy technologies (CLF Brief at 12).

e. PowerOptions

PowerOptions asserts that the Three-Year Plans are appropriately designed to instill a culture of energy efficiency that transcends fuel type (PowerOptions Brief at 10). PowerOptions argues that a holistic approach to reducing overall energy use, rather than a focus on reducing only gas or electricity use, will allow the Program Administrators to better adapt the energy efficiency programs to meet customer needs (PowerOptions Brief at 10). Finally, PowerOptions maintains that it is supportive of air-source heat pumps as the primary measure proposed by the Program Administrators, and it argues that strategic electrification is necessary to achieve GHG reduction goals (PowerOptions Brief at 10).

4. Analysis and Findings

Consistent with recent amendments to the Green Communities Act, the Program Administrators propose to incorporate new approaches in their Three-Year Plans that provide education and support for strategic electrification and for customers seeking to switch to renewable energy and clean energy technologies, such as wood pellet heating and other renewable thermal heating and water heating technologies (Statewide Plan, Exh. 1, at 18, 59,

69, 110-111, 129; Exhs. DPU-Comm 1-7; DPU-Comm 2-5; DPU-Comm 2-6; DPU-Comm 5-8; NEEC-Comm 1-5; NEEC-Comm 2-2). G.L. c. 25, § 21(b)(2)(iv)(A), (J). These proposed strategies received wide support from the parties, including DOER (see, e.g., DOER Brief at 13-16). After review, the Department finds that the Program Administrators have demonstrated that these proposed strategies are designed to provide cost-effective GHG emission reductions, while minimizing costs to ratepayers, and are an appropriate part of the Program Administrators' overall plan to provide all cost-effective energy efficiency and demand reductions under the Green Communities Act. G.L. c. 25, § 21(b)(2)(iv)(A), (J), (d)(2).

CLF argues that the Program Administrators should be required to prioritize customer education and marketing efforts for strategic electrification and fuel switching to renewable and other clean energy technologies, over a fuel neutral approach that still encourages fuel switching to gas (CLF Brief at 11). In response, the Program Administrators maintain that offering incentives that motivate customers to reduce overall energy consumption through strategic electrification or switch to renewable energy and clean energy sources, is part of their overall energy optimization approach, which they claim is appropriately focused on reducing customer energy use and demand (Program Administrators Brief at 26; Tr. 1, at 118).

Strategic electrification and programs that encourage a switch to renewable energy and clean energy technologies are some of the new tools that the Program Administrators can now include in their Three-Year Plans in an effort to reduce GHG emissions. G.L. c. 25,

§ 21(b)(2)(iv)(A), (J). The availability of these new tools is intended to enhance, but not replace, the Program Administrators' traditional focus since 2010 on the pursuit of all available cost-effective energy efficiency and demand reduction resources. With the Program Administrators' energy optimization approach, the goal going into a home is to provide customer education on every available option, including heat pumps and renewables, rather than pursuing only more efficient versions of what the customer currently has (e.g., a more efficient oil heating system to replace a standard oil heating system) (Tr. 1, at 128-129). While the Department encourages the Program Administrators to provide appropriate customer education and marketing for strategic electrification and renewable/clean energy[74] switching initiatives, such marketing and customer education needs to be a balanced part of the Program Administrators' overall energy optimization approach. As the Department finds above, this approach is appropriately designed to deliver cost-effective savings with appropriate consideration of the long- and short-term rate and bill impacts that these strategies bring.

[74] The Department notes that renewable electric generation (e.g., solar PV, biomass, and wind) has dedicated ratepayer and taxpayer funding sources to support the installation thereof. See, e.g., G.L. c. 25, § 20. For example, the SMART program provides incentives to encourage certain types of renewable electric generation and energy storage installations. An Act Relative to Solar Energy, St. 2016, c. 75 (establishing new SMART program framework).

B. Converting Fuel Savings to MMBtu

1. Program Administrators Proposal

The Program Administrators propose to provide key data points to measure the success of these Three-Year Plans and also to provide metrics to compare with prior three-year plans, in order to facilitate stakeholder review of the impacts of the various programs (Statewide Plan, Exh. 1, at 15-16). To accomplish this, the Program Administrators propose to provide net lifetime all fuel savings measured in MMBtu, excluding MMBtus associated with active demand reduction efforts (Statewide Plan, Exh. 1, at 16). The Program Administrators maintain that such calculations will illustrate the net effect of all fuel savings efforts (i.e., electric, natural gas, oil, and propane), as well as the impact of fuel conversions that result in overall lower energy use (Statewide Plan, Exh. 1, at 16).

