COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF PUBLIC UTILITIES |

Investigation by the Department of Public)	
Utilities on its own Motion into the Role of)	
Gas Local Distribution Companies as the)	D.P.U. 20-80
Commonwealth Achieves its Target 2050)	
Climate Goals)	

COMMENTS OF THE NATIONAL CONSUMER LAW CENTER

The National Consumer Law Center ("NCLC"), on behalf of its low-income clients, hereby files its Comments with the Massachusetts Department of Public Utilities ("DPU" or "the Department"), pursuant to the schedule established by the Administrative Law Judge in the above-captioned proceeding, which the Department initiated to develop a pathway to reduce greenhouse gas ("GHG") emissions from the sale and distribution of natural gas in order to meet the Commonwealth's goal of decarbonization of its energy supply by 2050.

As discussed below, NCLC urges the Department to:

- (1) ensure that low-income customers, who are unlikely to be able to afford the switch to clean energy appliances and migrate away from the gas utility system, are held harmless from increased utility costs associated with the transition to cleaner energy;
- (2) refrain from adopting any particular pathway recommended by the Local Distribution Companies ("LDCs") and their consultants at this time, given the significant and multi-faceted uncertainty surrounding technology development, costs of new fuels, customer adoption rates of new clean energy appliances, and whether the General Court and/or federal government will provide assistance outside of ratepayer funding to reduce transition costs;
- (3) initiate a least-cost GHG-reduction planning process, integrated with electric grid planning, to evaluate needed infrastructure changes and fuel procurement;

- (4) re-evaluate the necessity of the existing Gas System Enhancement Plan ("GSEP") tariff, which adds significant costs each month and for the foreseeable future to gas customer bills; and
- (5) reject the Local Distribution Companies' ("LDCs")¹ requested approval of a new Net Zero Enablement Plan Model Tariff ("Net Zero Tariff"), and other cost recovery proposals (in addition to the GSEP), which would enable unlimited spending on vaguely identified "transition costs" and place all financial risk associated with the transition to clean energy on ratepayers.

In support of these Comments, NCLC states as follows:

I. Background

On June 4, 2020, the Massachusetts Attorney General's Office ("AG") filed a petition seeking a Department investigation, pursuant to the DPU's authority under Mass. Gen. Laws Ch. 164, §§ 76, 105A, into the impact on the continuing business operations of local gas distribution companies as Massachusetts works to achieve its target 2050 climate goals.² As noted in the AG's Petition, the Commonwealth's current end goal is to reduce greenhouse gas ("GHG") emissions by 85 percent below the 1990 baseline emission level by 2050, with intermediary goals set for 2020 (25 percent reduction) and 2030.³ In its petition, the AG offered a proposed

¹ The LDCs consist of The Berkshire Gas Company, Eversource Gas Company of Massachusetts and NSTAR Gas Company, collectively d/b/a Eversource Energy; Fitchburg Gas and Electric Light Company d/b/a Unitil; Liberty Utilities (New England Natural Gas Company) Corp. d/b/a Liberty; and Boston Gas Company d/b/a National Grid.

² Petition of the Office of the Attorney General, pursuant to G.L. c. 12, §§ 11E, 10; and its common law authority to act in the public interest, Requesting an Investigation, pursuant to the Department of Public Utilities' authority under G.L c. 164, §§ 76, 105A into the impact on the continuing business operations of local gas distribution companies as the Commonwealth achieves its target 2050 climate goals, June 4, 2020. ["AG Petition"]

³ AG Petition at 4; *See* the Global Warming Solutions Act ("GWSA"), St. 2008, c. 298, codified at M.G.L. c. 21N; Executive Office of Energy and Environmental Affairs' ("EOEEA") Determination of Statewide Emissions Limit for 2020 (Apr. 22, 2020), available at https://www.mass.gov/doc/final-signedletter-of-determination-for-2050-

framework for the DPU's oversight of a transition away from gas utility service in light of updated clean energy standards passed by the General Court:

Ensuring that Massachusetts LDCs' current and planned business and operating practices are consistent with the Commonwealth's 2050 emission reduction mandate and interim targets requires more from the LDCs than 'business as usual.' Just as declining fossil fuel demand is reshaping markets and business practices in global markets (due to a range of factors including a climate-risk driven transition to clean energy), the Commonwealth's climate policy requirements will have profound impacts on gas distribution system management, operations, and rates. This will require the LDCs to make significant changes to their planning processes and business model. It will also require the Department to develop new policies and structures to protect ratepayers and ensure a safe, reliable, and fair transition away from reliance on natural gas and other fossil fuels.⁴

Following the filing of AG's Petition, the Department voted on October 29, 2020, "to open an investigation into potential policies that will enable the Commonwealth to reach its goal of net-zero greenhouse gas emissions by 2050 and the role of Massachusetts LDCs in achieving that goal.⁵ ("Future of Gas Order") In doing so, the DPU's Order held:

Specifically, we will explore strategies to enable the Commonwealth to move into its net-zero greenhouse gas ('GHG') emissions energy future while simultaneously safeguarding ratepayer interests; ensuring safe, reliable, and cost-effective natural gas service; and potentially recasting the role of LDCs in the Commonwealth.⁶

⁵ DPU Docket No. 20-80, Investigation by the Department of Public Utilities on its own Motion into the role of gas local distribution companies as the Commonwealth achieves its target 2050 climate goals, Order of October 29, 2020 at 1.

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emissions-limit; (setting a legally binding statewide limit of net zero greenhouse gas emissions by 2050, defined as 85 percent below 1990 levels); State of the State Address (Jan. 21, 2021) (Governor commits to achieving net-zero greenhouse gas emissions by 2050), available at https://www.mass.gov/news/governor-baker-delivers-2020- state-of-the-commonwealth-address.

