**COMMONWEALTH OF MASSACHUSETTS**
**DEPARTMENT OF PUBLIC UTILITIES**

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|---|---|---|
| The Berkshire Gas Company;<br>Eversource Gas Company of Massachusetts, d/b/a Eversource Energy;<br>Fitchburg Gas and Electric Light Company, d/b/a Unitil (gas);<br>Liberty Utilities (New England Natural Gas Company) Corp., d/b/a Liberty Utilities;<br>Boston Gas, d/b/a National Grid;<br>NSTAR Gas Company d/b/a Eversource Energy;<br>Cape Light Compact JPE;<br>Fitchburg Gas and Electric Light Company, d/b/a Unitil (electric);<br>Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid; and<br>NSTAR Electric Company d/b/a Eversource Energy<br>(2022-2024 Three-Year Energy Efficiency Plans) | ) | D.P.U. 21-120 through 21-129 |

# INITIAL BRIEF OF ACADIA CENTER


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## I. Introduction

Acadia Center appreciates the opportunity to file this brief concerning the Petitions of Boston Gas Company d/b/a National Grid ("National Grid Gas"); Eversource Gas Company of Massachusetts, d/b/a/ Eversource Energy ("Eversource Energy"); Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil Gas"); Liberty Utilities (New England Natural Gas Company) Corp., d/b/a Liberty Utilities ("Liberty"); NSTAR Gas Company, d/b/a Eversource Energy ("Eversource Gas"); The Berkshire Gas Company ("Berkshire"); Cape Light Compact ("CLC"); Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil Electric"); Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid (collectively "National Grid Electric"); and NSTAR Electric Company d/b/a Eversource Energy ("Eversource Electric") (collectively, the "PAs") for approval by the Department of Public Utilities (the "DPU" or "Department") of their three-year energy efficiency investment plans (the "Three-Year Plans") for the years 2022 through 2024.[1] As a non-profit research and advocacy organization committed to advancing the clean energy future, Acadia Center believes that the deployment of cost-effective energy efficiency and demand reduction resources and strategic electrification of buildings are essential components of the Commonwealth's economic and environmental strategies. The enactment of Chapter 8 of the Acts of 2021, *An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy* (the Climate Act) made the energy efficiency plans a formal tool of the Commonwealth's strategy to meet the 2030 climate mandate through achievement of the greenhouse gas reduction goal specified by the Secretary of Energy and Environmental Affairs (the "Secretary") on July 15, 2021. It also expanded the Department's authority to consider the

[1] The PAs' Initial Filings in the 10 separate cases all included the 2022-2024 Massachusetts Joint Statewide Electric and Gas Three-Year Efficiency Plan. Exh. BGC-1; Exh. FGE-1; Exh. LU-1; Exh. NG-Gas-1; Exh. Compact-1; Exh. FGE-1; Exh. NG-Electric-1; Exh. Eversource Energy-1. For ease of reference the Three-Year Plan and exhibits will be referred to as "Exh. Common-1".

energy efficiency plan as part of the Commonwealth's broader environmental justice and greenhouse gas reduction goals, requiring the Department to "with respect to itself and the entities it regulates, prioritize…equity and reductions in greenhouse gas emissions to meet statewide greenhouse gas emission limits and sublimits established pursuant to chapter 21N."[2] The 2022-2024 Plan continues the legacy of achievement that the Massachusetts energy efficiency plans have created and introduces a number of innovative shifts necessary to maintain high levels of savings and benefits and reduce greenhouse gas emissions in compliance with the Climate Act. Accordingly, Acadia Center recommends that the Department approve the 2022-2024 Statewide Plan and the Companies' individual Three-Year energy efficiency plans and associated budgets.

## II. Background

### A. The Green Communities Act and Stakeholder Council Process

#### *1. The Green Communities Act*

In 2008, "An Act Relative to Green Communities," Ch. 169 of the Acts of 2008, ("GCA") set the Commonwealth on a path toward greater investments in cost-effective electric and natural gas efficiency and cleaner, more efficient fossil fuel applications like combined heat and power. The GCA, among other things, directs Program Administrators ("PAs") to develop individual and statewide energy efficiency investment plans, establishes the Energy Efficiency Advisory Council (the "Council" or the "EEAC"),[3] and creates a stakeholder and regulatory process for review of the energy efficiency investment plans.[4] Amendments to the GCA through *An Act to Advance Clean Energy*, Chapter 227 of the Acts of 2018 ("2018 amendments"), expanded the scope of

[2] G.L. c. 25, § 1A.
[3] Acadia Center has a staff member who has been appointed to the EEAC. Among the intervenors in the above-captioned proceedings, the Department of Energy Resources, the Attorney General, the Low-Income Energy Affordability Network, and the Massachusetts Energy Marketers Association are also represented on the EEAC.
[4] G.L. c. 25, § 21, 22.

resources which the PAs may include in their three-year energy efficiency investment plans to include energy storage, demand management technologies, and strategic electrification.[5]

Subsequent amendments in the Climate Act further expanded the reach of the Three-Year Plans and the mission of the Department. In addition to its traditional mission of prioritizing reliability of service and affordability, the Department must now also prioritize in its decisions "safety, security,…equity and reductions in greenhouse gas emissions to meet statewide greenhouse gas emission limits and sublimits."[6] The law also requires the Secretary to set a quantitative goal for each plan to meet "each statewide greenhouse gas emissions limit and sublimit."[7] The Secretary set these goals in a letter to the PAs dated July 15, 2021, calling for a 504,000 metric ton reduction of CO2e from the electric sector and a 341,000 metric ton reduction of CO2e from the gas sector.[8]

Under the GCA, the Department was charged with ensuring that "electric and natural gas resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply" as a means to reduce energy costs for all customers.[9] The Climate Act modified the definition of cost-effectiveness, requiring that "when determining cost-effectiveness, the calculation of program benefits shall include calculations of the social value of greenhouse gas emissions reductions."[10] Further, the Climate Act placed an additional requirement that the Plans "be constructed to meet or exceed the [greenhouse gas reduction] goal set by the secretary."[11] Thus, Three-Year Plans must now meet a two-pronged test to be approved by the Department: they must meet the cost-effectiveness

[5] G.L. c. 25, § 21.
[6] G.L. c. 25, § 1A.
[7] G.L. c. 21N, § 3B.
[8] Exh. Common-1, Appendix D, at 3.
[9] G.L. c. 25, § 21(a).
[10] *Id.*
[11] G.L. c. 25, § 21(d)(4).

requirement, now incorporating the social value of greenhouse gas emissions reductions; and be constructed in such a way as to achieve the Secretary's greenhouse gas reduction goal.