2. Analysis and Findings

In an effort to provide comparable data points among different fuel types, the Program Administrators propose to convert all fuel savings to MMBtu (Statewide Plan, Exh. 1, at 15-16). The Department is concerned, however, about the method used by the Program Administrators for such conversions. In particular, the Program Administrators use a simplified method of (1) converting electricity used on-site but generated offsite and (2) converting electricity generated at combined heat and power plants (Exh. DPU-Comm 4-1). Electricity used on-site, but generated offsite, contains embedded energy with heat values from a mix of fuels that generate the electricity; however, the

Program Administrators failed to consider this embedded energy during the unit conversion (Exh. DPU-Comm 4-1). Further, the Program Administrators employed the concept of marginal GHG emission rates when calculating the heat value of combined heat and power plants (Exh. DPU-Comm 4-1). The Department has concerns about mixing heat values with GHG emission rates when converting energy savings for combined heat and power plants (Exh. DPU-Comm 4-1).

The Department appreciates the Program Administrators' efforts in attempting to convert all fuel savings into a common unit of measurement. However, in light of the issues discussed above, we direct the Program Administrators to further study and propose a more refined method to account for the conversion of electric savings to MMBtu savings. The Program Administrators shall report the progress or results of this study as part of their 2019 Annual Reports.

C. Merrimack Valley

1. Introduction

As part of its October 30, 2018, resolution, the Council stated that it expects Columbia Gas to dedicate targeted efforts to support the installation of high-efficiency equipment and weatherization measures in homes and businesses affected by the September 2018 incident in the Merrimack Valley (Statewide Plan, Exh. 1, App. G at 3).

2. Columbia Gas Proposal

Columbia Gas states that, in setting its proposed savings goals in its Three-Year Plan, it took into account planned and targeted efforts to support the installation of high-efficiency

equipment and weatherization measures in the Merrimack Valley (Exh. CMA-2, at 68). Columbia Gas states that it will encourage increased participation in its energy efficiency programs in Lawrence, Andover, and North Andover (i.e., the affected municipalities in the Merrimack Valley) through (1) additional resources to support customers, (2) increased participant incentives/rebates, and (3) targeted marketing efforts (Exh. DPU-Columbia 1-1).

For example, Columbia Gas proposes to send additional crews to perform home assessments in the affected area (Exh. DPU-Columbia 1-1). For affected residential customers whose home assessments recommend weatherization measures, Columbia Gas proposes to waive the customer contribution for such measures (Exh. DPU-Columbia 1-1). Further, Columbia Gas proposes to offer increased rebates and manage the rebate process for the residential self-installation of high-efficiency equipment (Exh. DPU-Columbia 1-1).

Similarly, Columbia Gas proposes to assign additional project managers to assist affected small business owners with the installation of new equipment and to provide additional rebates to small businesses that pursue high-efficiency equipment installation on their own (Exh. DPU-Columbia 1-1). Additionally, Columbia Gas states that qualified small businesses (including non-profits and faith organizations) will be eligible for no-cost weatherization measures or enhanced incentives to mitigate certain barriers to energy efficiency installations through C&I retrofit and direct install programs (Exh. DPU-Columbia 1-1). Finally, Columbia Gas proposes to coordinate marketing and education efforts related to dedicated resources for the Merrimack Valley with National Grid (electric) (Exh. DPU-Columbia 1-1).

Columbia Gas states that it already has started to roll out some of these offerings but that adequately serving the Merrimack Valley will require sustained efforts throughout 2019 (Exh. DPU-Columbia 1-1). Therefore, Columbia Gas proposes to evaluate the costs and savings of the relevant programs over the course of the year (Exh. DPU-Columbia 1-1).

3. Positions of the Parties

a. Columbia Gas

Columbia Gas argues that its proposed efforts to target affected customers in the Merrimack Valley align with the expectations of the Council in its October 30, 2018 resolution (Exh. DPU-Columbia 1-1). In addition, Columbia Gas asserts that targeting affected customers in the Merrimack Valley, as a specific geographic area that has a large concentration of underserved customers, is consistent with the stakeholder recommendations it received throughout the development of its Three-Year Plan (Exh. DPU-Columbia 1-1).

b. Conservation Law Foundation

CLF supports Columbia Gas' use of energy efficiency resources in assisting customers affected by the September 2018 incident in the Merrimack Valley, especially in Lawrence, which it notes is an environmental justice community[75] (CLF Brief at 49). CLF requests that the Department require Columbia Gas to report on the progress of its efforts in the

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[75] In Massachusetts, a community is identified as an environmental justice community if any of the following are true: (1) it is a block group whose annual median household income is equal to or less than 65 percent of the statewide median; (2) 25 percent or more of the residents identify as a race other than white; or (3) 25 percent or more of households have no one over the age of 14 who speaks English only or very well. Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs (January 31, 2017).

