Mid-Term Modification Request for Eversource Energy (NSTAR Gas)
December 8, 2023

NSTAR Gas Company ("NSTAR Gas" or the "Company") d/b/a Eversource Energy is committed to achieving its designated energy efficiency goals and serving its customers in the best, most equitable way through its Energy Efficiency programs. The current trajectory of spending will trigger the need for approval from the Energy Efficiency Advisory Council ("EEAC" or "Council") and the Department of Public Utilities ("Department") through a Mid-Term Modifications ("MTM"). The Company has seen lower-than-expected performance within its Residential programs and lagging demand in its Commercial & Industrial ("C&I") programs. The Company is currently projecting five midterm modifications in its gas portfolio. NSTAR Gas is requesting additional funding for its: (1) Residential New Buildings & Major Renovations program, its (2) Residential Existing Buildings Program, its (3) Residential Hard-to-Measure program, and its (4) C&I New Buildings Program. Additionally, the Company is notifying the EEAC and the Department of an anticipated underspend of greater than ten percent in its C & I Sector.

The Energy Efficiency Guidelines were promulgated by D.P.U. 20-150-A on May 3, 2021 ("EE Guidelines"). Additional and supplanting directives on MTMs were provided in D.P.U. 21-125, as issued on January 31, 2022, in which the Department ordered that, "a Program Administrator may not exceed its planned program budget without approval by the Department." See Three-Year Plans Order, D.P.U. 21-120 through D.P.U. 21-129 ("Three-Year Plans Order") at 224 (2022). Further, the Department ordered that "[i]f a Program Administrator projects it will exceed a program-level budget, the Program Administrator shall simultaneously submit any proposed budget change (1) for review by the Council and (2) for review and approval by the Department." Id. at 225, n.139. The Guidelines at Section 3.8.2 also state that a Program Administrator that anticipates under-spending its three-year term sector budget by greater than 10 percent "shall submit its proposed modifications at the same time for (a) review by the Council, and (b) review and approval by the Department…" Accordingly, the Company has submitted this proposal simultaneously to the Council and the Department.

I. Residential Sector

Residential New Buildings Program

The Residential New Buildings Program is forecasted to exceed its filed budget by 19% and the Company is requesting an additional $1.1 million to support greater program activity than planned. Specifically, the Company had planned for a reduction in the number of new homes and dwelling units receiving incentives from the gas operating companies in 2024. This was in anticipation of more homes and dwelling units using new incentives toward all-electric construction . While the programs have seen an increase in all-electric construction compared to prior years, the transformation of residential new construction practices proved more challenging than anticipated when planning. As identified in the MA RNC Electrification Barriers Study, industry professionals remain skeptical of the economics, performance, grid impacts, and homebuyer preferences for all-electric homes compared with homes with natural gas heating, water heating, and cooking equipment (see D.P.U. 23-60, Appendix 4D, Study 22-

6). The PAs are continuing to work closely with our market partners to provide education on the benefits of all-electric homes, with a long-term goal of fundamentally transforming building practices.

The program overperformance is expected to result in greater therm savings than planned, and the Company is forecasting to reach 120% of its Lifetime MMBTU savings goals. Therefore, the Company seeks approval for a proposed increase of $1,134,000 which would result in a total authority to spend up to $6,959,000, or a 19 percent increase than the budget approved for the Residential New Buildings program in D.P.U. 21-125.

Residential Existing Buildings Program

The Company's Existing Buildings Program consists of two energy-saving core initiatives: Residential Coordinated Delivery ("RCD"), and Residential Retail. 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 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 or distributors" (id.).

The Residential Existing Building program has experienced greater activity than anticipated during planning for the 2022-2024 Term, and spending over the term is forecasted to be 22% above the approved budget. The higher-than-expected demand expenditures within the Residential Existing Buildings Program are primarily driven by the Residential Retail core initiative, which is forecasted to reach 195% of the forecasted spend as a result of much higher than planned demand for heat pumps from gas customers.