⁴ AG Petition at 2.

⁶ Future of Gas Order at 1.

The Department directed the LDCs to initiate a joint request for proposals for an independent consultant to conduct a study and prepare a report that, for each pathway proposed in the Executive Office of Environmental Affairs ("EEA") Roadmaps⁷, will:

- (1) Present a forecast, estimate, or other quantification of the costs and actual economy-wide GHG emissions reductions involved in transitioning the natural gas system.
- (2) Present a discussion of qualitative factors such as impacts on public safety, reliability, economic development, equity, emissions reductions, and timing.
- (3) Develop proposed recommendations to reduce GHG emissions from the sale and distribution of natural gas to meet applicable goals in relation to the Roadmaps, with specific initiatives, actions, and interim milestones.⁸

The Department's Order also required the LDCs and the selected consultant to engage in a stakeholder process to solicit feedback and advice on both the Report and the proposals prior to their submission to the DPU.⁹

On February 14, 2022, the AG and the Department of Energy Resources submitted a letter to the Department proposing a three-part regulatory process that would (1) allow the Department and parties time to evaluate the consultants' report and LDCs' business plans; (2) evaluate what changes in regulatory methods, procedures, and mechanisms are needed to best support affordable, just and reasonable natural gas distribution rates to customers in a market of declining gas sales; and (3) convene a working group to develop recommendations for the regulatory and legislative changes that will be necessary to align the GSEP with applicable climate mandates, while ensuring the safety and reliability of the transitioning natural gas system. The proposed process called for robust discovery by all parties, technical sessions with the consultants and gas company representatives, and comments.

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⁷ The EEA published the Commonwealth's Roadmaps in December of 2020. *See https://www.mass.gov/info-details/ma-decarbonization-roadmap*

⁸ Future of Gas Order at 5-6.

⁹ *Id.* at 6.

On March 18, 2022, the five local distribution companies ("LDCs") submitted the consultants' report, *The Role of Gas Distribution Companies in Achieving the Commonwealth's Climate Goals -- Independent Consultant Report -- Technical Analysis of Decarbonization Pathways*¹⁰ ("E3 Report"), and their individual proposals for Department action in this proceeding. Included in the filings is a document entitled, "Common Regulator Framework and Overview of Net Zero Enablement Plans," jointly filed by the five LDCs, which requests DPU adoption of a new cost recovery tariff and other cost recovery proposals to permit automatic recovery of the Net Zero Tariff and other cost recovery mechanisms.

The high-level conclusions of the E3 Report assert that pathways that coordinate the utilization of the gas and electric systems "show lower overall levels of challenge." In contrast, the authors state pathways that rely more heavily on emerging technologies, including renewable gas – or that rely entirely on electrification and gas decommissioning strategies by 2050 – "face challenges across several dimensions." The E3 Report authors provide a visual depiction of the various pathways and their anticipated costs that include relying on (1) efficient gas equipment; (2) hybrid electrification; (3) low electrification; (4) networked geothermal; (5) targeted electrification; (6) high electrification; (7) an interim 2030 Clean Energy and Climate Plan (CECP) developed by the Massachusetts EEA; and (8) 100% gas decommissioning, attached as Appendix A.

On March 23 and 24, 2022, the Department issued an Order and procedural memorandum responding to the AGO and DOER's letter. That schedule ordered the issuance of

¹⁰ DPU Docket No. 20-80, *The Role of Gas Distribution Companies in Achieving the Commonwealth's Climate Goals -- Independent Consultant Report*, E3 Energy+Environmental Economics, ScottMadden Management Consultants, March 18, 2022.

¹¹ E3 Report, p. 11.

¹² *Id*.

discovery to be answered by the LDCs, but only to be submitted by the Department Staff. A virtual technical session regarding both the consultants' report and the LDCs' specific proposed plans, including a presentation of the proposals and recommended regulatory and policy framework, were held, respectively, on March 30, 2022 and April 15, 2022. The Department specifically rejected the AG's proposal to assess the GSEP, stating that "the purpose of this investigation is not the operation of the GSEP," and that it would determine an appropriate forum for evaluating the GSEP at a later date. Under the DPU's schedule, following the filing of Comments on the E3 Report and LDC Plans on May 6, 2022, discovery closes on June 15, 2022; the Stakeholders' final comment deadline is June 22, 2022, followed by the LDCs' on July 6, 2022; and a final reply comment deadline for both LDCs and Stakeholders is August 10, 2022.

On March 28, 2022, Acadia Center, Conservation Law Foundation ("CLF"), Environmental Defense Fund ("EDF"), Home Energy Efficiency Team ("HEET"), and Sierra Club filed a Motion for Reconsideration, calling for the Department to extend the procedural schedule issued on March 24, 2022, and order an adjudicatory hearing process, including the opportunity for stakeholders and interested parties to intervene, conduct written discovery, present evidence, and cross-examine witnesses at technical sessions. The Department has yet to rule on the Motion.

The notice allowing parties to file Comments by May 6, 2022 directed parties to limit discussion to (1) the developed pathways set forth in the Report and the assumptions and modeling underlying the Report; and (2) the regulatory framework necessary to support the equitable and safe transition to net-zero greenhouse gas emissions by 2050. In an April 15, 2022 notice, the Department elaborated on the original scheduling Notice and encouraged "comments"

¹³ DPU Docket No. 20-80, Memorandum of March 24, 2020.

that raise issues with the consultants' reports and the LDCs' individual proposals and comments that make alternative proposals, particularly alternative regulatory framework proposals." The Department noted: "The Department's goal is to develop an overall regulatory framework that will be used to guide statewide and company-specific proposals, so the Department seeks alternative proposals that will inform the Department's analysis on the regulatory framework." ¹⁵

NCLC has participated in the Future of Gas proceedings as a stakeholder and presenter. For decades, NCLC has been actively involved in advocacy for low-income consumers in Massachusetts and throughout the country, including advocacy for utility bill affordability programs to keep vulnerable consumers connected to vital utility service. NCLC urges the Department to enter findings consistent with the recommendations in these Comments.

