THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

Liberty Utilities (New England Natural Gas Company) Corp. d/b/a Liberty	))))	D.P.U. 23-__

PRE-FILED TESTIMONY OF

KIMBERLY DRAGOO,
STEPHANIE TERACH, AND
AUTUMN R. SNYDER

ON BEHALF OF

LIBERTY UTILITIES (NEW ENGLAND NATURAL GAS COMPANY) CORP. D/B/A LIBERTY

August 25, 2023

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KIMBERLY DRAGOO, STEPHANIE TERACH, AND AUTUMN R. SNYDER

I. INTRODUCTION TO TESTIMONY

Q. Ms. Dragoo, please state your name, business address, and employer.

A. My name is Kimberly Dragoo and my business address is 465 Sykes Road, Fall River, Massachusetts 02720. I am currently employed by Liberty Utilities Service Company ("LUSC") as the Director, Key Accounts and Efficiency Programs for Liberty Utilities Co.'s ("LUCo"). In this position, I am responsible for overseeing the development and implementation of energy efficiency for LUCo in all regions, including at Liberty Utilities (New England Natural Gas Company) Corp. d/b/a Liberty ("Liberty" or the "Company").

Q. Please describe your professional and educational background.

A. I hold a B.S. degree from Bridgewater State University and an M.B.A. from Boston University. I have been developing and engaged in the implementation of energy efficiency programs since 2002, first for National Grid as the Manager of Commercial and Industrial ("C&I") energy efficiency programs and later as a consultant with ICF where I was a Senior Director. In June of 2020, I joined LUSC in my current capacity.

Q. Have you previously testified before the Department of Public Utilities (the "Department")?

A. Yes, I submitted testimony in D.P.U. 21-123 regarding the Company's 2022-2024 Energy Efficiency Plan ("Three-Year Plan"), which was approved by the Department on January 31, 2022. I also submitted testimony in D.P.U. 22-94 regarding the Company's Category Two Mid-Term Modifications ("MTM") concerning the Company's C&I Existing Building Retrofit core initiative. More recently, I have provided testimony in Liberty's 2019-2021 term report, docketed as D.P.U. 22-113.

Q. Ms. Terach, please state your name, business address, and position.

My name is Stephanie Terach. My business address is 465 Sykes Road, Fall River, Massachusetts 02720. I am the Manager, Energy Efficiency and Customer Solutions for Liberty and am responsible for the implementation, design, and reporting of the Company's energy efficiency programs. I also serve as the Company's designee to the Massachusetts Energy Efficiency Advisory Council ("EEAC" or "Council").

Q. Please describe your educational and professional experience, including the responsibilities for your current role for your company.

I received a Master's in Business Administration degree in 2006 from Johnson and Wales University. I have worked in the energy efficiency industry since 2010 in various capacities and have been involved in Massachusetts energy efficiency administration since 2010. I joined Liberty as a member of the energy efficiency team in July of 2014. Prior to joining Liberty, I worked at Eversource as a program manager for residential customers in energy efficiency.

Q. Have you previously testified before the Department?

A. Yes, I have previously submitted an affidavit to the Department on behalf of Liberty in D.P.U. 21-18 regarding the termination of Liberty's Residential Home Energy Reports ("HERs") offering. I have also submitted written testimony in D.P.U. 21-123 regarding the Company's Three-Year Plan, and in D.P.U. 22-94, regarding the Company's Category Two MTM concerning the Company's C&I Existing Building Retrofit core initiative. More recently, I provided testimony in Liberty's 2019-2021 term report, docketed as D.P.U. 22-113.

Q. Ms. Snyder, please state your name, business address, and position.

A. My name is Autumn R. Snyder, and my business address is 116 North Main St, Concord, New Hampshire. I am a Program Manager for Liberty and responsible for the analytical planning and reporting of its energy efficiency programs.

Q. Please briefly summarize your educational background and business experience.

A. I received a bachelor's degree in Economics from Pennsylvania State University in 2010. I have worked in the energy efficiency industry since 2012. Prior to joining Liberty in February of 2018, I held an analyst position with GDS Associates, Inc. providing consulting services to energy efficiency program administrators with a specialized focus on evaluation, measurement, and verification.