*2. The Stakeholder Council Process*

In order to assist the Department in meeting its statutory obligations, the EEAC must review and, if appropriate, approve the PA program plans and budgets.[12] In developing its input on the 2022-2024 Statewide Plan, the Council undertook a comprehensive engagement process, including six public comment sessions, six topical workshops that featured extensive, in-depth discussion between the Councilors, the EEAC consultants and the Companies, and creation of an Equity Working Group (EWG) created "to develop recommendations for improving equitable participation in Mass Save®, with a specific focus on moderate income customers, renters, language isolated customers, small businesses and customers in Environmental Justice communities."[13] The Council issued a resolution on March 24, 2021 outlining its priorities for the upcoming three-year plans and making strategic and tactical recommendations for the PAs. Among the Council priorities were: enhancements to the Residential New Construction program, incorporation of the EEAC recommendations regarding Commercial and Industrial New Construction, expansion and enhancement of the active demand management offerings, utilization of the Income Eligible recommendations, incorporation of the EEAC's EWG recommendations, improvements to tracking and reporting to increase transparency, and changes to the Performance Incentive structure.[14]

In accordance with G.L. c. 25 §22(c) requirement to review the plan and submit its approval or comments to the Companies not later than three months after submission of the plan, the Council

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[12] G.L. c. 25, § 22(b).
[13] See EEAC Resolution Concerning Council Priorities for the Development, Implementation and Evaluation of the 2022-2024 Three- Year Energy Efficiency Plan, March 24, 2021, available at: https://ma-eeac.org/wp-content/uploads/FINAL-EEAC-Priorities-Resolution_Adopted-3.24.2021.pdf.
[14] *Id.*

submitted a subsequent resolution on July 28, 2021. This resolution articulated the Council's unanimous position that the proposed Three-Year Plan, while generally adopting the priorities of the previous resolution, provided insufficient detail on the specifics of program design to achieve the stated objectives.[15] Additionally, the Council indicated that these priorities did not appear to be reflected in the proposed budget, savings goals, and measure-mix benefit-cost models.[16] Further, the EEAC stated that general savings goals were lower than potentially achievable as identified by the PA's own studies and that detailed budgets and metrics supporting equity were not included.[17]

Following this resolution and the letter from the Secretary dated July 15, 2021 that set the greenhouse gas reduction target for the plan, the PAs submitted a revised draft Three-Year Plan on October 6, 2021. Following additional discussions and negotiations, the PAs provided the Council a Term Sheet and revised Data Tables, both dated October 25, 2021.[18]

The revised draft plan addressed many of the Council's priorities, making significant progress on addressing equity concerns and proposing aggressive savings goals. The draft plan called for a $3.94 billion investment in the program, which the PAs anticipate will provide $13 billion in benefits to ratepayers.[19]

On October 27, 2021, the Council unanimously voted to approve a Resolution that endorsed the Plan, assuming the Three-Year Plan filed with the Department conformed with the documentation that the Council had reviewed. This resolution states, in part:

> The Council commends the prioritization of electrification, deeper building retrofits, increased weatherization goals and incentives, workforce development and enhancing support for historically underserved communities and customers.

[15] Exh. 1, Appendix L.
[16] *Id.*
[17] *Id.*
[18] Exh. 1, Appendix N.
[19] *Id.*

> The Council also commends the PAs on their efforts between the April Draft and the October Draft Plan to reorient and expand the Plans to achieve EEA Secretary Theoharides' GHG emissions reduction goals for the 2022-2024 term.[20]

### B. The Companies' Three-Year Plans

On November 1, 2021 each of the Companies filed a petition for approval of its individual energy efficiency investment plan and the recovery of efficiency related costs for the period January 1, 2022 through December 31, 2024. In support of their plans, each Company filed a pre-hearing statement and multiple exhibits, along with numerous responses to information requests. Acadia Center filed for intervention on November 1, 2021, which the Department granted on November 8, 2021. Between December 9 and December 14, 2021, the Department conducted 4 days of evidentiary hearings.

## III. The Department Should Approve the Companies' Efficiency Plans Under the Requirements of the Green Communities Act and Department Precedent

The Department should approve the Three-Year Plans as filed, including the newly introduced components of expanded electrification (including electrification through gas programs), a broader focus on equity, an appropriate social cost of carbon and discount rate, and revised performance incentive structures. The 2022-2024 Statewide Plan puts the Commonwealth on course to achieve more than $13 billion in consumer benefits through increased investments in cost-saving energy efficiency, demand response, weatherization, and electrification. Acadia Center believes that the Statewide Plan is consistent with the requirements of the GCA, putting the Commonwealth squarely on the path to meeting its gas and electricity needs through a plan that provides (1) "all available energy efficiency and demand reduction resources that are cost effective

[20] *Id.*

or less expensive than supply;" and (2) "meet[s] or exceed[s] the [greenhouse gas reduction] goal set by the secretary."[21]

As the Department has repeatedly noted, "sustained growth of existing programs alone… will not satisfy the requirement to acquire all available cost-effective energy efficiency." [22] Rather, "the Program Administrators must continue to actively incorporate new technologies and address barriers to participation in order to expand both the supply of energy efficiency products and services and the demand for energy efficiency."[23] In the proposed 2022-2024 Plan, at the request of the EEAC and upon the requirements of the 2018 GCA amendments and the Climate Act, the PAs go even further than this to innovate – delivering significantly expanded electrification (including electrification through gas programs), a broader focus on equity (including a specific performance incentive dedicated to ensuring results), an appropriate social cost of carbon, and revised performance incentive structures that properly incentivize the PAs to achieve results they ordinarily would not.