II. ARGUMENT

A. Low-Income Customers Must Be Held Harmless During the Transition.

Utility service is vital to health, safety, and economic security, both for individual households and communities at large. Indeed, the U.S. Supreme Court has held that "(u)tility service is a necessity of modern life; indeed, the discontinuance of water or heating for even short periods of time may threaten health and safety." Memphis Light, Gas and Water Div. v. Craft, 436 U.S.1, 18, 98 S. Ct. 1554 (1978).

As the Department contemplates what action is needed to help ensure the transition to clean energy within the Commonwealth, certain facts should guide its conclusions. Currently, Massachusetts consumers and consumers across the country struggle with energy affordability. Nationally, over one-third of households report experiencing energy insecurity, forcing utility

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¹⁴ DPU Docket No. 20-80, ALJ's Notice of March 15, 2022.

¹⁵ DPU Docket No. 20-80, ALJ's Notice of April 15, 2022.

customers to make difficult decisions each month regarding the need to reduce or forgo basic necessities like food and medicine to pay an energy bill.¹⁶

In Massachusetts, more than 200,000 low-income customers had utility bills in arrears as of December 2021. As of February of 2022, low-income customers with utility bills that were more than 90 days past due owed an average of \$1,555 (compared with \$1,193 for other residential customers who have not been identified as low-income consumers). ¹⁷ The impact of these arrearages would be far worse without the strong affordability programs and consumer protections that are available to Massachusetts utility customers, including the discount rate program, Arrearage Management Program, and disconnection protections available to households experiencing financial hardships. Yet, the E3 Report portends new and increased costs that will arise as part of any pathway toward net zero GHGs adopted by the Department.

In the coming transition to greater household electrification, transportation electrification, and a transition away from reliance on natural gas, it will be vitally important to keep both electricity and gas utility services affordable and accessible for all consumers, particularly those who have low household incomes. Equity demands that the Department's conclusions on any transition must avoid creating a two-tiered system that leaves low-income consumers stranded on the gas system as it grows more and more expensive, as the E3 authors predict. 18

A major concern identified by the E3 consultant report is that low-income customers, compared to other utility customers, are most likely to bear the financial brunt of the transition

¹⁶ U.S. Department of Energy, Energy Information Administration, Residential Energy Consumption Survey (2020), tabulated by National Consumer Law Center, April 2022.

¹⁷ National Consumer Law Center, Massachusetts Residential Utility Customers Still Owe Nearly \$100M More in Arrears Than at the Start of the Pandemic (February 2022), available at https://www.nclc.org/images/pdf/special_projects/covid-19/IB_MA_Arrears.pdf

¹⁸ Energy+Environmental Economics & Scott Madden Management Consultants, *The Role of Gas Distribution* Companies in Achieving the Commonwealth's Climate Goals, Independent Consultant Report, Technical Analysis of Decarbonization Pathways, p. 97 (March 18, 2022)

unless specific Department actions are taken to hold harmless those who can least afford the increased costs that will come with the transition. These increased costs to low income customers will come as a result of not being in a position to afford the switch from natural gas appliances to cleaner energy appliances, and will likely be the remaining customer group to finance the stranded costs of gas delivery infrastructure, with fewer customers to finance the system, as customers with more financial resources migrate off the gas delivery system through electric air source heat pump and other technology purchases.

The E3 Report in particular notes that low-income customers are unlikely to be able to easily switch-out natural gas appliances to cleaner options without significant financial assistance, as shown in the table below from the E3 report that highlights appliance costs:¹⁹

¹⁹ E3 Report, Figure 39, Overview of customer upfront costs by technology package, p. 105.



Figure 39. Overview of customer upfront costs by technology package.

The E3 Report also specifically highlights the challenge of achieving the Commonwealth's clean energy goals through decreased use of the gas utility network, while leaving stranded costs for those who cannot afford to make the switch to cleaner heating and cooking technologies. The E3 Report notes:

All pathways imply transformational change for the LDCs and their customers, raising substantial cost recovery and potential stranded cost challenges for those scenarios with high levels of customer departures.²⁰

In addition, the E3 Report notes that the gas delivery network cost recovery dilemma is exacerbated by the fact that investment in the gas network continues through the GSEP tariff:

²⁰ E3 Report at p. 14.

The LDCs are currently implementing system upgrades under the Gas System Enhancement Plan (GSEP) and those investments will increase the cost of the gas system and LDC revenue requirements over the coming decade, As customers depart the gas system in scenarios with high levels of electrification and customer migration, the costs for remaining customers increase to impractical levels. Those increases can be partially mitigated via measures like targeted electrification²¹, which reduces the remaining rate base of the gas system by up to \$4 billion in 2050. However, the degree to which cost savings from targeted electrification can be achieved is uncertain.²² (Emphasis added.)

Unless low-income customers are protected from increases in essential utility costs during the transition, continued access to essential utility services is threatened. The conclusions related to low-income customer cost impacts associated with any transition are worth highlighting. For example, the E3 Report authors state:

LDC customer bills rise in all pathways due to increases in both the delivery and commodity components of gas rates...