Q. Have you previously testified before this or any other Commission?

A. Yes. I have testified on behalf of the Company in its 2019-2021 Energy Efficiency Plan, which was docketed as D.P.U. 18-113, as well as its current Three-Year Plan, D.P.U. 21-

123. I have also submitted written testimony in in D.P.U. 22-94, regarding the Company's Category Two MTM concerning the Company's C&I Existing Building Retrofit core initiative. More recently, I provided testimony in Liberty's 2019-2021 term report, docketed as D.P.U. 22-113.

Q. What is the purpose of this pre-filed testimony?

A. The purpose of this testimony is to present to the Department the Company's MTM to increase spending in the Residential, Income Eligible, and C&I sectors, to serve customers under the framework approved by the Department. As further explained below, the Company has experienced and has been responding to unexpected demand in several natural gas energy efficiency programs, which is expected to cause expenditures to exceed 100 percent of approved term budgets for multiple programs.

Q. Please summarize your testimony in support of this filing.

A. This testimony supports Liberty's request for an MTM to its Three-Year Plan, pursuant to section 3.8.2(c) of the Department's energy efficiency guidelines issued in <u>Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines</u>, D.P.U. 20-150-A (2021) ("EE Guidelines"), which requires Department approval and EEAC review of an increase or decrease to a three-year term sector budget that is greater than 10 percent. Liberty also seeks approval from the Department for the MTMs pursuant to <u>Three Year Plans Order</u>, D.P.U. 21-120 through D.P.U. 21-129 ("Three-Year Plans Order") at 225, n.138, 139 (2022), wherein the Department required that a program administrator of energy efficiency ("Program Administrator") that projects it will exceed a program-level budget over the three-year term, submit a request to increase spending simultaneously to the Department for approval and the Council for review. The Company is a Program Administrator of energy efficiency programs within the context of the Three-Year Plans Order. The Department also determined that to qualify for a program budget modification, the Program Administrator must demonstrate that an increase in budget results in an increase in kilowatt-hour ("kWh") or therm savings. Three-Year Plans Order at 225.

Q. Please describe Liberty's requested MTMs.

A. Specifically, in this filing, Liberty seeks approval of:

- A three-year term request to increase spending by $4,250,000 for its Residential Existing Buildings Program for the Retail, Residential Conservation Services, and Residential Coordinated Delivery core initiatives (a 39 percent increase).
- A three-year term request to increase spending by $800,000 for its Income Eligible Existing Building Program for the Coordinated Delivery core initiative (a 16 percent increase).
- A three-year term request to increase spending by $1,100,000 for its C&I Existing Buildings Program for the New and Replacement Equipment core initiative (a 44 percent increase).

Q. Are you providing any exhibits in conjunction with your testimony?

A. Yes. Accompanying this testimony, Liberty has provided the following exhibits:

- Exhibit LU-2, which provides the Company's savings, budget, and benefits table associated with each of the MTMs requested;
- Exhibit LU-3, which provides the anticipated bill impacts associated with each of the MTMs as requested; and

- Exhibit LU-4, which provides the Narrative Description of each of the MTMs as presented to the Council.

II. RESIDENTIAL SECTOR

Q. Please describe the purpose of the Residential Existing Buildings Program.

A. The Residential Existing Buildings Program for the Company's gas portfolio consists of two energy-saving core initiatives: Residential Coordinated Delivery ("RCD") and Residential Retail. In addition, the non-energy saving Residential Conservation Services ("RCS") core initiative is also included in the Residential Existing Buildings Program. The RCD initiative is designed to promote and facilitate the implementation of energy efficiency upgrades in existing homes to help customers reduce their overall whole-home energy usage, with a particular focus on improvements to the building envelope (D.P.U. 21-120 – D.P.U. 21-129, Exhibit 1, at 60). The Residential Retail core initiative "provides a broader integrated marketplace where energy-efficient products and equipment are positioned as attractive, primary choices for customers making purchasing decisions, whether online, in-store, or through independent contractors and distributors" (id.).