Most important for the legal standards of the GCA, the 2022-2024 Plan proposes to provide both the nation-leading efficiency programs that the PAs have delivered for nearly a decade and the innovation described above in ways that remain cost-effective under the requisite test, results in minimal bill impacts, and meets greenhouse gas emission reduction goals. The Department should accordingly approve the proposed Three-Year Plan.

[21] G.L. c. 25, § 21(a); G.L. c. 25, § 21(d)(4).
[22] 2016 Order, D.P.U. 15-160 through 15-169 at p. 25-26, citing 2013 Order, D.P.U. 12-100 through 12-111 at 37.
[23] *Id.*

### A. The Department Should Approve the Three-Year Energy Efficiency Plan Because Each Individual Plan Meets the Statutory Threshold and Offers Cost-Effective Energy Efficiency Programs for Each Customer Sector.

Pursuant to the General Laws and Department precedent, the Department should approve each Company's Three-Year Plan because the implementation of the proposed programs contained therein are projected to be cost-effective.[24] The Department must screen the energy efficiency programs for cost-effectiveness to ensure the programs are designed to obtain energy savings and system benefits with a value greater than program costs.[25] The Climate Act also requires this calculation to include the social value of greenhouse gas emissions reductions.[26] The 2018 amendments state that this screening occurs at the sector level, stating:

> "For the purposes of reviewing cost effectiveness, programs shall be aggregated by sector. Any sector with a benefit cost ratio greater than 1.0 indicating benefits are greater than costs shall be considered cost-effective. 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 shall be terminated."[27]

The Department has also added a requirement in its guidelines to screen for cost-effectiveness at the core initiative level as well.[28]

The Department has determined that the Total Resource Cost ("TRC") test is appropriate for evaluating the cost-effectiveness of energy efficiency programs.[29] Each program presented in the three-year plan passes muster when the cumulative present value of its benefits is equal to or

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[24] Exh. Common-1, Appendix C.1 – Electric (Revised), Exh. Common-1, Appendix C.1 – Gas (Revised).
[25] G.L. c. 25, § 21(b)(3).
[26] *Id.*
[27] *Id.*
[28] D.P.U. 18-110 through D.P.U. 18-119, Hearing Officer Procedural Memorandum at 2 n.1 (October 3, 2018), Guidelines § 3.4.3.1.
[29] 2019 Order, D.P.U. 18-110 through D.P.U. 18-119, at 61, 2016 Order, D.P.U. 15-160 through 15-169, at 7, citing D.P.U. 08-50-A at 14 and Guidelines § 3.4.3.

greater than the cumulative present value of its costs, or in other words, the TRC benefit-to-cost ratio ("BCR") is above 1.0.[30]

Overall, the electric programs project a statewide TRC BCR for electric programs of 2.60 over the three years.[31] This means that, on average, for every $1 dollar invested in electric efficiency, $2.60 will be saved through energy efficiency and passive and active demand management programs.[32] Consistent with the Statewide Plan, each sector proposed by Cape Light Compact,[33] Unitil Electric,[34] National Grid Electric,[35] and Eversource Electric[36] will have BCRs that are greater than 1.0 and therefore meet the statutory requirement.

Similarly, each of the gas programs in the Statewide Plan also satisfies the cost-effectiveness requirement with a BCR greater than 1.0. The Companies project a statewide TRC BCR for gas programs of 2.66 over the three years.[37] This means, that on average, for every $1 invested in gas efficiency, at least $2.66 will be saved.[38] Consistent with the Statewide Plan, each

[30] See Energy Efficiency Guidelines at 3.4.3.1, stating that "an Energy Efficiency Program shall be deemed cost-effective if the cumulative present value of its benefits… are equal to or greater than the cumulative present value of its costs…".
[31] Exh. Common-1, Appendix C.1 – Electric (Revised), at 19.
[32] *Id.*
[33] See Exh. Compact-4 (3rd Rev.), at 19. CLC projects that Residential (2.87), Income-Eligible (2.49) and C&I (2.15) sectors will all be cost-effective for 2022-2024.
[34] See Exh. FGE-4 – Electric (Rev.), at 17. Unitil Electric projects that Residential (2.35), Income-Eligible (1.96) and C&I (2.92) sectors will all be cost-effective for 2022-2024.
[35] See Exh. NG-Electric-4 (Rev.), at 19. National Grid Electric projects that Residential (2.89), Income-Eligible (2.62) and C&I (2.26) sectors will all be cost-effective for 2022-2024.
[36] See Exh. Eversource Energy-4 - Electric (Rev.), at 19. Eversource Electric projects that Residential (2.62), Income-Eligible (2.87) and C&I (2.60) sectors will all be cost-effective for 2022-2024.
[37] Exh. Common-1, Appendix C.1 – Gas (Revised)
[38] *Id.*

sector proposed by Berkshire,[39] Eversource Energy,[40] National Grid Gas,[41] Unitil Gas,[42] Liberty,[43] and Eversource Gas[44] will have BCRs that are greater than 1.0, and therefore each program satisfies the threshold requirement of the statute. Thus, the programs proposed by each Company—both the individual programs and Statewide Plan —exceed the basic threshold required for Department approval and the Department should, therefore, approve the PAs' Three-Year Plans.

### B. The Department Should Approve the Three-Year Energy Efficiency Plan because they Meet the Two-Prong Test of Having Budgets that are Consistent with the "All Cost-Effective" Statutory Mandate and being Constructed to Meet or Exceed the Greenhouse Gas Reduction Goal Set by the Secretary.