• Delivery costs rise in all scenarios due to GSEP and other system upgrade initiatives. However, LDC customer impacts are most acute in scenarios with high levels of electrification as the cost of gas infrastructure is spread over rapidly declining utilization. Under the current cost allocation, this would result in inequitable outcomes where remaining customers would pay a disproportionate share of costs. Such an outcome is particularly concerning for lower-income customers, who are less able to reduce their exposure to gas rate increases through electrification given the upfront costs. (Emphasis added.)²³

The E3 Report further notes:

Should the utilization of LDC T&D infrastructure decline as a result of electrification programs, the remaining natural gas customers, absent any regulatory policy changes, will see higher volumetric rates and customer bill impacts associated with the cost recovery of the LDCs' T&D investments...²⁴

²¹ "Targeted electrification" refers to a narrower approach to promoting electrification rather than to the broad population.

²² E3 Report, pp. 14-15.

²³ E3 Report, pp. 17-18.

²⁴ *Id.* at 44.

Data shows that lower income households and people of color must by necessity devote a greater proportion of income to maintain basic utility service.²⁵ The E3 Report specifically forecasts that low-income customers who are unable to participate in decarbonization strategies ("non-migrating customers") are likely to spend an increasingly high share of their income on energy, from approximately 5% today to over 15% in 2050,²⁶ as shown in the table below:²⁷

²⁵ ACEEE, How High Are Household Energy Burdens? An Assessment of National and Metropolitan Energy Burden across the United States (Sept. 2020), available at https://www.aceee.org/topic/energy-equity.

²⁶ E3 Report, p. 103.

²⁷ *Id.* at 102.

Upfront TCO² –non-TCO² – migrating Energy bill as % equipment & migrating Technology package customer³ of income for lowretrofit costs customer³ (\$/month) income customer5 $(\$)^1$ (\$/month) Other Deep shell appliances4 retrofit heater 20% \$462 \$383 \$462 \$383 Standard 7% gas furnace Gas \$12k 0% Ex: Reference - does not support climate targets 20% \$874 **Efficient** 10% \$427 \$383 \$26k gas furnace 0% Ex: Efficient Gas Equipment \$1,032 20% ASHP + gas 14% \$461 \$566 furnace \$16-22k Gas \$383 backup 0% Ex: Hybrid Electrification 20% 15% \$500 \$460 **ASHP** \$29-36k \$383 0% Ex: High Electrific \$931 20% 11% Networked \$458 \$383 geothermal 6 \$29k 0% Ex: Networked Geothermal 2020 2050 2020 2050 2020 2050

Figure 37. Overview of customer costs for an average, pre-1940 single family home. Gas bills are based on Eversource (NSTAR) rates.

Levelized

equipment costs

Non-migr. customer

Migrating customer, assuming subsidized equipment costs

Gas bill upper

bound

Geothermal delivery

costs (socialized)6

Electricity

bill

Gas bill

The E3 Report references the need for subsidization of low-income customers both in general and in terms of protecting against bill increases as a result of the adoption of new technologies:

Income distribution may indicate the need for LDCs to develop low income decarbonization programs that are supported by higher income customers. LDCs

¹ Includes cost of building shell upgrade (if applicable), space heating equipment, water heating equipment and cooking & clothes drying appliances. The chart shows levelized cost based on optimistic heat pump assumptions.

²TCO = Total Cost of Ownership. Includes both energy bills and levelized cost of equipment. The charts include rates for the scenario shown in *italics*. Rates are calculated as average residential rates, not reflecting specific LDC rate structures (detailed in Appendix 1).

³ A "migrating" customer is a customer adopting the technology package. A "non-migrating" customer is a customer not adopting the technology package, assuming a Single Family household with standard gas furnace. The non-migrating customer does not receive a deep shell retrofit.

^{4&#}x27;Other appliances' include: water heater, clothes dryer, and cooking. Chart does not include transportation electrification bills.

⁵ Charts show energy bill effects for low—income customers. A low income customer is defined as a 3-persons household with an income of 60% of the Massachusetts median. Low-income customers are assumed to receive a 25% discount on gas and electric bills. Chart includes energy bills only, excluding levelized equipment costs.

⁶ Note that the networked geothermal pathway only builds networked geothermal infrastructure from 2027 onwards.

with a larger proportion of higher-income customers may have more "first movers" or "early adopters" with respect to new or innovative space heating technologies.²⁸...

While access to brand-new appliances may be appealing, experience suggests that customers, particularly low-income customers, will not view targeted electrification projects as successful if their energy bills increase as a result. *Bill guarantees may be necessary to ensure that customers are not adversely affected by participation in targeted electrification.* (Emphasis added.)²⁹

No matter how the Department proceeds in terms of a roadmap to achieving the Commonwealth's clean energy goals, in this proceeding or in the future, some form of additional assistance beyond ratepayer funding through gas delivery rates will be needed to ensure that low-income customers are held harmless and not left subsidizing the cost of maintaining a gas delivery system that may increasingly become obsolete.

NCLC stands ready to lend its expertise to help develop new, supplemental affordability programs that go beyond Massachusetts utilities' existing discount rates, whether in the form of enhanced discounts, tiered discounts based on income, a more targeted examination and limiting of energy burden or other affordability programs.

B. The Department Should Not Adopt LDC-Requested Transition Plans At This Time.

1. Introduction

Uncertainties abound in the analysis of the transition to clean energy and achievement of the Commonwealth's net zero energy GHG emissions by 2050. The E3 authors predicated their conclusions for potential transition pathways on an acknowledgement of these uncertainties:

It is important to note that analyzing decarbonization pathways out to 2050 involves a multi-decade horizon that is inherently assumption-driven and uncertain across several factors, including cost, consumer behavior, technology development, deployment, and other factors discussed in this report. E3's

²⁸ E3 Report, p. 41.