Q. What was the original budget approved by the Department for the Residential Existing Buildings Program?

A. The original budget approved by the Department for the Residential Existing Buildings Program was $10,807,140.

Q. What has prompted the request for an MTM for the Residential Existing Buildings Program?

A. High demand in the Residential Retail core initiative driven by heat pump rebates is expected to result in a term budget of $6,166,655, or an increase over the original approved budget by approximately $3,200,000, or 108 percent in this core initiative. Demand for residential weatherization is also trending slightly above projected levels resulting in expected incremental spending of $950,000 within the Residential Coordinated Delivery core initiative (fourteen percent above planned spending) and $100,000 within the Residential Conservation Services core initiative (ten percent above planned spending). Overall, this translates to an expected increase in spending at the Program level of approximately $4,250,000, or a 39 percent increase compared to the approved budget.

The higher-than-expected expenditure within the Retail core initiative is driven by unexpected interest in and demand for heat pumps. In 2022, the Company expended 38 percent of all customer incentives in the Residential Retail core initiative on electrification measures, though the Company had planned for less than three percent of customer incentives for electrification. So far, during plan year 2023, nearly 80 percent of all customer incentives in the Retail core initiative have been for electrification measures.

Q. What additional spending authority is requested for the Residential Existing Buildings Program?

A. The Company seeks approval to increase spending for this program by $4,250,000, which would result in a total budget of $15,057,141, representing a 39 percent increase in the budget previously approved for the Residential Existing Buildings Program in D.P.U. 21-123. The Company anticipates that a significant majority of these new funds (approximately 75 percent) will be used to meet the increased demand within the Residential Retail core initiative.

Q. Would it be possible for the Company to continue to operate the Residential Existing Buildings Program within the confines of the original budget as approved by the Department?

A. No. Without changes to program or core initiative design, the Company will not be able to continue to operate the Residential Existing Buildings Program as approved in D.P.U. 21-123. In order to allow for fulfilment of prescriptive rebates for all measures currently being offered statewide, and to continue to serve customers seeking both electrification and non-electrification measures (such as weatherization) within the Residential Existing Buildings program, the Company requires additional funding.

Q. Should the MTM be granted for the Residential Existing Buildings Program will it result in additional therm savings?

A. Yes. The MTM will allow the Company to capture more natural gas savings than would be achieved without the requested funds, and more savings than were associated with this program in the Plan. The Company is projecting a 63 percent increase in annual therm savings and a 60 percent increase in lifetime therm savings.

Q. What are the implications to the Company and its customers if the MTM as proposed is not approved?

A. If the MTM is not approved, the Company will need to modify or cease offering customer incentives for certain measures in order to stay within the approved Existing Buildings Program term budget. Such modifications will undoubtedly cause disruption in the marketplace, including dissatisfied customers and contractors, and will likely prevent the Company from meeting its commitment to achieve the Department approved and legislatively mandated electrification and decarbonization goals.

Q. What are the Company's revised expectations related to demand for electrification measures within the Residential Retail core initiative for the ongoing 2022-2024 term?

A. The Company reported expenditures of $583,981 in incentives in Program Year 2022 related to the installation of 242 tons of heat pumps, though only $20,000 of heat pump incentives were originally planned for the first year of the Three-Year Plan term. Due to the design of the Residential Retail core initiative to promote heat pump adoption by customers, as well as contractors engaged with the Heat Pump Installer Network as a mass market retail program, there is no queue for participation in this initiative, and therefore no count of "currently planned or in-progress" installations. Since no queue or pipeline exists, the Company, in preparing this mid-term modification request, reviewed the rapid increase in demand for heat pump measures since the end of 2022, and estimated the future demand for these measures based on the pace of activity seen in the first half of 2023. Based on the current rate of installations and expenditures, the Company anticipates demand for more than 1,200 tons of heat pump incentives over the remainder of the term requiring approximately $2,920,050 in additional rebates at current incentive levels. Additional expenditures on external Sales, Technical Assistance and Training ("STAT") are also anticipated, including those associated with the onboarding and transition to a new rebate fulfillment vendor in the Residential Retail core initiative.

Q. How many full and partial displacement heat pumps has the Company rebated and of those installations how many are ducted vs. ductless?