#### *1. Proposed Budgets Meet the "All Cost-Effective" Statutory Mandate*

The GCA mandates that electric and gas distribution companies address the Commonwealth's energy needs by investing in "all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply."[45] This calculation of cost-effectiveness must also require the determination of benefits to include "calculations of the social value of greenhouse gas emissions reductions."[46] To achieve this standard, it is necessary that all PAs continue to build the investment levels of the efficiency programs they administer. The program budgets represent continued growth in the level of energy efficiency investments in

[39] See Exh. BGC-4 (Rev.), at 15. Berkshire projects that Residential (1.94), Income-Eligible (3.17) and C&I (4.02) sectors will all be cost-effective for 2022-2024.
[40] See Exh. Eversource Energy-4 -EGMA (Rev.), at 15. Eversource Energy projects that Residential (2.27), Income-Eligible (3.00) and C&I (2.77) sectors will all be cost-effective for 2022-2024.
[41] See Exh. NG-Gas-4 (Rev.), at 15. National Grid Gas projects that Residential (2.23), Income-Eligible (3.06) and C&I (3.33) sectors will all be cost-effective for 2022-2024.
[42] See Exh. FGE-4 - Gas (Rev.), at 13. Unitil Gas projects that Residential (1.58), Income-Eligible (3.01) and C&I (3.80) sectors will all be cost-effective for 2022-2024.
[43] See Exh. LU-4 (Rev.), at 15. Liberty projects that Residential (1.76), Income-Eligible (3.10) and C&I (3.59) sectors will all be cost-effective for 2022-2024.
[44] See Exh. Eversource Energy-4 – NSTAR (Revised), at 15. Eversource Gas projects that Residential (2.56), Income-Eligible (3.12) and C&I (3.00) sectors will all be cost-effective for 2022-2024.
[45] G.L. c. 25, § 21(a)
[46] *Id.*

the Commonwealth, commensurate with the need to support and sustain the aggressive savings goals outlined in the Three-Year Plans. The three-year budget levels represent a wise investment and are a vehicle for achieving the mandate of the Green Communities Act. Further, the PAs have included an appropriate social cost of carbon in their calculation of benefits. Thus, the Department should approve each Company's budget.

The proposed budgets are not set in a vacuum. The increase in energy efficiency budgets results in a modest set of bill impacts for all customer sectors. Importantly, however, these expenditures will also produce direct net customer benefits. In addition, the programs and the accompanying energy savings will produce macroeconomic benefits to the state, which are not included in this calculation. These benefits include the creation of local energy jobs over the three-year period and the multiplier effect on the state economy of the recirculation of the value of the energy savings.[47] For all these reasons, Acadia Center urges the Department to approve the budgets proposed by the Companies in their Three-Year Plans.

*2. The Plan is Constructed to Meet or Exceed the Greenhouse Gas Reduction Goal Set by the Secretary.*

The Climate Act updated the GCA to create a two-prong test for the Three-Year Plans. Pursuant to these new provisions, the Secretary has set a goal for greenhouse gas reductions for the plans.[48] The Department must now evaluate whether the plans have "be[en] constructed to meet or exceed [this] goal set by the secretary."[49]

On July 15, 2021, the Secretary sent a letter to the PAs establishing the greenhouse gas emissions reduction goal for the Three-Year Plans. This letter set the overall goals for the plans at

[47] See Energy Efficiency: Engine of Economic Growth, ENE (now Acadia Center), October 2009, available at: http://acadiacenter.org/wp-content/uploads/2014/10/ENE_ExecSum_EnergyEfficiencyEngineofEconomicGrowth_FINAL.pdf.
[48] G.L. c. 21N, § 3B.
[49] G.L. c. 25, § 21(d)(4).

a reduction of 504,000 metric tons of CO2e for the electric energy efficiency plan and 341,000 metric tons of CO2e for the gas efficiency plan, totaling 845,000 metric tons of CO2e reductions.[50] As required by the GCA, the letter also included sector-specific goals.[51] The PAs Three-Year Plan anticipates delivering 475,018 in metric tons in annual greenhouse gas emission reductions from the electric sector and 370,898 from the gas sector, totaling 845,916 metric tons of $CO_{2e}$ in overall reductions.[52]

Though the reductions from the electric sector do fall short of the goals developed by the Secretary, what matters in achievement of the greenhouse gas reduction mandate is overall greenhouse gas emission reductions. The PAs plan meets these overall goals thanks to higher estimated performance in the gas sector. To meet the 2030 climate mandate and decarbonize meaningfully, the Commonwealth must broadly electrify.[53] As a result, achieving greater greenhouse gas reductions in the gas sector, primarily through electrification of gas-heated buildings, is preferable. Additionally, the EEAC has unanimously endorsed achievement of the overall targets, stating that it "acknowledges and appreciates the PAs' efforts to meet the Secretary's GHG goal to ensure 2022-2024 investments are aligned with the Commonwealth's GHG goals."[54] Therefore, because the plan meets the overall greenhouse gas reduction goals and

[50] Exh. Common-1, Appendix D, at 3.
[51] *Id.* The 2025 Cumulative Annual Emissions Reduction goals expressed in metric tons of CO2e were set at 392,000 for Residential and Income Eligible Electric Energy Efficiency, 252,000 for Residential and Income Eligible Gas Efficiency, 296,000 for Commercial and Industrial Electric Energy Efficiency, and 156,000 for Commercial and Industrial Gas Efficiency. The 2030 Cumulative Annual Emissions Reduction goals expressed in metric tons of CO2e were set at 351,000 for Residential and Income Eligible Electric Energy Efficiency, 191,000 for Residential and Income Eligible Gas Efficiency, 153,000 for Commercial and Industrial Electric Energy Efficiency, and 150,000 for Commercial and Industrial Gas Efficiency.
[52] Exh. Common-1, at 43-44.
[53] See Draft Clean Energy and Climate Plan for 2030, December 30, 2020, available at: https://www.mass.gov/doc/interim-clean-energy-and-climate-plan-for-2030-december-30-2020/download.
[54] Exh. Common-1, Appendix N, at 3.

the EEAC has signaled its approval, Acadia Center urges the Department to approve the Three-Year Plans as being constructed to exceed the overall goal set by the Secretary.