Merrimack Valley, including the following: (1) progress updates; (2) installation updates; (3) budget updates; (4) marketing updates; (5) progress on addressing barriers; (6) pilots or new technology updates; and (7) coordination with National Grid (electric) (CLF Brief at 50).

4. Analysis and Findings

Columbia Gas already has begun implementing targeted efforts to support the installation of high-efficiency equipment and weatherization measures for residential and business customers affected by the September 2018 incident in the Merrimack Valley (Exhs. CMA-2, at 68; DPU-Columbia 1-1). The bulk of these efforts will be rolled out during 2019 (Exh. DPU-Columbia 1-1). This provides an opportunity for Columbia Gas to pursue the lowering of energy demand for the affected area.

As part of its 2019 Annual Report, Columbia Gas shall include a detailed report on the status of its targeted efficiency measures in the Merrimack Valley. Further, Columbia Gas shall provide reports on the status of its targeted efforts in the Merrimack Valley as part of its quarterly updates to the Council, beginning with its first quarterly report of 2019. Both the Annual Report to the Department and the quarterly reports to the Council should address all relevant information regarding customer participation, costs, benefits, and savings resulting from these efforts in the Merrimack Valley.

D. Data Reporting and Tracking

1. Program Administrators Proposal

With respect to data reporting and tracking in the Three-Year Plan term, the Program Administrators propose to (1) continue to maintain Mass Save Data[76] and (2) include additional information on a bi-annual basis as part of their quarterly reports to the Council[77] (Statewide Plan, Exh. 1, at 179-180). Specifically, the Program Administrators propose to provide the following bi-annual information to the Council: (1) the number of approved applicants in the moderate income offering; (2) the number of approved applicants in the moderate income offering that result in weatherization jobs; (3) the number of participants (excluding upstream and behavior) by zip code, broken out by (a) residential-sector initiatives subtracting moderate income offering participants, (b) moderate-income offering, and (c) low-income initiatives; (4) small business savings, budgets, and participation across all C&I initiatives; and (5) streetlight conversions (Statewide Plan, Exh. 1, at 179).

Finally, the Program Administrators have agreed to include six additional performance indicators in their quarterly reports to the Council (Statewide Plan, Exh. 1, App. F at 9).

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[76] Mass Save Data is the publicly accessible statewide energy efficiency database developed and maintained by the Program Administrators. 2016-2018 Three-Year Plans Order, at 145. Mass Save Data contains both granular and high level information that, while protecting customer privacy, draws on contractor evaluations, customer profile studies, and geographic information (Statewide Plan, Exh. 1, at 180-181). Mass Save Data is available at http://www.MassSaveData.com.

[77] Currently, the Program Administrators provide publicly available reports to the Council (e.g., monthly data dashboards) and quarterly reports pursuant to G.L. c. 25, §22(d)).

The Program Administrators state that these additional performance indicators will be developed in consultation with the Council (Statewide Plan, Exh. 1, at 179).

2. Positions of the Parties

a. Program Administrators

The Program Administrators argue that they are committed to providing transparent and publicly accessible energy efficiency data, while ensuring customer confidentiality (Program Administrators Reply Brief at 22). The Program Administrators maintain that they provide these data through the Mass Save Data database, which contains information that is complementary to the data that the Program Administrators provide to the Department and the Council (Program Administrators Reply Brief at 22). Further, the Program Administrators maintain that they have agreed to work with the Council to report data on up to six additional, mutually agreed-upon performance indicators (Program Administrators Reply Brief at 22).

The Program Administrators assert that they can reasonably collect low-income participation data by zip code and will comply with the Council's request to provide these data bi-annually (Program Administrators Reply Brief at 22-23). In response to LEAN's assertion that the provision of such data every six months will not be meaningful, the Program Administrators acknowledge that snapshots of these data, provided at this level of granularity and frequency, should not be relied upon to draw any conclusions regarding program participation in one community versus another (Program Administrators Reply Brief at 23). Instead, the Program Administrators maintain that they will continue to rely on

customer profile studies and information collected over a longer term to determine the effects of energy efficiency programs on various communities and demographics (Program Administrators Reply Brief at 23). Finally, the Program Administrators maintain that providing zip code level participation data does not implicate any customer privacy concerns (Program Administrators Reply Brief at 23).