A. In 2022, the Company provided incentives for 44 full displacement heat pumps and 52 partial displacement heat pumps (these represent installations at unique customer accounts and not total tons). Of the 44 full displacements, 39 were mini split heat pump ("MSHP") systems and 5 were central ducted systems. Of the 52 partial displacements, 45 were MSHP systems and 7 were central ducted systems. Through Q2 of 2023 the Company provided incentives for 75 full displacement heat pumps and 41 partial displacement heat pumps. Of the 75 full displacements, 60 were MSHP systems and 15 were central ducted systems. Of the 41 partial displacements, 29 were MSHP systems and 12 were central ducted systems.

Q. Was the increase in demand for electrification measures in the Residential Existing Buildings Program foreseeable?

No. The Company could not have anticipated such high demand for electrification measures within the Residential Retail core initiative during the planning process. The potential study commissioned to help inform planning for the 2022-2024 term modeled no savings from electrification measures given that they were non-cost-effective and would have required the study team to develop additional fuel switching models, which were not included in the Company's scope of work for this study. Furthermore, nothing in the Company's experience during the 2019-2021 term suggested there would be significant demand for these measures among its natural gas customers in the current term, even given the planned marketing and other activities.

Q. Has the Company followed the Department's directive to pair weatherization services with electrification measures to the extent feasible?

A. Yes. The Company has been following the protocols described in the Program Administrators' May 2, 2022 Compliance Filing to encourage weatherization for residential customers receiving incentives to install full or partial displacement heat pumps in their homes. In its 2022 Annual Report, the Company was able to verify weatherization for 64 percent of the installed heat pump tonnage reported in the Residential Retail core initiative including 113 tons of whole home heat pumps and 42 tons of partial displacement heat pumps. The Company is committed to training our vendors to promote air sealing and insulation in a home prior to the installation of heat pump measures. This not only ensures right sizing of the technology to maximize energy and cost savings, but also improves customer comfort and satisfaction.

Q. Does the Company expect the Residential Existing Buildings Program to be cost-effective over the term if the MTM is granted as proposed?

A. The Company is not certain that the Residential Existing Buildings Program will be cost-effective over the term, especially if the MTM is granted, and if the pace of adoption of electrification measures continues to increase. Currently, the Company does not project that the Residential Existing Buildings Program will be cost effective over the term, however the Company continues to aggressively market and promote cost-effective measures within the Residential Retail core initiative in an effort to achieve greater benefits over the term than total resource costs. Because electrification measures both reduce natural gas usage and increase the use of electricity, and because the avoided cost of natural gas is relatively low, the cost associated with measures is greater than the associated benefits. While evaluation of these measures continues, the energy and non-energy impacts of electrification measures for residential customers is currently not sufficient to overcome the negative benefits associated with increased electricity use. As a result, the measures are not currently cost effective.

In its Order on PAs' Joint Motion for Clarification dated February 15, 2022, at 10, the Department stated "… that for this Three-Year Plans [sic] term, it has approved the Program Administrators' proposed strategic electrification offerings, including those offerings that replace natural gas heating with efficient electric heating and are not cost-effective, *so long as they are within cost-effective programs"* (see D.P.U. 21-120 through 21-129 (Joint Motion for Clarification of the Program Administrators), at 10) (emphasis added).

Given this clarification, and the risk that continuing to meet the robust demand for heat pump measures may result in a non-cost effective Residential Existing Buildings Program, the Company requests the Department's guidance on whether to continue to offer heat pump measures to residential customers within the Residential Existing Buildings Program.

III. INCOME ELIGIBLE SECTOR

Q. Please describe the purpose of the Income Eligible Existing Buildings Program.

A. As described in detail in the Three-Year Plan for 2022-2024, the Income Eligible Existing Buildings Program is designed to serve residential customers whose income is at or below 60 percent of the state median income wherever they live. The Company works with Citizens for Citizens ("CFC"), Self Help, and South Middlesex Opportunity Council ("SMOC"), the local Community Action Agencies, to provide comprehensive weatherization services to income eligible customers living in 1-4 unit buildings and multi-family buildings with five or more units. A variety of non-energy saving services as well as energy efficiency measures are provided to this vulnerable, energy-burdened population with no out-of-pocket cost to the customer.