²⁹ *Id.* at 71.

approach to pathway analysis captures key uncertainties by providing sensitivity analysis and ranges of costs of plausible outcomes; noting that not all uncertainty can be quantified in models. ... Decarbonization pathways are not forecasts, nor do they result in a single preferred solution. Instead, by examining multiple pathways, this type of analysis can be used to identify and compare key features of different plausible futures and their relative cost, feasibility, and risks, using the best available information today. A portfolio of measures that achieves the Commonwealth's decarbonization goals may include aspects of multiple pathways, as well as other strategies that may emerge in the coming decades. ³⁰

Because there are so many uncertainties related to the development of technologies, the cost of new, cleaner energy appliances, customer interest in switching out appliances and whether subsidies outside of utility rates will exist through legislative intervention, the Department should proceed carefully as it considers findings based on the existing record. To date, neither the E3 Report nor the LDC proposals have been subject to discovery by all parties in the case, nor have witnesses been subject to cross-examination through a contested hearing process. In this regard, the Department lacks the data and sworn evidence to assess the reasonableness of the E3 Report conclusions, and which pathways and cost recovery proposals are reasonable for the Commonwealth to adopt to achieve its clean energy goals.

What is clear from reviewing the LDC proposals is that the companies propose to shift all financial risk of the transition to customers. The uncertainties referenced in each of the LDCs proposals and the inappropriateness of adopting any specific recommendation in the plans at this juncture are highlighted below.

2. The LDCs' plans highlight the numerous uncertainties associated with the transition.

In addition to the statements about uncertainty in the E3 Report, the LDCs proposed transition plans highlight the many factors impacting costs and GHG goal achievement that remain unknown to date. While each company highlights the unique characteristics of their

³⁰ *Id.* at 27.

service territory and customer base, each proposes utilizing a three-year planning horizon for transition activities, aligned with the Commonwealth's existing energy efficiency three-year plan cycle. Each envisions continued use of the GSEP tariff to continue replacement of the gas distribution networks. And each, as noted previously, asks the Department to approve a new, ratepayer-funded Net Zero Tariff that will finance each individual LDC's transition activities.

These significant requests place all risk associated with the many unknowns in their plans on the Companies' customers. These risks include the timeline and cost impact of any acceleration of depreciation expense associated with the gas infrastructure networks; how the continued build-out of the gas delivery system under the GSEP tariff impacts the changes needed to deliver non-fossil fuels, such as renewable natural gas ("RNG") and hydrogen; the cost of proposed alternative fuel research and pilots; and how customer interest in new clean energy appliances impacts the cost of maintaining the existing gas delivery network. Highlights from each of the LDC plans follow below.

a. National Grid's Plan

National Grid boldly proclaims that it has a plan to achieve net zero GHG goals by 2050, if only the Department would approve *today* its plan to "enable adequate LDC progress toward net zero and also manage the cost to customers of the Commonwealth's energy transition" by:

- Enabling the procurement of renewable gas, including broadening the standards used to review LDC supply purchases to include non-fossil fuels such as RNG and hydrogen, and allowing for longer-term contracting to support project development;
- Accelerating recovery of depreciation expense to reduce the risk (to the company);
- Increasing energy efficiency investment and prioritizing building energy envelope improvements and adoption of heat pump technologies;
- Funding research, development, and deployment activities that further gas network decarbonization;
- Establishing frameworks to incent alternatives to gas infrastructure investment where possible; and

• Supporting and formalizing the LDC role in scaling geothermal investments.³¹

National Grid admits, "achieving high levels of electrification is going to require large-scale transformation of customer end-use and community or neighborhood scale coordination of decarbonization decisions and investments. The extent to which transformations can occur at that scale is uncertain." The shift in the financial risk to ratepayers associated with all of these uncertainties is compounded further by the LDCs' request to approve the Net Zero Tariff.

b. Eversource's Plan

In its plan, Eversource proposes that the Department embark on a plan that involves:

- Reducing energy demand and maximizing energy efficiency investments in concert with all decarbonization options
- Hybrid electrification, potential investments and promotion of customer adoption while preserving reliability, especially in markets where full electrification is challenged
- Strategic electrification that relies on clean electricity, and "leverages Eversource's comprehensive planning and execution across its gas and electric companies"
- Decarbonized gas network that focuses on the procurement of low carbon fuels (e.g., RNG, Hydrogen) and investment in its pipeline network to deliver cleaner fuel to natural gas customers, especially those where electrification is not practical.

Notwithstanding this proposal, the Company admits:

...the Pathways are long-term and high level in their nature, and a lot of work is needed to translate them into specific initiatives, programs, and projects. In turn, this "translation" of Pathways into specific activities will demand considering a range of qualitative criteria, including those involving Technology Risk and Customer Choice alignment. Gas delivery system physical attributes are also hugely important -- in fact, often dispositive for whether an initiative makes sense in a particular location. So too, will be the nature of the building stock within Eversource's service territory.³³

³¹ National Grid Plan at 5.

³² *Id.* at 36.

³³ Eversource Plan at 8.

c. Unitil's Plan

Unitil's transition Plan states that it will "build on the Consultant Report's Finding and Strategy Recommendations, together with FG&E's (Fitchburg Gas & Electric Company's) unique situation and circumstances." It presents its "Objectives and Guiding Principles" to support the Commonwealth's climate goals, which are:

- Support customers building shell retrofits and adoption and conversion to efficient electric heating technologies
- Develop programs to procure and utilize renewable and certified gas
- Develop hybrid heating system programs
- Monitor networked geothermal pilot developments and other opportunities
- Manage embedded gas infrastructure costs and
- Manage customer affordability and equity implications³⁵

The Company proposes to "monitor" the ongoing networked geothermal pilot projects being conducted by Eversource and National Grid and evaluate future opportunities to deploy the technology, noting the E3 Report's conclusion that the technology and cost underlying geothermal infrastructure is uncertain. Again, highlighting the uncertainty of the proposed gas transition solutions, including new and evolving energy technologies, the uncertain ability of Unitil's customers to adopt electrification and efficiency measures absent high levels of support, and the uncertainties inherent in long-term energy transition pathways, the Company emphasizes what it describes as "the need for supportive, efficient, and constructive regulatory solutions throughout the transition process." Stated another way, Unitil, like the other LDCs asks the Department to foist that financial risk on ratepayers through the adoption of the Net Zero Tariff.