In response to CLF's argument that the Program Administrators should be required to track information on customer age, race, ethnicity, disability, income, and primary language, the Program Administrators assert that the Department has found that the Green Communities Act does not obligate them to track and report such data (Program Administrators Reply Brief at 23-24, citing 2010-2012 Electric Three-Year Plans Order, at 156). Further, the Program Administrators argue that the provision of such data would add significant, unnecessary costs and may deter customer participation in energy efficiency programs and initiatives (Program Administrators Reply Brief at 26). The Program Administrators note, however, that while they do not track customer demographic information while delivering program services, they do engage third-party evaluators to develop publicly available customer profile studies that examine the level of service to customers across all energy efficiency programs by town, income level, renter status, age brackets, and non-English speakers (Program Administrators Reply Brief at 24-25). In addition, for the 2019 through 2021 term, the Program Administrators maintain that they intend to conduct evaluations that will collect data regarding participation levels and potential barriers for

residential and business customers by income level and by non-English speaking populations (Program Administrators Reply Brief at 25-26, citing Statewide Plan, Exh. 1, at 29).

b. Acadia Center

Acadia argues that reliable, publicly available, disaggregated data on energy efficiency participants are needed to ensure equity in program accessibility (Acadia Reply Brief at 2). Therefore, Acadia requests that the Department require the Program Administrators to track and publicly report enhanced data on participant race, ethnicity, language, and income (Acadia Reply Brief at 4).

c. Conservation Law Foundation

CLF argues that energy efficiency resources are an important means to address energy insecurity and financial inequality in underserved communities, and there are insufficient data to assess participation in the Three-Year Plans by customers in underserved communities (CLF Brief at 16, 18-20). While CLF supports the Program Administrators' efforts to expand data collection and reporting, it asks the Department to consider the value of further expanding data collection to better serve environmental justice communities (e.g., tracking and reporting participant data disaggregated by race, ethnicity, language spoken, renters, homeowners, age, and income level, other than low income) (CLF Brief at 32, 36).

d. Low-Income Energy Affordability Network

LEAN requests that the Department deny the Program Administrators' proposal to report low-income participation data by zip code every six months to the Council (LEAN Brief at 6). LEAN asserts that six-month reporting by zip code will provide no reliable basis

upon which to draw conclusions about equitable service to low-income households because every geographic area cannot be simultaneously served in a six-month period (LEAN Brief at 5). LEAN argues that reporting low-income participation data over a longer period will provide a more meaningful measure of service across geographic areas (LEAN Brief at 6).

e. PowerOptions

PowerOptions asserts that digestible data reporting is important for both the Council and the public to assess the effectiveness of the energy efficiency programs (PowerOptions Brief at 12). To this end, PowerOptions maintains that it will work with the Program Administrators to develop the six new performance indicators intended to track Council priorities and Three-Year Plan progress (PowerOptions Brief at 12-13).

3. Analysis and Findings

The Program Administrators track and report various data related to their energy efficiency programs and initiatives pursuant to statutory requirements, Department directives, and Council agreements. See, e.g., G.L. c. 25, §§ 21(b), (c), (d); G.L. c. 25, §§ 22(d); D.P.U. 11-120-A, Phase II. The Program Administrators propose to continue to use Mass Save Data as the publicly facing repository for performance, cost, savings, usage, emissions mitigation, and measure-specific data[78] (Statewide Plan Exh. 1, at 180). In addition, as part of their quarterly reports to the Council, the Program Administrators have agreed to (1) include certain additional energy efficiency information on a bi-annual basis and (2)

[78] Mass Save Data presents customer usage data on a monthly and annual basis, and customer savings and incentives on an annual basis. These data are aggregated by zip code to the town and county levels (Statewide Plan, Exh. 1, at 180-181).

develop and report on six additional performance indicators (Statewide Plan, Exh. 1, at 179; App. F at 9).

Since it was first developed in 2014, the Program Administrators have continued to enhance and expand Mass Save Data (Statewide Plan Exh. 1, at 180). In its current form, Mass Save Data remains an essential tool to provide publicly accessible, transparent energy efficiency data in a format that fully ensures customer confidentiality (Statewide Plan Exh. 1, at 180-181). Accordingly, the Department approves the Program Administrators' proposal to continue to use Mass Save Data for energy efficiency data reporting.

CLF requests that the Program Administrators expand their data collection efforts to track and report on customer demographic information, including age, race, ethnicity, disability, income, and primary language (CLF Brief at 20). The Department shares the Program Administrators' concern that the tracking of such demographic data could implicate customer privacy issues and may deter participation in energy efficiency programs and initiatives by customers who do not want to disclose this information (Program Administrators Reply Brief at 25). In addition, the Green Communities Act does not require the Program Administrators to report such demographic data. 2010-2012 Electric Three-Year Plans Order, at 156; 2010-2012 Gas Three-Year Plans Order, at 163-164. With the exception of the data reporting directives addressed in Section VI.D above,[79] the Department

[79] In Section VI.D above, the Department directs the Program Administrators to track and report readily available data regarding renter participation. The renter population has been a hard-to-reach segment and was identified by the Council for further tracking and exploration (Statewide Plan, Exh. 1, Apps. D, E, F).

will not require the Program Administrators to track and report demographic data in the manner requested by CLF.