Q. What was the original budget approved by the Department for the Income Eligible Existing Buildings Program?

A. The original budget approved by the Department for the Income Eligible Coordinated Delivery Program was $4,878,009 over the 2022-2024 term.

Q. What has prompted the Company's request for an MTM for the Income Eligible Existing Buildings Program?

A. Unlike the MTM requests for additional funding for C&I and Residential programs detailed elsewhere in this testimony, the requested change in budget for the Income Eligible Existing Buildings Program is not driven by electrification measures. To date the Company has only received one request for a whole-home heat pump displacement project at an income eligible customer home. This project has not been completed, and the Company has yet to expend funds on heat pumps in the income eligible sector. While the Company expects some unplanned activity for heat pumps with full and partial displacement of natural gas heating equipment, the driver for an MTM in this Program is greater than anticipated spending for multi-family projects during the Three-Year Plan term. While the Company anticipated some heating system projects and weatherization activity in multi-family properties during planning, additional demand for incentives has emerged since the approval of the plan including a significant weatherization project impacting nearly 200 dwelling units.

Q. What additional spending authority is requested for the Income Eligible Existing Buildings Program?

A. Liberty requests an approval to increase spending in this program by $800,000 over the approved budget of $4,878,009, for a total of $5,678,008 or 16 percent more than the approved budget.

Q. Would it be possible for the Company to continue to operate the Income Eligible Existing Buildings Program within the confines of the original budget as previously approved by the Department?

A. No. In order to continue offering a suite of services to income eligible customers as proposed in the 2022-2024 Plan, the Company requires authorization to spend more than originally approved in the Income Eligible Existing Buildings Program.

Q. Should the MTM be granted for the Income Eligible Existing Buildings Program will it result in additional therm savings?

A. Yes. The MTM will allow the Company to capture more natural gas savings than would be achieved without the requested funds, and more savings than were associated with this program in the Plan.

Q. What are the implications to the Company and its customers if the MTM as proposed is not approved?

A. If the MTM is not approved, the Company will have to inform customers, as well as our Community Action Agency partners, CFC, Self Help, and SMOC that Liberty may not be able to help fund cost-effective projects consistent with approved plans and statewide program design in the third year of the plan.

Q. What are the Company's revised expectations related to the Income Eligible Existing Buildings Program for the 2022-2024 term?

A. While the increased funding associated with the requested MTM will allow Liberty to continue serving customers and pursue cost-effective energy savings in the Income Eligible Existing Buildings program, it is anticipated that it will drive modest gains in natural gas savings (three percent higher) and benefits (14 percent higher) over filed goals. Savings from two large multi-family projects are still being finalized and so preliminary estimates were included in the savings analysis. Preliminary estimates for the large weatherization project are showing a higher per unit cost and a lower per unit savings than planned, resulting in minimal incremental increases in projected energy savings for the Income Eligible Existing Buildings Program. Depending on the final savings calculations for these projects, expected therm savings achieved over the term could improve.

Q. Was the increase in demand in the Income Eligible Existing Buildings program foreseeable?

A. No. In planning for the 2022-2024 term, the Company included all anticipated single-family and multi-family activity but underestimated the continued strong demand for services in multi-family properties, as well as the higher cost to achieve savings.

Q. Does the Company expect that the Income-Eligible Existing Buildings Program will be cost-effective over the term if the MTM is granted as proposed?