³⁴ Unitil Plan at 38.

³⁵ *Id.* at 39.

³⁶ *Id.* at 46.

³⁷ *Id.* at 8.

d. Berkshire Gas's Plan

Berkshire's plan, like the other LDCs, offers a variety of transition activities that it states it will prioritize, assuming Department approval of the Net Zero Tariff and other future cost recovery mechanisms. The Plan includes:

- customer education "regarding the benefits and disadvantages associated with various energy options;"
- monitoring customer adoption of alternate fuels, including electrification; the "aggressive" promotion of energy efficiency;
- the exploration of several electrification options, including hybrid gas options, to start a pilot program that will allow it to seek out and contract for "differentiated gas;" and
- the incorporation of RNG, such as biomethane; and monitoring and evaluating new lowcarbon technologies.³⁸

Like the other LDCs, Berkshire appears to envision a permanent role for LDCs in the transition to clean energy. Berkshire acknowledges, "The exact timing and approach to decarbonization is uncertain."39

Liberty's Plan e.

Liberty's Plan, like the other LDCs, envisions a long-term role for gas utility in the Commonwealth's clean energy plans. Liberty states that its plan will include (i) decarbonizing the fuel mix with renewable gas, including biomethane (RNG), hydrogen, and synthetic natural gas, (ii) gas energy efficiency, (iii) building electrification through hybrid heating systems utilizing electricity, natural gas, and renewable gas to meet the energy demand of Liberty's customers, (iv) customer engagement and education, (v) workforce development and (vi) the potential for networked geothermal.⁴⁰

Liberty's Plan highlights the need to retain flexibility, and "leveraging the value of the natural gas system to minimize cost and load impacts of heating electrification on the electric

³⁹ *Id.* at 10.

³⁸ Berkshire Gas Plan at 12-14.

⁴⁰ Liberty Plan at 13.

system."⁴¹ Liberty characterizes the consultants' proposed pathways as "intended to showcase and contrast distinct approaches to reaching emission reduction targets and did not attempt to develop an 'optimized' pathway."⁴² The Plan adopts "the fundamental design of the Hybrid Electrification pathway converting customers from primary gas heating to air source heat pumps with gas supplemental heating." It notes that it included a lower penetration rate of hybrid gaselectric heating within the Plan than was featured in the Consultant Report's Hybrid Electrification pathway. Liberty's Plan also includes incorporating efficient gas appliances, gas heat pumps, building shell upgrades, and "other (gas) energy efficiency measures" as part of the transition.⁴³

* * * *

All of the aforementioned plans assume a continuous role for natural gas delivery companies into the future, an acknowledgement of uncertainties associated with every pathway referenced in the E3 report and a desire to avoid financial risk through Department adoption of the proposed Net Zero Tariff.

The various uncertainties highlighted in the E3 report as the LDCs' own filed plans reveal all support rejection of the Net Zero Tariff and other requested cost recovery in this proceeding. , LDC responses filed to date to DPU Staff data requests likewise support DPU denial of the proposed cost-recovery plan. A sampling of the responses is provided below.

3. LDC Responses to DPU Staff Data Requests

The uncertainty inherent in the LDCs' proposals and the various pathways proposed by the E3 consultants is highlighted in the responses to DPU Staff's data requests submitted to date

⁴² *Id*.

⁴¹ *Id*.

⁴³ *Id*.

in this proceeding. Discovery in the case, permitted only by DPU Staff, will continue through mid-June.

Both the consultants and the LDCs acknowledge that the level of electrification adopted by gas utility customers will be impacted by many factors, including cost, and remains an uncertainty for the LDCs. For example, in response to Information Request DPU-Comm 4-1, which asked the LDCs to "discuss the criteria that LDCs should apply in determining that geographically targeted electrification is a cost-effective solution for a group of gas customers," the LDCs responded:

At this time, the LDCs have not developed definitive criteria that should apply in determining that geographically targeted electrification is a cost-effective solution for a group of gas customers.⁴⁴

Other responses that highlight many of the uncertainties inherent in the transition include this response from National Grid to the DPU Staff's request to define "the short term" in the Company's statement that "the recovery of LDC depreciation expenses will lead to short-term increases in customer bills:"

The Company's statement was intended to reflect that modifications to depreciation schedules to advance recovery of depreciation expense will, all else equal, increase distribution rates in the near term while lowering distribution rates in the longer term. The specific year in which customer bills see distribution rate reductions relative to current depreciation schedule will depend upon the specific depreciation schedule that is implemented. Given this, the Company has not specifically defined "short term."⁴⁵

In a response to DPU Staff's request to provide examples of potential broader sources of funding beyond gas utility rates paid by LDC customers, the LDCs expressed uncertainty but nevertheless highlighted the need for such additional funding:

⁴⁴ Information Request DPU-Comm 4-1, Response of LDCs, April 28, 2022.

⁴⁵ Information Request DPU National Grid 1-2, Response of National Grid, April 28, 2022.

...residential unit cost increases in each decarbonization pathway are extraordinary and well beyond the scale and scope of traditional LDC cost recovery mechanisms. For example, High Electrification shows an increase in residential unit costs for those customers who remain on the gas system from \$1.30 per therm in 2020 (\$2020) to \$10.60 per therm (\$2020) in 2050, or a CAGR⁴⁶ of close to 7.00 percent.