This overspending is correlated to overperformance on savings, and the Residential Retail core initiative is forecasted to reach 123% of planned Lifetime MMBTU savings. Savings achievement is slightly lagging spending because heat pumps are more expensive per unit of savings than other measures within the initiative.

Therefore, the Company seeks approval for a proposed increase of $24,351,000 which would result in a total authority to spend up to $132,961,000, or 22 percent increase than the budget approved for the Residential Existing Buildings program in D.P.U. 21-125. A significant majority of these new funds will be utilized in the Residential Retail core initiative.

Residential Hard to Measure Program

The Residential Hard-to-Measure Program in a non-energy saving program through which a myriad of activities supportive of customers, the stakeholder process, and future program planning are served. The Residential Hard-to-Measure core initiatives that support the Company's implementation of its 2022-2024 Energy Efficiency Plan ("Plan") are: Statewide Marketing; Statewide Database; DOER Assessment; Sponsorships and Subscriptions; Workforce Development; Evaluation and Market Research; EEAC Consultants; R&D Demonstration; HEAT Loan; and Education. For purposes of this MTM request, the Company is referring to this group of core initiatives as the "Residential Hard-to-Measure Program." These core initiatives contribute to or facilitate the program administrators' ("Program Administrator" or "PA") achievement of their goals (see D.P.U. 21-120 through D.P.U. 21-129, Exhibit 1 at 187-88). The Company's Residential Hard-to-Measure Program has experienced greater than anticipated customer participation in the Mass Save® HEAT Loan program ("HEAT Loan"). The HEAT Loan offers interest-free financing opportunities up to $25,000, with terms up to seven years, depending on the loan provider. The "incentive" associated with the HEAT Loan is the PA's buy-down of the interest on the loan. HEAT Loan financing is available for energy-efficient home upgrades like the installation of air source heat pumps (central or ductless mini-split), ground source heat pumps, heat pump water heaters, insulation and fossil fuel heating equipment. During the Plan term, the PAs are offering an electrification-specific HEAT Loan of up to an additional $25,000 (for a total potential customer loan amount of $50,000), including up to $5,000 for electrification barriers such as electrical panel upgrades, for customers who install heat pumps in their home.

Under the 2022-2024 Plan construct, HEAT Loan incentive costs are only covered by the Gas PAs in areas where the customer is served by a municipal light plant ("MLP"); otherwise, HEAT Loan costs are covered by the electric PAs. Term to date, MLP customers are participating in the programs at much higher rates than anticipated, therefore causing HEAT Loan costs to exceed what was planned. The Company estimates that HEAT Loan costs will be 259% of planned, or $1.5M over the initial budget. Due to under-spending in other areas of Hard-to-Measure, the total amount that the Company is seeking approval for is only $1.2M.

The increased expenditure on the HEAT Loan will not directly lead to additional therm savings. By definition, a Hard-to-Measure Energy Efficiency Program "refers to programs that have costs but do not have direct energy savings or whose energy savings may be difficult to quantify." Guidelines, §2. However, the funding increase will support the increased customer demand for use of the HEAT Loan to finance the installation of energy efficiency measures, which themselves may result in therm savings and/or greenhouse gas ("GHG") emissions reductions. Absent the ability for customers to finance an energy efficient measure with the HEAT Loan, a customer may choose not to pursue installation of that efficient measure.

Therefore, the Company seeks approval for a proposed increase of $1,177,000 which would result in a total authority to spend up to $7,562,000, or an 18 percent increase from the budget approved for the Residential Hard to Measure program in D.P.U. 21-125.