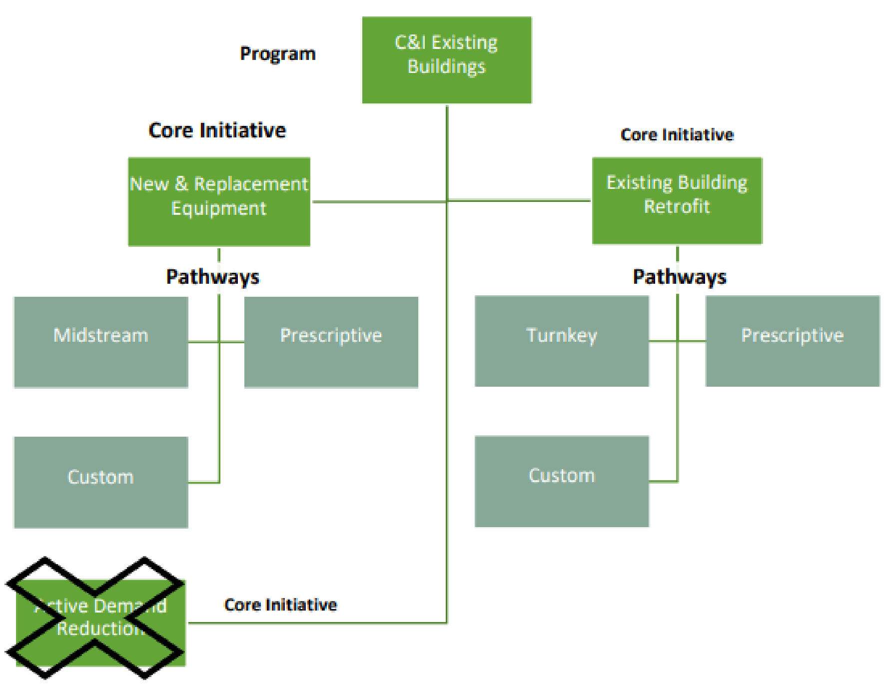
A. Yes. Despite the higher cost to achieve savings and benefits experienced term to date compared to plan, the Company projects to end the term with a benefit-cost ratio for the Income Eligible Existing Buildings Program greater than 3.0.

IV. C&I SECTOR

Q. Please describe the purpose of the C&I Existing Buildings Program.

A. As described in Exhibit 1 of the 2022-2024 Three-Year Plan, at Section 3.9.2, the C&I Existing Buildings program consists of two core initiatives for gas programs: (1) Existing Building Retrofit; and (2) New & Replacement Equipment. The Company works with its C&I customers to identify and support the improvement or replacement of existing systems and equipment to increase efficiency and reduce energy use. Each core initiative has three pathways that customers can use to access funding and technical support depending on their needs, as shown in Figure 3-29 below.

Figure 3-29: C&I Existing Buildings Program – Core Initiatives and Pathways



(see D.P.U. 21-120-D.P.U. 129, Exhibit 1, at 162).

Q. What was the original budget approved by the Department for the C&I Existing Buildings Program?

A. The original budget approved by the Department for Liberty's C&I Existing Buildings Program is $2,506,206.

Q. What has prompted the request for an MTM for the C&I Existing Buildings Program?

A. As noted above, Liberty's C&I Existing Buildings Program consists of two core initiatives for the gas portfolio. Under the EE Guidelines at § 3.8.2, Program Administrators are allowed to shift funds among core initiatives within a Program. However, the Department's recent ruling in Liberty, D.P.U. 22-94 (September 16, 2022), also requires that PAs seek approval to exceed the approved budget at the Program level (see EE Guidelines at § 3.8.2; see also D.P.U. 22-94, at 11). Therefore, the Company seeks an MTM at the program level, but also notes that the primary driver of increased spending is activity within the C&I New and Replacement Equipment core initiative due to increased demand for heat pumps.

Q. What additional spending authority is requested for the C&I Existing Buildings Program?

A. The Company seeks approval to increase spending for this program by $1,100,000, which would bring the proposed adjusted budget to $3,606,206, or an increase of 44 percent of the budget approved for the program in D.P.U. 21-123. A significant majority of these new funds will be utilized for participant incentives in the C&I New & Replacement Equipment core initiative.

Q. Would it be possible for the Company to continue to operate the C&I Existing Buildings Program with the original budget approved by the Department?

A. No. In order to allow for fulfilment of prescriptive rebate inquiries approved in the queue and to continue to serve customers seeking both electrification and non-electrification measures in the Existing Buildings program, the Company requires additional funding. Spending within the Existing Building Retrofit core initiative is proceeding as anticipated, and those funds are insufficient to meet the demand in the New & Replacement Equipment core initiative.