The unit cost increases are attributable to two sets of costs: higher delivery costs and higher commodity costs. Higher delivery costs are largely related to customers departing from the gas system, leaving behind uncollected embedded gas infrastructure costs. Higher commodity costs are largely related to the higher cost of renewable gas in the gas system.

The higher delivery costs and higher commodity costs are primary subsets of a broader group of transition costs related to the Commonwealth's achievement of its climate goals. Other transition costs include: (1) cost associated with restructuring or realignment of gas supply portfolios, including the cost of restructuring supply, storage, and pipeline agreements; (2) workforce transition costs; and (3) other costs associated with the design and implementation of the regulatory designs described in the Regulatory Designs Report, including geographically targeted electrification, non-pipeline solutions, coordinated planning efforts between electric and gas utilities and accelerated depreciation.⁴⁷

In a response that highlights the uncertainties gas utility customers face in paying for a gas delivery system that more and more customers may be abandoning, the LDCs stated:

Forecasting with accuracy the expected utilization of the gas system under the decarbonization pathways is a significant challenge. The LDCs have extensive historical experience in forecasting demand requirements with accuracy for their Forecast and Supply Plan (F&SP) filings. However, the decarbonization pathways introduce significant uncertainty in developing future forecasts. The LDCs' historical experience in forecasting demand requirements is based on econometric models that establish relationships between customer demands and economic and demographic data, such as population, housing starts, and the relative price of gas and heating oil. However, future LDC demand forecasts will need to incorporate the observed impacts of initiatives that support the Commonwealth's achievement of its climate goals, including the actual pace of customer adoption of electrification measures as well as policy changes, such as incentives to install electric and dual heating technologies and/or limitations on the use of gas (e.g., networked geothermal and targeted electrification). The potential policy changes, the uncertainty of customer adoption of electrification measures, and the need to pilot technologies (e.g., networked geothermal) creates significant uncertainty regarding customer use over the long term and results in greater demand forecast uncertainty.⁴⁸

⁴⁷ Information Request DPU Comm 3-3, Response of LDCs, April 15, 2022:

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⁴⁶ "CAGR" refers to compound annual growth rate.

⁴⁸ Information Request DPU Comm 3-7, Response of LDCs, April 15, 2022:

Although information gathering will need to continue as a part of this investigation, several themes have emerged from the E3 Report, the LDC plans and the discovery responses filed to date:

- The impacts on short-term and long-term affordability differ significantly among the different scenarios, but both short- and long-term economic impacts must be considered.
- Continued investment in the gas system risks adding to the financial burden of those residential customers who will be the last to "migrate" or transition away from gas.
- Investment in speculative technologies such as hydrogen or gas that is manufactured from biomass or other sources similarly risks burdening consumers with the costs of continued gas infrastructure investment and places the financial gamble of these technologies on consumers.

Based on the analysis by the consultants, the pathways that take a planned approach to gas decommissioning in stages, including "Targeted Electrification" and "Networked Geothermal," appear to better address affordability concerns in both the short- and long- terms, particularly if low-income customers receive financial support to transition to these alternatives and the needed building shell improvements.⁴⁹

Conversely, the scenario with the least expensive short-term impact but the highest long-term affordability impact appears to be the "Efficient Gas System" scenario. This scenario plans for low levels of investment in building electrification and no development of networked geothermal heat. There is a risk that this scenario would merely delay and exacerbate affordability problems and would leave both migrating and non-migrating low-income consumers in a worse financial situation over the coming decades.⁵⁰

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⁴⁹ See, Energy+Environmental Economics & Scott Madden Management Consultants, *The Role of Gas Distribution Companies in Achieving the Commonwealth's Climate Goals, Independent Consultant Report, Technical Analysis of Decarbonization Pathways* at Text Box 1, page 56; Fig. 22, page 62; page 70; Fig. 37, page 102.

⁵⁰ *Id.* at Fig. 37, page 102.

Whichever clean energy pathways are ultimately developed and chosen, the Department should consider that the General Court, too, may play a role in protecting affordability through legislation, particularly to support customers with the lowest incomes who cannot afford to transition to alternative sources of heat without financial assistance and who, absent public assistance, are likely to be left subsidizing stranded natural gas infrastructure investment. More public funding will be needed, as expenses associated with this transition will be too great to allocate through essential utility service rates. This is yet another reason to reject the LDCs proposal for the Department to approve the Net Zero Plan Tariff, which inappropriately places incremental funding responsibility on gas company ratepayers.

Both the Plans and the E3 Report point to the need to prioritize additional financial support for those least able to afford home energy efficiency upgrades and new air source heat pumps or other electric home heating systems. As noted earlier in these Comments, low-income consumers are already struggling and cannot be asked to take on even more debt to carry out this transition. For all of these reasons, the Department should not approve any of the LDCs' or E3 Report's plans or pathways at this point. It should address these questions only after further development of the record, which should include a thorough evaluation of ways to provide the financial support that low-income customers will need in order to transition away from natural gas.

C. The Transition to a 2050 Net Zero Statewide Emissions Limit Will Require Integrated Gas and Electric System Planning, Not Contemplated in This Investigation.