As an alternate source of demographic data, the Department notes that the Program Administrators retain third-party evaluators to develop customer-specific profile studies that examine the level of service to customer by town, income level, renter status, age bracket, and non-English speakers; these studies are publicly available.[80] Finally, for the 2019 through 2021 Three-Year Plan term, the Program Administrators will conduct evaluations that address participation levels and unaddressed barriers by income level and non-English speaking populations (Statewide Plan, Exh. 1, at 29). These efforts will be an important tool to help the Program Administrators and stakeholders improve the delivery of energy efficiency services to customers in underserved communities.

LEAN opposes the Program Administrators' decision to report low-income participation, by zip code, to the Council every six months (LEAN Brief at 6). LEAN asserts that this information will not provide a sufficient basis on which to draw conclusions on the equitable distribution of energy efficiency services to low-income customers (LEAN Brief at 5-6). The Program Administrators readily acknowledge that a snapshot of such data should not be relied upon, by itself, to draw conclusion on program participation (Program Administrators Reply Brief at 23). Rather, the Program Administrators state that they will

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80 The 2013-2015 Residential Customer Profile Report is available at http://ma-eeac.org/studies/.

continue to rely on customer profile studies, and other information collected over time, to inform any decisions on program delivery (Program Administrators Reply Brief at 23).

The Program Administrators have agreed to provide the additional data at the request of the Council (Program Administrators Reply Brief at 23). We recognize LEAN's concern that such data, if improperly used, may lead to inaccurate conclusions. In this instance, however, the information will be presented to the Council where its utility can be debated. Accordingly, we approve the Program Administrators' proposal to include additional information (including the contested low-income participation data) on a bi-annual basis as part of their quarterly reports to the Council.

E. Residential Conservation Services and Energy Scorecards

1. Introduction

The RCS statute was promulgated in 1980 and provides a framework for in-home energy conservation services for residential customers. G.L. c. 164 App., §§ 2-1 to 2-10. Pursuant to the Energy Act of 2012, the Program Administrators have elected to incorporate their RCS filings for 2019-2021 in their respective Three-Year Plans. St. 2012, c. 209, §§ 32(h), (i). Therefore, the Department must review the reasonableness of the proposed RCS budgets in the instant proceedings. G.L. c. 164 App., § 2-7(b); St. 2012, c. 209, § 32(i).

On April 17, 2017, DOER promulgated revised RCS regulations, 225 CMR 4.00. On September 19, 2018, DOER released final guidelines ("RCS Guidelines")[81] interpreting 225 CMR 4.00. The RCS Guidelines include a requirement that the Program Administrators must provide DOER-approved energy scorecards in conjunction with in-home energy audits (RCS Guidelines § 2.B.1).

2. Program Administrators Proposal

Each Program Administrator proposes to include its RCS budget as part of the Residential Existing Buildings program for each year of the Three-Year Plan (Statewide Plan, Exh. 1, at 47). The Program Administrators propose to use the RCS budgets to fund all costs related to residential energy assessments and site visits that are part of the broader Residential Coordinated Delivery initiative (Statewide Plan, Exh. 1, at 52). The Program Administrators state that they developed the Residential Coordinated Delivery initiative as part of a redesigned approach for providing energy efficiency services to residential customers in existing buildings (Statewide Plan, Exh. 1, at 52). The Program Administrators propose to recover RCS costs through the EES (Statewide Plan, Exh. 1, at 184 n.52).

The Program Administrators have agreed to implement energy scorecards as part of the residential in-home energy assessments (Statewide Plan, Exh. 1, at 52 n.24). The Program Administrators state they will develop the design for such scorecards in

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81 DOER, Guideline Interpreting 225 CMR 4.00 (September 24, 2018), available at https://www.mass.gov/files/documents/2018/09/24/RCS%20Guideline%20Final%209-24-18.pdf. Pursuant to 220 CMR 1.10(2), the Department takes official notice of the RCS Guidelines.

collaboration with DOER (Statewide Plan, Exh. 1, at 52 n.24). The Program Administrators further state that their target date for the roll out of energy scorecards is July 2019 (Statewide Plan, Exh 1, at 52 n.24). The proposed RCS budgets do not, however, include any allocated funding for the energy scorecards (Exhs. DPU-Comm 11-4; DPU-Comm 2-1).