*3. Electrification of Gas is Allowed Under the Amended GCA and does not Result in Cross-Funding Between Programs*

The use of the energy efficiency surcharge on gas customers to promote electrification is appropriate, and the Department should approve this component of the Three-Year Plans. It is important to note that electrification of gas fueled buildings does not mainly deliver electric efficiency savings. Rather, "a gas-to-electric fuel switching measure reduces total gas energy usage and delivers benefits to both the gas customer and by extension the gas system."[55] Because they drastically reduce gas energy use and deliver benefits to the gas system, the offerings to electrify gas-fueled buildings are appropriate and "consistent with how the PAs claim and pay for savings for all other measures in the PAs' portfolios."[56] Such increases in electric usage are allowed under the 2018 amendments as an example of "strategic electrification that result[s] in cost-effective reductions in GHG emissions and minimize ratepayer costs."

Electrification of gas customers is also cost-effective. According to the PAs, the vast majority of electrification offerings under their plan have a BCR that is above 1.00, making them cost-effective.[57] It must be acknowledged that some electrification measures are projected to have a BCR under 1.00 – though when evaluated at the core initiative level, all are above 1.00.[58] In addition, these offerings are necessary in order for electrification options to be available to all customers, and a necessary component to build the market and industry for widespread

[55] Exh. DPU-Comm 5-15.
[56] *Id.*
[57] Exh. Common-2, Attachment-A.
[58] *Id.* see also Exh. Common-1, Appendix C.1 – Electric (Revised), Exhibit 1, Appendix C.1 –Gas (Revised). Core Initiatives in the gas program with listed BCRs include Residential New Homes & Renovations (4.24), Residential Coordinated Delivery (2.90), Residential Retail (1.77), Residential Behavior (5.96), Income Eligible Coordinated Delivery (3.15), C&I New Buildings & Major Renovations (6.87), C&I Existing Building Retrofit (2.91), and C&I New & Replacement Equipment (3.41).

electrification. The PAs have stated that programs that allow all potential customers to participate best align with the Commonwealth's policies and simplifies customer participation.[59] These offerings will drive meaningful energy and greenhouse gas emission reductions and there is evidence that some consumers will choose these options, even if it is not in their short-term economic interest, because of other considerations not taken into account in the TRC but important to the consumer.[60]

Gas-to-electric fuel switching was authorized under the 2018 amendments as strategic electrification. These amendments allow the PAs to pursue all cost-effective energy efficiency through programs that "provide energy and demand savings through strategic electrification that result in cost-effective reductions in GHG emissions and minimize ratepayer costs.[61] In the last Three-Year Plan, the PAs offered a program with a goal of "provid[ing] customer education on every available option, including heat pumps and renewables, rather than pursuing only more efficient versions of what the customer currently."[62] The Department approved this approach, finding that it was "appropriately designed to deliver cost-effective savings with appropriate consideration of the long- and short-term rate and bill impacts that these strategies bring."[63] As stated above, the large majority of electrification offerings from the PAs are cost-effective.[64] They also offer significant gas energy savings and will provide meaningful greenhouse gas emissions reductions.[65] Therefore, the gas-to electric fuel switching programs offered by the PAs are appropriate under the GCA and past Department precedent.

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[59] Exh DPU-Comm 5-3, at 1.
[60] *Id.*
[61] 2019 Order, D.P.U. 18-110 through D.P.U. 18-119, at 149.
[62] *Id,* at 155.
[63] *Id.*
[64] Exh. Common-2, Attachment A.
[65] *Id.*

Further, the PAs' plans for expanded electrification with heat pumps are analogous to previous Three-Year Plans' use of Combined Heat and Power (CHP) systems. CHP systems are an electric energy efficiency measure that serve a customer's needs by providing "useful heat and electric power using less fuel than a typical system that generates power only."[66] The Department has approved the use of CHP systems in recent years without significant comment.[67] Electrification of homes through heat pumps serves essentially the same function as CHP, providing heat and power to consumers in a fuel-efficient manner, only reversing the roles of the gas and electric programs. Therefore, expanded electrification is in keeping with this past precedent from the Department.

### C. The Department Should Approve the Companies' Proposed Discount Rate and Social Cost of Carbon.

The Climate Act requires the PAs to modify their traditional approach to cost-effectiveness. Under this new approach of benefit calculation, the PAs "when determining cost-effectiveness, …shall include calculations of the social value of greenhouse gas emissions reductions."[68] The PAs had originally engaged in the region-wide Avoided Energy Supply Cost (AESC) study to developed avoided supply costs.[69] After the passage of the Climate Act, the PAs engaged with the study vendor to perform an updated review of the Social Cost of Carbon. [70]

The AESC study vendor provided the PAs with updated figures for the Social Cost of Carbon and discount rate that were based upon the far-reaching mandate of the Climate Act. In providing their updated figures, the AESC study vendor noted that the Social Cost of Carbon value

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[66] See Combined Heat and Power, accessed December 29, 2021, available at: https://www.mass.gov/service-details/combined-heat-and-power.
[67] 2019 Order, D.P.U. 18-110 through D.P.U. 18-119; 2016 Order, D.P.U. 15-160 through 15-169.
[68] G.L. c. 25, § 21(b)(1).
[69] Exh. Common-1, Appendix A, at 16.
[70] *Id.*

in the original study was likely too low.[71] Instead, the vendor utilized an updated discount rate of 1% and a social cost of carbon value of $393 per ton.[72] The vendor chose these values because they found that "discounting at higher rates does not appropriately account for the intergenerational nature of climate change" which the Climate Act is intended to address.[73]

Using the appropriate social cost of carbon is an essential step for the PAs to develop a plan that is in compliance with the Climate Act – both its requirement to utilize the social cost of carbon in the BCR, and its requirement to meet the greenhouse gas reduction target set by the Secretary."[74] The use of these updated figures, as recommended by the update to the AESC study, are critical mechanisms to drive greenhouse gas emission reductions and "most appropriately reflected the Commonwealth's policy goals on the urgency of avoiding the catastrophic intergenerational impacts of climate change."[75]

The Department should approve this lower discount rate and higher social cost of carbon in alignment its expanded mandate under the Climate Act. As stated earlier, under this law, the Department must prioritize equity and greenhouse gas emission reductions in its decisions.[76] Utilizing these values provides a way in which the Department can appropriately value the health of future generations in compliance with its expanded mandate.