Q. Should the MTM be granted for the C&I Existing Buildings Program will it result in additional therm savings?

A. Yes, the increased spending will result in additional lifetime therm savings both compared to no additional spending and compared to planned savings within the core initiative. However, the cost to achieve natural gas savings is expected to be significantly higher than originally planned due to actual vs. planned measures mix. Several lower cost measures, such as food services equipment, were expected to generate more savings than are being realized, whereas more high-cost measures, such as heat pumps, are exceeding demand. Specifically, the Company projects a 28 percent increase in lifetime natural gas savings compared to the original Three-Year Plan.

Q. What are the implications to the Company and its customers should the MTM not be approved?

A. Without approval for the budget increase as requested, the Company will need to either modify or cease offering customer incentives for measures, which will deprive the Company's C&I customers access to incentives that are available to C&I customers in other natural gas territories. This would impact not only customers seeking prescriptive incentives for heat pump equipment, but those customers seeking support for other measures as well, including high-efficiency natural gas heating and hot water systems, food service equipment, and custom measures. Such modification or cessation will disrupt C&I customers' access to these measures and will prevent the Company's ability to provide all cost-effective energy efficiency and greenhouse gas reduction mandates. While the Company is experiencing high demand for heat pumps, simultaneously the Company is experiencing a dramatically lower demand for food services equipment, which comprised a significant share of planned savings from this core initiative. Without the approval of this MTM it is unlikely that the Company would meet annual and lifetime savings goals for this core initiative.

Q. What are the Company's revised expectations related to demand for electrification measures within the C&I New & Replacement Equipment core initiative for the 2022-2024 term?

A. The Company reported modest demand for prescriptive heat pumps displacing natural gas heating in the core initiative in 2022, ending the year claiming savings on fourteen tons of heat pumps and expending $41,845 in customer incentives out of a total core initiative budget of $199,446 for the year. Even with modest customer demand, due to the incentive levels offered for prescriptive heat pumps, a handful of projects can result in the Company expending a considerable portion of its planned core initiative budget on just a few projects. The Company has experienced increased interest in these measures in 2023 and expects this to continue throughout the rest of the term. Through June of 2023, the Company has spent $198,975 in customer incentives for C&I heat pumps. Based on applications in hand and expected sustained interest among customers, the Company currently estimates it will fulfill rebates related to more than 380 tons of heat pump technology in this core initiative over the remainder of the term requiring approximately $995,000 in customer incentives.

Q. Was the increase in demand for electrification measures within the C&I Existing Buildings Program foreseeable?

No. The Company could not have anticipated such high demand for electrification measures within the C&I Existing Buildings Program during the planning process. The Company did not anticipate any activity in the C&I sector related to heat pumps and variable refrigerant flow HVAC systems due to the relatively low cost of natural gas relative to electricity. Further, the potential study commissioned to help inform planning for the 2022-2024 term modeled no savings from electrification measures given that they were non-cost-effective and would have required the study team to develop additional fuel switching models, which were not included in the Company's scope of work for this study, and thus they were not included in the estimates of achievable potential. In addition, it was assumed that even with the significant marketing efforts and other activities intended to increase awareness of, demand for, and contractor experience with gas-to-electric measures, that it would take longer for the Company's C&I customers to become interested in and seek deployment of the technology.

Q. Has the Company followed the Department's directive to pair weatherization services with electrification measures to the extent feasible for the C&I Existing Buildings Program?

A. Yes. To date the Company has verified that approximately 20 percent of the C&I sector electrification projects meet the criteria for being considered weatherized. Additional efforts are being made to ensure that each C&I customer receiving electrification measures for HVAC has the opportunity and incentive to right-size their electric heating equipment and pursue weatherization wherever possible. However, because weatherization of existing C&I buildings is often more complex and expensive than the resulting energy savings justifies, pairing weatherization with electrification is not always cost-effective or practical.

Q. Does the Company anticipate that the C&I Existing Buildings Program will be cost-effective over the term if the MTM is granted as proposed?

A. Yes. Although for the first year of the Three-Year Plan, the benefits associated with prescriptive C&I electrification measures were not cost-effective, the evaluation results of a non-energy impact study completed in 2022 and applied to program year 2023 and 2024 measures increased claimable benefits of these measures, so that they now exceed the total resource cost. Over the term, the Company estimates the Benefit-Cost ratio of the C&I Existing Buildings Program and the C&I New & Replacement Equipment core initiative will exceed 2.0.