3. Positions of the Parties

a. Program Administrators

The Program Administrators maintain that they have assented to DOER's directives to develop energy scorecards for residential customers who obtain in-home energy audits (Program Administrators Brief at 77). The Program Administrators assert that they intend to develop a design for such scorecards in consultation with DOER and determine an appropriate budget for scorecard implementation (Program Administrators Brief at 77). The Program Administrators seek Department guidance on the process they should follow to implement the energy scorecards (Program Administrators Brief at 78).

b. Attorney General

The Attorney General argues that the concerns raised by GBREB and MAR regarding the energy scorecards lack merit (Attorney General Reply Brief at 3). Contrary to GBREB and MAR's assertions, the Attorney General maintains that adoption of energy performance scores for residential properties has not been rejected by the Legislature (Attorney General Reply Brief at 3, citing GBREB Brief at 7; MAR Brief at 8). Further, the Attorney General argues that an energy scorecard would not be compulsory for all residential real estate sale transactions (Attorney General Reply Brief at 3).

c. Department of Energy Resources

DOER argues that the Department should approve the RCS budgets as proposed because they meet the standard for reasonableness (DOER Reply Brief at 3). In addition, DOER argues that the Program Administrators should be permitted to seek a midterm modification to their Three-Year Plans if the implementation of energy scorecards leads to an increase in RCS budgets of greater than 20 percent (or an alternate dollar value as specified by the Department) (DOER Reply Brief at 7, citing Guidelines § 3.8.1(3)).

DOER maintains that the energy scorecards will enhance the in-home energy assessment reports by providing information to customers about the benefits of implementing recommended energy efficiency measures (DOER Brief at 20; DOER Reply Brief at 4). DOER argues that a pilot program found significant customer support for information provided in the form of an energy scorecard (DOER Reply Brief at 4). Further, DOER maintains that the energy scorecards will be provided in conjunction with information on rebates, incentives, and financing available for energy upgrades (DOER Reply Brief at 5).

In response to the arguments raised by GBREB and MAR, DOER asserts that both 225 CMR 4.00 and the RCS Guidelines require energy scorecards and, therefore, GBREB and MAR have no basis to assert that the Department should reject the energy scorecards (DOER Reply Brief at 3, citing GBREB Brief at 6; MAR Brief at 6). In addition, DOER disputes GBREB and MAR’s allegations that its energy scorecard requirements are an attempt to circumvent Legislative intent regarding scorecards as part of real estate transactions (DOER Reply Brief at 4).

Finally, DOER argues that, contrary to GBREB and MAR's assertions, energy scorecards are not required to be cost effective (DOER Reply Brief at 6). Instead, DOER argues that the Department is only required to review the reasonableness of the proposed RCS budgets without regard to RCS program cost effectiveness (DOER Reply Brief at 6, citing 2016-2018 Three-Year Plans Order, at 99).

d. Acadia Center

Acadia argues that the Department should approve the energy scorecards as proposed and any associated RCS budgets (Acadia Brief at 6; Acadia Reply Brief at 4).

e. Greater Boston Real Estate Board

GBREB argues that the Department should not preapprove the proposed energy scorecards as part of its approval of the RCS budgets and, instead, direct the Program Administrators to file a midterm modification if and when energy scorecard program details and budgets have been finalized (GBREB Brief at 6; GBREB Reply Brief at 2-3). In particular, GBREB contends that the record does not support preapproval of the proposed energy scorecard program and cautions that energy scorecards could have significant and unintended consequences for the residential real estate market, which the Program Administrators have failed to account for in terms of cost effectiveness (GBREB Brief at 6-8; GBREB Reply Brief at 2).

GRBEB further argues that neither DOER nor the Program Administrators have provided any specific authority for or analysis of the proposed energy scorecard program (GBREB Reply Brief at 2, citing Program Administrators Brief at 7; DOER Brief at 20).

Finally, GBREB asserts that use of home energy scoring has been rejected by the Legislature on two prior occasions (GBREB Brief at 7).

f. Massachusetts Association of Realtors

MAR argues that energy scorecards will have significant and unintended consequences for the residential real estate market in Massachusetts (MAR Reply Brief at 2). In addition, MAR asserts that cost effectiveness of energy scorecards cannot be measured based on the evidence offered by the Program Administrators (MAR Brief at 7; MAR Reply Brief at 2). In particular, MAR argues that the budget and design of the proposed energy scorecard program have yet to be developed and, therefore, the cost effectiveness of the energy scorecards cannot be determined (MAR Brief at 7; MAR Reply Brief at 2).

MAR maintains that the Program Administrators offer no specific authority for or analysis of the proposed energy scorecard program, yet they request approval of the program (MAR Reply Brief at 1-2). Therefore, MAR argues that the Department should not preapprove the proposed energy scorecard program as part of its review of the RCS budgets and, instead, should require the Program Administrators to file midterm modifications to their Three-Year Plans, once the design of the proposed program is complete (MAR Brief at 10; MAR Reply Brief at 2).