### D. The Department Should Approve the Cape Light Compact Enhancements, Including the Cape Cod and Vineyard Electrification Offering

When evaluated by the EEAC and filed with the DPU, the three-year plan developed by the Cape Light Compact included an innovative plan to bundle energy storage, cold-climate heat pumps, and PV panels, named the "Cape Cod and Vineyard Electrification Offering" (CVEO).

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[71] Exh. Common-1, Appendix Q, Study 3, at 20.
[72] *Id.*
[73] *Id,* at 18.
[74] G.L. c. 25, § 21(d)(4).
[75] Exh. DPU-Comm 11-3.
[76] G.L. c. 25, § 1A.

The EEAC specifically lauded CVEO in its unanimous resolution approving the three-year plans, noting its "innovate[ive] approach to serving low- and moderate-income residents with a package of clean energy technologies to reduce GHG emissions through electrification."[77]

After the three-year plans were filed, on November 5, 2021, the Department issued an order determining that an earlier iteration of the CVEO, proposed by CLC for the 2021 program year, did not comply with state law. [78] The hearing officer then issued a memorandum instructing CLC to remove this iteration of CVEO from its three-year plan filing.[79] The Order in DPU 20-40 has been appealed by CLC and is docketed before the SJC as SJ-2021-0443. However, while under appeal the CVEO still remains in CLC's proposed Three-Year Plan.

Acadia Center emphatically supports CVEO and encourages the Department to approve it as filed. By integrating its efficiency, demand management, and strategic electrification planning efforts through the CVEO in a way that Acadia Center believes other program administrators should follow, CLC is leading efforts to address larger energy system concerns through the energy efficiency programs, deliver greater benefits to its customers, and achieve the Secretary's required greenhouse gas emissions reduction targets. The Department should similarly commend such efforts.

Instead, in its ruling in DPU 20-40, the Department found that PAs are charged under the GCA with reducing energy use.[80] The order states that because solar PV is an energy generating electrical system and does not necessarily lower a customer's consumption, it cannot qualify as an energy efficiency resource under the GCA.[81] Therefore, in the Department's view, energy

[77] Exh. Common-1, Appendix N, at 8.
[78] D.P.U. 20-40-A.
[79] D.P.U. 21-126, Hearing Officer Memorandum (November 12, 2021).
[80] D.P.U. 20-40-A, at 21.
[81] *Id.*

efficiency funds could not be used to fund solar PV programs under the CVEO. Similarly, the Department found that energy efficiency funding could not be used to support installing battery storage if, in addition to active demand management, it could also be used as a backup generation resource.[82] The Department further found the CVEO proposal suffered from additional defects, such as non-participant bill impacts and underestimated bill impacts, defects which, on their own, necessitate updated figures, not denial of the program.[83]

Acadia Center disagrees with these findings and believes it appropriate for the Department to approve the CVEO for this Three-Year Plan. First, it is well within CLC's authority to propose such a program. CLC is specifically authorized under G.L. c. 164, §134(b) as a municipal aggregator, to propose an efficiency plan that is more specific, detailed or comprehensive that the statewide plan. In addition, Department precedent allows individual Program Administrators to provide additional services or unique incentive structures that are specific to their territory.[84]

Second, the grounds on which the Department denied CVEO in Order 20-40-A are not supported by law. Section 21 of Chapter 25 of the General Laws outlines the types of programs that may be included Three-Year Plans. The 2018 amendments added "programs that result in customers switching to renewable energy sources or other clean energy technologies" to this list of authorized offerings.[85] By strictly holding that authorized programs must reduce energy use and cannot utilize energy generation, the Department's logic in Order 20-40-A runs counter to the plain legislative intent of the legislation, which was to promote fuel switching. Utilizing the Department's logic, it is difficult to determine what "renewable energy resources or other clean energy technologies" would be allowed under the Three-Year Plans. This Order appears to

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[82] *Id.*
[83] *Id.*
[84] E.g. 2016 Order approving Compact-specific incentive structure for renters. D.P.U. 15-166.
[85] G.L. c. 25, § 21(b)(2).

essentially lump this language in along with strategic electrification, despite existing in the law as two distinct clauses.[86] This ruling also runs counter to Department precedent, as the Department has approved use of energy efficiency funds for daily dispatch, targeted dispatch, and HEAT Loans to fund the purchase of battery storage, without any requirements that the batteries never be used for resilience purposes.[87]

Additionally, despite this ruling occurring after the effective date of the Climate Act, the Department failed to incorporate this updated statute in its decision. First, the Climate Act requires Three-Year Plans to be constructed to meet the greenhouse gas reduction goals set by the Secretary.[88] Second, the Department failed to account for the new mandate placed upon it and, by extension, all entities that it regulates. This new mandate states that the Department must prioritize equity and greenhouse gas emission reductions in its decisions.[89] The CVEO is a program offered to low- and moderate-income individuals that promotes fuel-switching, offering important policies for equity and greenhouse gas emission reductions. The Department neglected to reference either of these critical updates in its ruling.