II. **C&I Sector**

As described in Exhibit 1 of the 2022-2024 Three-Year Plan, at Section 3.9, the PAs provide their C&I customers with a wide array of technical and financial supports and services to support investments in cost-effective GHG emissions reductions strategies and energy efficiency (see, D.P.U. 21-121 at 157). These supports and services are provided to customers considering the construction of a new building, planning a major renovation of an existing building, upgrading existing systems or equipment, or replacing systems or equipment that have or soon will fail, and are intended to educate customers about and motivate them to choose the most efficient, cost-effective options across all end uses regardless of industry or building type (id.). The Company continues to deliver strong energy efficiency results for its customers, and the sector overall is anticipated to reach its efficiency-related savings goals, and the Company is projected an overspend in the New Buildings Program. However, the Company is seeing greater than anticipated challenges in electrification of existing buildings, leading to an overall underspend for the sector. Therefore, the Company seeks simultaneous approval for a proposed program-level budget increase for the New Buildings Program and a sector-level decrease of $13,223,000 which would result in a total authority to spend up to $54,872,000, or a 19 percent decrease in the budget approved for the C&I Sector in D.P.U. 21-125.

C&I New Buildings Program

In the C&I New Buildings Program, the Company is seeing substantially more electrification production than planned. At the time of the Plan, the statewide program design did not explicitly incentivize electrification of building systems. In July 2022, however, the Mass Save PAs revised the program construct in order to offer significantly higher incentives to buildings that electrify their heating. The New Buildings Program is expecting continued success with electrification projects through the rest of the term. The programs are also engaged in substantial efforts beyond programmatic incentives to encourage electrification, such as the development of an industry ecosystem (trade allies/workforce), recruitment of new trade allies skilled in design and installation of heat pump projects, and upskilling internal staff, implementation vendors, and long-time trade allies with expertise in heat pumps and other electrification measures. NSTAR Gas is forecasting to spend 106% of the planned term budget and is requesting an additional $4,702,000 which would result in a total authority to spend $9,142,000 for the C&I New Buildings program.

C&I Existing Buildings Program

The Company's 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 and vendors to identify and support the improvement and replacement of existing systems and equipment to increase efficiency and reduce energy use.

The Company is projecting an underspend in the Existing Buildings program with only 71% of the budget used by the end of the term. This is primarily due to underspending on Electrification within the Existing Building Retrofit Core Initiative.

The Company is also somewhat underspent on non-electrification measures, though it projects to meet its savings goals for these base energy efficiency measures. The primary reason for this is a change in measure mix compared to Plan. Large, complex custom projects have become increasingly challenging to obtain in the C&I sector as a result of continued economic uncertainty in the wake of the COVID-19 pandemic, particularly for segments such as property management, retail, and hospitality. Rising interest rates, inflationary effects, and supply chain delays have made new projects even more difficult to undertake. In recognition of this changing dynamic among customers, the PAs have pivoted to meet customers where they are at, working to add more prescriptive offerings to the portfolio for simpler/quicker measures that might be easier for customers to undertake. These efforts saw success, and the Company is over-spent on the New and Replacement Equipment Initiative within Existing Buildings. The Company also put more emphasis on its building controls, building management systems, and retro-commissioning offerings. Since these types of projects tend to require less investment, the savings were able to be achieved at a lower than planned budget.

Despite this success on core EE, custom electrification, which was expected to drive much of the expenditure for this Program, has experienced challenges. The Company has found that there are greater technical barriers in medium and large buildings than was understood during planning. Specifically, there are no heat pump technologies that can be “dropped in” as a simple replacement for existing heating sources such as hot water boilers. This is due to the technical capabilities of each; most building systems that utilize boilers are designed for water temperatures of 180 degrees, while current heat pumps can only deliver a maximum temperature of 140 degrees. Therefore, electrifying the heat would require extremely expensive and disruptive construction within the building to modify the heating distribution system. The Company is working with customers, manufacturers, and building design firms to develop solutions to these barriers, but it will take time beyond the timeframe of this Plan.

The Company remains committed to securing all available energy efficiency savings and to the Commonwealth’s long-term decarbonization goals and has been working with customers to implement “electrification readiness” measures in the short term. These include building envelope improvements and optimization of building operations through installation of Building Management Systems (BMS) and Enhanced Monitoring-Based Commissioning (EMBCx), all of which ensures that the building is operating as efficiently as possible prior to electrification. The Company is also offering 100% cost coverage for scoping studies in order to ensure that there are no barriers to customers gathering the information needed to make a decision.