4. Analysis and Findings

The Department has reviewed the Program Administrators' proposed RCS budgets for the 2019 through 2021 Three-Year Plan term and finds that the budgets are reasonable (see,

e.g., Exh. CMA-4 (Rev.) (December 20, 2018)). Accordingly, the Department approves the Program Administrators' proposed RCS budgets for 2019 through 2021.

Other than confirming that they intend to implement energy scorecards as part of the RCS program in the near future, the Program Administrators have not included an energy scorecard proposal or allocated any funding for energy scorecards in the RCS budgets approved by the Department above (Statewide Plan, Exh. 1, at 52 n.24; Exhs. DPU-Comm 11-4; DPU-Comm 2-1). Accordingly, the Department will not make any substantive findings regarding energy scorecards or associated RCS budgets in the instant proceeding. The Department encourages the Program Administrators to work collaboratively with DOER and other stakeholders, including GBREB and MAR, in designing the energy scorecards to ensure that ratepayers receive the greatest benefits.[82]

The Department's Guidelines do not address the process for amending an approved RCS budget. To the extent that the Program Administrators can implement energy scorecards within the scope of their approved RCS budgets, the Program Administrators will not be required to obtain Department approval.[83] However, to the extent that implementation of energy scorecards will require an increase to the approved RCS budget of greater than

[82] The RCS Guidelines at 4 n.4 provides that energy scorecard "design criteria and minimum requirements will be determined by DOER with the input of [Program Administrators], their audit vendors, and customer representatives."

[83] As part of its 2019 Annual Report, each Program Administrator shall address the implementation of energy scorecards, including budget.

20 percent, the Program Administrator shall file an amended RCS budget for Department review.

F. Pilgrim Fund

1. Introduction

NSTAR Electric seeks Department approval to apply approximately $275,000 (plus applicable interest) remaining in the Pilgrim Fund to supplement its low-income energy efficiency program delivery during the Three-Year Plan term (Statewide Plan, Exh. 1, App. K at 1). NSTAR Electric maintains that the Pilgrim Fund was created through various settlements between Commonwealth Electric Company ("Commonwealth"), the Attorney General, and LEAN to fund, among other things, low-income energy efficiency[84] (Statewide Plan, Exh. 1, App. K at 1).

Specifically, NSTAR Electric proposes to use these funds to complete health- and safety-related repairs through its Income-Eligible Coordinated Delivery Initiative (Statewide Plan, Exh. 1, App. K at 1). NSTAR Electric states that these repairs will address barriers that traditionally prohibit the installation of energy efficiency upgrades, such as knob and tube wiring, substandard roofs, faulty windows, and other physical obstacles to

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[84] The Pilgrim Fund is the result of an earlier settlement between Commonwealth and Boston Edison Company related to an outage at the Pilgrim Nuclear Power Station. Under the terms of the earlier settlement, Boston Edison Company paid Commonwealth certain funds to be applied to demand-side management programs that were to be specified by the Attorney General and then filed with the Department for approval (Statewide Plan, Exh. 1, App. K at 1). For further background on the Pilgrim Fund, refer to Cambridge Electric Light Co., D.P.U. 91-80, Phase 2-A (1992), and Cambridge Electric Light Company and Commonwealth Electric Company, D.P.U. 95-95 (1996).

weatherization (Statewide Plan, Exh. 1, App. K at 1). NSTAR Electric estimates that 35 to 40 homes will be served with these funds, at an average cost of $7,000 to $8,000 per home[85] (Statewide Plan, Exh. 1, App. K at 1). NSTAR Electric proposes to work collaboratively with the Attorney General and LEAN to administer these funds (Statewide Plan, Exh. 1, App. K at 1).

2. Positions of the Parties

a. NSTAR Electric

NSTAR Electric argues that use of the remaining Pilgrim Fund proceeds in the manner it proposes will provide an appropriate opportunity to undertake needed repairs in low-income households that could otherwise prohibit the installation of energy efficiency upgrades (Program Administrators Brief at 58).

b. Attorney General

The Attorney General supports the application of the remaining Pilgrim Fund proceeds as proposed by NSTAR Electric (Attorney General Reply Brief at 1-2). In particular, the Attorney General argues that the proceeds from the fund will benefit qualified low-income customers and deliver energy savings in an area not covered under traditional energy efficiency program funding (Attorney General Reply Brief at 2). The Attorney General maintains that she will work with LEAN and NSTAR Electric to ensure all existing

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85 NSTAR Electric states that repairs will be made to low-income single- and multi-family housing in the former Commonwealth and Cambridge Electric Light Company service areas (Statewide Plan, Exh. 1, App. K at 1).

funding is optimally leveraged before the disposition of any Pilgrim Fund proceeds (Attorney General Reply Brief at 2).