Most importantly for this proceeding, CVEO is still an integral part of investing in all cost-effective energy efficiency and demand resources. CLC's enhanced incentives for storage and bundled offering of technologies authorized under the amended GCA are already included in its budgets, and, together with the rest of the residential sector, meet the statutory threshold as cost-effective.[90]

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[86] 2019 Order, D.P.U. 18-110 through D.P.U. 18-119, at 150.
[87] 2019 Order, D.P.U. 18-110 through D.P.U. 18-119 and 2020 Order, D.P.U. 20-33 through 20-36.
[88] G.L. c. 25, § 21(d)(4).
[89] G.L. c. 25, § 1A.
[90] Exh. Compact-4 (3rd rev.), at 12.

At the most basic level, CLC has identified a method through which it believes additional cost-effective efficiency and demand resources and additional greenhouse gas emissions reductions can be secured. To meet the GCA's mandates, it must, in fact, do so. Accordingly, as this innovative effort not only exceeds the minimum cost-effectiveness threshold for approval, but will also provide customers with substantial economic benefits, and helps to increase the amount of greenhouse gas emissions reductions the CLC plan can deliver in compliance with the Secretary's targets, The Department should approve CLC's Three-Year Plan as proposed, including CVEO.

### E. The Department Should Approve the Proposed Performance Incentives

Under the GCA, the three-year plans must include a proposed mechanism designed to provide an incentive to distribution companies based on their success in meeting or exceeding certain performance goals.[91] Section 3.6.2 of the Department's Guidelines outlines principles for the design of such a performance incentive mechanism. Pursuant to the Guidelines, an incentive mechanism must: (1) be designed to encourage Program Administrators to pursue all available cost-effective energy efficiency; (2) be designed to encourage energy efficiency programs that will best achieve the Commonwealth's energy goals; (3) be based on clearly defined goals and activities that can be sufficiently monitored, quantified, and verified after the fact; (4) be available only for activities in which the Program Administrator plays a distinct and clear role in bringing about the desired outcome; (5) be as consistent as possible across all electric and gas Program Administrators; and (6) avoid any perverse incentives.[92]

In the 2022-2024 Plan, the PAs have proposed an incentive mechanism based up benefits achieved in three components: 1) Equity 2) Electrification 3) the remaining "Standard"

[91] G.L. c. 25, § 21(b)(2)(v).
[92] Guidelines § 3.6.2.

component.[93] The proposed structure, including the new components related to the benefits from equity and electrification, meets the Guidelines' and statutory criteria and should be approved by the Department.

*1. Proposed Incentives Are Distinguishable from Metrics Previously Rejected by the Department*

The Department has repeatedly approved a performance incentive structure for the efficiency programs that is based on two components – savings and value.[94] The history of the third component of the incentive structure, based on specific metrics, has a more mixed standing. A routine part of efficiency plans prior to the GCA, the Department also approved 15 performance metrics for the 2010-2012 three-year plan.[95] However, the Department has been more critical of metrics in recent years, rejecting a renter metric proposed in the last Three-Year Plan.[96] This ruling affirmed D.P.U. 13-67, in which the Department found that performance metrics were no longer appropriate under the GCA.[97]

The performance incentives proposed by the Three-Year Plan are distinct from metrics that have been proposed in the past. Traditional metrics provide the PAs with additional funds for hitting certain thresholds, while also allowing them to collect an overall figure for total benefits. These performance incentives are instead as a benefits-based system, with three distinct pools of potential benefits and savings. The overall performance incentive is allocated between these three pools, and no portion of savings or benefits results in double recovery. A benefits-based performance incentive "appropriately aligns the PAs' performance with the pursuit of all available

[93] Exh. Common-1, Appendix A at 26 and Exh. Common-1, Appendix. S.1.
[94] 2019 Order18-110 through D.P.U. 18-119 at 92, 2016 Order D.P.U. 15-160 through 15-169 at 57, 69; 2013 Order D.P.U. 12-100 through 12-111 at 92-93.
[95] D.P.U. 09-116-B through D.P.U. 09-118-B, D.P.U. 09-120-B through D.P.U. 09-127-B (Aug 10, 2010) at 19-24.
[96] 2019 Order D.P.U. 18-110 through D.P.U. 18-119, at 95.
[97] Exh. Common-1, Appx A at 25.

cost-effective energy efficiency."[98] This model also allows the PAs to align with other state goals, like greenhouse gas emissions reductions.[99]

In its evaluation of the 2019-2021 Three-Year Plan, the Department was critical of the proposed renter mechanism in several ways, noting that: 1) a PA could claim multiple incentives from a single action, 2) a PA could claim a performance incentive even if the component threshold were not hit, and 3) the mechanism was not designed to induce the PA to undertake activities it normally would not.[100]

Even if these performance incentives were to be judged with the same lens as the renter metric, they do not possess the same defects. The PAs have undergone efforts to design the incentives in such a way that the savings and benefits pools do not cross. For example, the PAs admit that there are measures in the Three-Year Plans that could qualify for both the electrification and equity savings components.[101] However, despite there being overlap, the PAs designed the programs so that any electrification that occurs within the 38 communities or for the moderate-income customers would qualify for a performance incentive only within the equity component.[102] Further, any standard measures, such as weatherization, that occur within the 38 communities or for moderate-income customers would qualify only within the equity pool, as well.[103] Additionally, the design of the benefits-based performance incentive structure nullifies concerns about collecting performance incentives without reaching specific threshold level goals. These specific threshold goals were designed to be challenging, yet achievable targets.[104] Only upon meeting the specific threshold selected for each specific component can the PAs begin to collect a

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[98] *Id.*
[99] *Id.*
[100] *Id,* at 93-95.
[101] Tr. 3, at 418.
[102] *Id,* at 419.
[103] *Id.*
[104] *Id,* at 406.

performance incentive.[105] Finally, these performance incentives incent the PAs to undertake activities that they normally would not. Both electrification and the pursuit of greater equity in the programs require innovation and targeted effort. Without performance incentives, the PAs may pursue only the easiest savings, delivered by time-tested programs already set in motion, rather than the new pools of savings targeted under the plans. Additionally, for the gas PAs, electrification runs counter to their business model, as electrified customer homes stop paying customer charges and lessen the potential for returns on equity through gas system expansion. Therefore, it is evident that these performance incentives are distinct from metrics that have been previously rejected by the Department – and that they are needed to ensure achievement of the new goals in the plans.