V. PERFORMANCE INDICATORS AND BILL IMPACTS

Q. How will approval of this MTM affect Liberty's ability to earn Performance Incentives pursuant to the Three-Year Plan?

A. The Company is not requesting any change in the Performance Incentive ("PI") framework filed in the Compliance Filing made on March 31, 2022. PI payout rates for the four components of PI (achievement of benefits related to equity, electrification, standard benefits and net benefits (also known as the "value component") will remain as approved.

In order to promote the achievement and aggressive pursuit of electrification and equity benefits, the Department in its Order approving the compliance filing removed the PA proposed cap on earnings related to equity and electrification, provided a minimum benefits threshold for all four components is met. Conversely, if a PA does *not* achieve the minimum benefits thresholds related to standard, equity, electrification and the value components (inclusive), then PI is capped at the design level for each of the PI components, regardless of performance.

In fact, the Company now anticipates, due to the low or negative net benefits of electrification measures, that it may not be able to achieve the net benefits threshold established for the value component of PI. If this occurs, the Company's PI will be capped at the planned PI level for all components even if it delivers more than the planned benefits for both equity and electrification. Even if the MTM is approved, additional customers are served, and high priority electrification measures are installed, the Company's PI will be severely limited if it fails to meet the value component threshold.

Further impacting Liberty's ability to earn PI, and as referenced above, is the fact that the Residential Retail core initiative within the Residential Existing Buildings Program is not projected to be cost-effective over the term due to the very high demand for electrification measures, which in and of themselves are not cost effective. Due to the size of the Residential Retail core initiative budget relative to the Existing Buildings Program, the program itself will likely fall below a 1.0 benefit/cost ratio. If that happens, the benefits associated with the Residential Retail core initiative will be removed from the calculation of performance incentive, per the EE Guidelines. D.P.U. 21-123 Order at 208.

Q. Are there any other issues you would like to address regarding performance incentives?

A. The Company respects the Department's Guidelines and precedents outlined above regarding the standards and thresholds for earning performance incentives, particularly the importance of running cost-effective programs. While Liberty does not propose any changes to such Guidelines or performance incentive precedent in this focused MTM proceeding, this MTM request highlights the fact that the Commonwealth has adopted a strong set of policies favoring electrification to achieve its climate objectives. Using current costs and benefits, some electrification efforts stand in tension with cost-effectiveness due to the relative avoided costs of electricity and natural gas. Liberty continues to aggressively market and promote cost-effective measures within the Residential Retail core initiative as well as weatherization measures within the Residential Coordinated Delivery core initiative in an effort to achieve greater benefits than total resource costs over term. Liberty respectfully requests that when the 2022-2024 term is completed, the Department not foreclose the possibility of waivers of threshold cost-effectiveness requirements if Liberty's implementation proves not to be cost-effective on account of its successfully meeting customer demand for heat pumps.

Q. Has the Company provided information relative to the bill impacts associated with its requested budget increases associated with this MTM?

A. Yes, Exhibit LU-3 provides a comparison between the bill impacts as included in the April 1, 2022 Compliance Filing and the bill impacts associated with the MTMs requested for all customer classes.

It is important to note that these bill impacts are provided for illustrative purposes only, to allow comparison between what was filed and approved in the Compliance Filing versus what would have been filed had the original budget included the additional funds requested with this MTM.

Bill impacts were calculated by customer class, taking all MTMs into account, including the additional funds requested for the income eligible programs, which are funded by both residential and C&I customers. The most significant variance in bill impacts related to the requested MTMs relates to Liberty's residential and low-income heating customers, who would see a 3.6 percent bill impact effective in year two of the plan compared to what was originally proposed for that twelve-month period. The total annual bill increase for a residential heating customer in this period is $60.95 and the total annual bill increase for a low-income customer in this period is $41.70.

Commercial and Industrial customers, would experience more modest bill impacts related to the MTM, ranging from a 1.8 percent increase for G-41 low annual use, low load customers to a 3.0 percent increase for our largest G-53 high annual use, high load customers in year two of the plan, compared to what was originally filed.

VI. CONCLUSION

Q. Does this conclude your testimony.

A. Yes. It does.