3. Analysis and Findings

The Department approves NSTAR Electric's proposal to use the remaining Pilgrim Fund proceeds, as part of its Income-Eligible Coordinated Delivery Initiative, to remediate pre-weatherization barriers. The Department finds that the use of such funds in the manner proposed by NSTAR Electric is consistent with the intent of the various settlements that created the Pilgrim Fund and will provide an important benefit to low-income customers who may not otherwise receive energy efficiency upgrades and services. The Department directs NSTAR Electric to work with LEAN and the Attorney General to ensure that the remaining Pilgrim Fund amounts are used to deliver the maximum benefit to eligible low-income customers.

G. Interim Continuation

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

In recognition of the need for continuity of energy efficiency programs, the Department has allowed for interim continuation of existing energy efficiency programs, pending approval of proposed new programs under review. See, e.g., 2013-2015 Three-Year Plans, Order on Motions for Interim Continuation (2012); 2010-2012 Three-Year Plans, Order on Motions for Interim Continuation (2009). Consistent with this practice, the Department has approved the Program Administrators' request to continue the existing Department-approved energy efficiency and RCS programs until the Department concludes its investigation of the Three-Year Plans in the instant dockets. 2019-2021 Three-Year Plans, Order on Motions for Interim Continuation (2018).

In order to ensure the continuity of energy efficiency programs in the future and obviate the need for motions for interim continuation, each Program Administrator may continue all energy efficiency and RCS programs approved in this Order, until the Department concludes its investigation of the subsequent three-year plans, unless otherwise ordered by the Department. The Program Administrators shall continue their existing energy efficiency and RCS programs at Department-approved expenditure levels for program-year 2021. All funds expended during the interim continuation of energy efficiency and RCS programs will be charged against the Program Administrators' 2022 budgets.

X. CONCLUSION

Each Program Administrator's Three-Year Plan must provide for the acquisition of all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply. See G.L. c. 25, §§ 19(a), 19(b), 21(b)(1); see also Guidelines

§ 3.4.7. The Department has reviewed the savings goals contained in the Three-Year Plans and finds that they are reasonable and are consistent with the achievement of all available cost-effective energy efficiency and demand reduction resources. In developing these goals, the Department finds that the Program Administrators have appropriately considered program sustainability as well new technologies and enhancements. In addition, the Department finds that the Program Administrators have appropriately considered service territory-specific savings drivers and have designed initiatives to address identified barriers. The Department expects that the Program Administrators will continue to identify and explore innovative strategies to address barriers to participation in energy efficiency for hard-to-reach customers.

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) uses competitive procurement to the fullest extent practicable; and (3) 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.

The Green Communities Act requires the Department to ensure that the energy efficiency sectors included in the Three-Year Plans are cost effective. G.L. c. 25, § 21(b)(3). The Department finds that each Program Administrator: (1) has appropriately evaluated the cost effectiveness of its energy efficiency programs; and (2) has demonstrated that, based on the projected benefits and costs, all energy efficiency sectors and programs are cost effective for each plan year and over the entire 2019-2021 Three-Year Plan term.

Pursuant to the Green Communities Act, the Three-Year Plans include a 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). Subject to certain modifications and disallowances addressed herein, the Department approves: (1) the statewide incentive pool; (2) the structure of the performance incentive mechanism for the savings and value components; and (3) the calculation of the savings and value component payout rates.

With respect to energy efficiency program funding, the Department has considered (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 rate increases on consumers, and finds that each Program Administrator may recover the funds to implement its Three-Year Plan through the EES. G.L. c. 25, §§ 19(a), 21(b)(2)(vii). In particular, the Department finds that the proposed budgets are appropriately designed to achieve savings goals while minimizing customer rate impacts.

Subject to the modifications and disallowances addressed herein, the Department concludes 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, disallowances, and directives contained herein, the Department approves each Program Administrator's Three-Year Plan and budget.

Significant benefits will flow to Massachusetts ratepayers from the energy efficiency program investments we approve today. The Three-Year Plans approved today incorporate

innovative approaches designed to achieve untapped energy and fuel savings while emphasizing a continued commitment to the appropriate use of ratepayer dollars. 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.

XI. ORDER

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

ORDERED: That the three-year energy efficiency plans for 2019 through 2020 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, and Yarmouth, and Dukes County, acting together as the Cape Light Compact JPE; 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 d/b/a Eversource Energy are APPROVED, subject to the modifications, disallowances, 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, and Yarmouth, and Dukes County acting together as the Cape Light Compact JPE; 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 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/
Robert E. Hayden, Commissioner

/s/
Cecile M. Fraser, Commissioner

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.