*2. Equity Measure Appropriately Rewards Focus on Historically Underserved Population*

In the 2022-2024 Plans, the PAs propose an equity incentive based upon delivering benefits to designated environmental justice communities and for moderate-income customers statewide over the three-year period.[106] The PAs worked with the Department of Energy Resources (DOER) to identify 38 environmental justice communities throughout the Commonwealth met certain criteria, such as income, minority status, or English isolation, and that had been traditionally underserved by the efficiency programs.[107] The common payout rate for the electric PAs is 20 percent higher than the electric standard component payout rate and the common payout rate for the gas PAs is 55 percent higher than the gas standard component payout rate under the proposed

[105] Exh. Common-1, Appendix A at 28-29.
[106] *Id,* at 28.
[107] Exh. Common-1, at 21. These communities met the following criteria: 1) Greater than 33% of the municipality's population resides in block groups meet the criteria for an environmental justice population 2) At least one census block group in the municipality meets the state's environmental justice population income criteria and at least one additional criterion 3) Past energy efficiency program participation rate does not exceed 32% 4) Median household income is less than 100% of state median household income 5) The municipality is served by PAs for electric and/or gas accounts.

mechanism.[108] This performance incentive is designed in such a manner to appropriately incentivize the PAs to reach these traditionally underserved populations, even if it requires redesigning the way the PAs approach these communities.

The EEAC has set equity as a specific priority since the early planning process of the 2019-2021 term.[109] The Council believes that this proposed performance incentive will induce the PAs to significantly increase investment in underserved populations and environmental justice communities, and Acadia Center agrees with this assessment. As noted by the Equity Working Group of the EEAC in its enthusiastic endorsement of the equity incentive,

> "greater benefits delivered to these communities and residents are necessary not only to better reach those who have been historically underserved, but also to address inequities accrued over many years."[110]

The EWG worked with the PAs to develop metrics to track progress in equity, believing them necessary to address the needs of historically underserved populations, as what is measured can be managed. Working with the PAs, the EWG developed "equity-specific targets, with metrics for each of the underserved populations in addition to specific metrics focused on EJ Municipalities, community partnerships, and workforce development."[111] However, these metrics are just data points – no performance incentive attaches to them. The equity performance incentive, based on the total amount of benefits delivered to these communities, is even more necessary to inspire change by actually putting a portion of the PAs' incentive on the line for these communities.

Ultimately, the equity incentive represents a policy choice for the Department. Despite nearly a decade of striving for all cost-effective energy efficiency, the programs are still missing significant savings within some of the Commonwealth's more vulnerable populations. The equity

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[108] Exh. Common-1, Appendix A, at 28.
[109] Exh. Common-1, Appendix N, at 4.
[110] *Id.*
[111] *Id,* at 4-5.

incentive provides an innovative approach to reward PAs for focusing on specific cities and towns that have higher environmental justice populations and lower energy efficiency program participation, while still staying in line with the Department's Guidelines.

*3. The Electrification Performance Incentive Appropriately Rewards Focus on Electrification*

The 2022-2024 Three-Year Plan is the first plan to have a distinct greenhouse gas reduction requirement. The electrification component of the performance incentive measures the benefits of electrification in areas of the state that are not in environmental justice communities or for moderate-income households.[112] Similar to the equity incentive, the common payout rate for the electric PAs is 20 percent higher than the electric standard component payout rate and the common payout rate for the gas PAs is 55 percent higher than the gas standard component payout rate under the proposed mechanism.[113] This performance incentive is designed in such a manner to appropriately incentivize the PAs significantly expand electrification and is an essential part of supporting the new greenhouse gas reduction requirement. Therefore, this incentive structure should be approved by the Department.

A special targeted payout rate for electrification is needed to encourage the PAs to fully pursue new electrification activities. Electrification is a newly expanded program that, while it will deliver cost savings, may increase MWh usage, and requires significant market development that has already occurred for efficiency and passive demand resources.[114] Although this potential tradeoff is permissible under the 2018 Amendments,[115] and this new program was enthusiastically

[112] Exh. 1, Appendix A, at 29.
[113] *Id.*
[114] *Id.*
[115] Ch. 227 of Acts of 2018.

supported by stakeholders and the EEAC,[116] it still provides some risk to the PAs of receiving less performance incentive, if everything were measured under the traditional savings component.

While strategic electrification was offered in the last plan, it is dwarfed in size by the new scope in this plan and requires an entirely new approach by the PAs to deliver at this scale. Electrification is now a core initiative for the Three-Year Plan, with the budget for the heat pump offering now over $870 million.[117] Finally, electrification runs counter to the business model for the gas PAs. As more consumers electrify, the gas PAs will lose customers, their monthly charges, and the opportunity to earn returns on expanded gas infrastructure. Therefore, an incentive targeted toward delivering the benefits of electrification is necessary to overcome this barrier. For the above reasons, this additional component is appropriate and necessary to reward the PAs for taking on the risk of a new offering in electrification.

## IV. Conclusion

Acadia Center appreciates the opportunity to submit this Initial Brief. Based on the foregoing, Acadia Center recommends that the Department approve the 2022-2024 Statewide Plan and the Companies' individual Three-Year energy efficiency plans and associated budgets, including expanded electrification (with electrification through gas programs), a broader focus on equity, an appropriate social cost of carbon and discount rate, and revised performance incentive structures, as filed, inclusive of Cape Light Compact's CVEO program.

[116] Exh. Common-1, Appendix N, at 4.
[117] Exh. DPU-Comm 8-6.

Respectfully submitted,
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Dated: December 29, 2021

**CERTIFICATE OF SERVICE**

I hereby certify that on December 29, 2021, I electronically served the foregoing documents upon each person identified in the DPU's service lists for the above-captioned proceedings.

Respectfully submitted,

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