The E3 Report concludes that several "low-regret" decarbonization technologies can be used across various decarbonization scenarios, despite long-term uncertainty on the direction of achieving net zero GHG goals. They include:

- Energy efficiency through building shell retrofits and energy-efficient equipment, especially for all-electric buildings or buildings using large amounts of renewable gases. Energy efficiency measures decrease the impacts of electrification on the electricity system and reduce demands for expensive and currently non-commercialized renewable gases.
- Building electrification, where feasible, including strategies for all-electric residential new construction and hybrid electrification strategies in existing buildings.
 - Biomethane from wastes and residues, including from landfill gases.
 - Renewable electricity.⁵¹

But all scenarios require a substantial transformation of the electric sector, according to the authors, including doubling or tripling current generation capacity to deploy more renewable resources to reach net zero emissions, regardless of the level of electrification pursued. These scenarios envision "the installation of thousands of megawatts of new offshore and onshore wind, utility-scale and distributed solar and new transmission to deliver renewables to the Commonwealth."⁵²

Regardless of the accuracy of the E3 Report's recommendations, common sense suggests that a future grid that includes the increased installation of electric air source heat pumps as part of the Commonwealth's decarbonization strategy will require an assessment of electric grid planning, in addition to gas delivery assessments. Any finding issued in this investigation should include the initiation of integrated electric and gas system planning going forward.

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⁵¹ E3 Report at 18.

 $^{^{52}}$ *Id*.

D. The Need For the GSEP Tariff Should be Re-evaluated, Either As a Part of This Proceeding or in A New Investigation.

One of the issues critical to assessing how an equitable transition away from natural gas should occur is to acknowledge the inconsistency of a state energy policy that, on the one hand, has adopted specific clean energy goals that require the state to move away from carbon dioxide and methane-producing energy sources, and on the other, retains a statutory rate structure that specifically permits natural gas utilities to continue to build out and replace infrastructure at a pace that is, in some instances, unparalleled.

The General Court passed "An Act Relative to Gas Leaks Act" in 2014, which created the GSEP surcharge tariff, and allows a broad definition of permitted infrastructure to be included in the special rate recovery category. The GSEP tariff defines "eligible infrastructure replacement" as a replacement or an improvement of existing infrastructure of a gas company that: (1) is made on or after January 1, 2015; (2) is designed to improve public safety or infrastructure reliability; (3) does not increase the revenue of a gas company by connecting an improvement for a principal purpose of serving new customers; (4) reduces, or has the potential to reduce, lost and unaccounted for natural gas through a reduction in natural gas system leaks; and (5) is not included in the current rate base of the gas company as determined in the gas company's most recent rate proceeding. ⁵³ In a nutshell, the GSEP tariff allows for the replacement of mains, services, meter sets, and other ancillary facilities composed of non-cathodically protected steel, cast iron, and wrought iron to be financed through the monthly surcharge – essentially any new investment not associated with serving new customers.

⁵³ Mass Gen .Laws ch. 164, §144(f).

Under the existing GSEP tariff, LDCs are allowed cost recovery through a special surcharge in an amount up to 1.5% of the company's revenues. Each gas utility in the state has filed a multi-decade plan to continue the infrastructure replacement through the GSEP tariff.⁵⁴ Under rate of return regulation, as the LDCs rate base grows, so too do increased profits and the overall revenue requirement. Accordingly, utilities have a financial interest in increasing investment in delivery service infrastructure.

The continuation of GSEP without both the General Court's and the Department's reevaluation in light of the Commonwealth's clean energy goals comes with a cost. According to
the October 2021 report issued by the Gas Leaks Allies group, *GSEP at the Six-Year Mark*, the
total cost of GSEP plans is likely to top \$20 billion, a cost, the author notes, that rivals the scale
of the Big Dig.⁵⁵ Given the Commonwealth net zero by 2050 GHG goals, the question arises as
to why ratepayers are required to continue to fund these substantial gas delivery projects when it
is unclear if the infrastructure being installed is both necessary given the transitions
contemplated in the E3 Report and the LDC plans, or appropriate, given the likelihood of some
level of increased electrification in the Commonwealth.

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⁵⁴ Specifically:

[•] National Grid filed a 20-year plan to replace a total of 3,634 miles of cast iron, wrought iron, and unprotected steel mains and 129,971 unprotected steel services (D.P.U. 14-131)

Berkshire Gas filed a 20-year plan to replace a total of 109 miles of cast iron and unprotected steel mains (D.P.U. 14-132)

[•] Liberty Utilities filed a 20-year plan to replace a total of 230 miles of leak-prone main and 13,711 unprotected steel services (D.P.U. 14-133)

Bay State Gas Company filed a 20-year plan to replace a total of 1,023 miles of cast iron, wrought iron, and unprotected steel mains and approximately 50,000 leak-prone services (D.P.U. 14-134)

NSTAR Gas Company filed a 25-year plan to replace eligible infrastructure, which consists of approximately 745 miles of non-cathodically protected steel and wrought iron mains, approximately 388 miles of cast iron mains, and services, meter sets, and other ancillary facilities (D.P.U. 14-135)

⁵⁵ GSEP at the Six Year Mark – A Review of the Massachusetts Gas System Enhancement Program, D. Seavey, PhD, October 2021, p. 8.

https://static1.squarespace.com/static/612638ab5e31f66d7ae8f810/t/61561b8c4955b93159a753a3/1633033102069/GSEPatTheSix-YearMark.pdf

As noted by the E3 Report authors, the GSEP upgrades will increase the cost of the gas system and LDC revenue requirements over the coming decade.⁵⁶ As customers depart from the gas system in scenarios with high levels of electrification and customer migration, the costs for remaining customers will increase – likely to impractical levels.

Given the Department's prior ruling that a re-examination of the GSEP tariff is not a part of this proceeding, the DPU should either reconsider that finding or immediately open a new proceeding that evaluates the need for this cost recovery mechanism in light of both the information submitted to date in this proceeding and the Commonwealth's GHG reduction goals.

E. The LDCs Joint Request for Approval of a Net Zero Cost Recovery Tariff and Other New Cost Recovery Changes Should Be Denied.

In a 42-page joint filing with the Department that accompanied the filing of the E3 Report, the LDCs request that the Department approve a "Net Zero Enablement Plan Model Tariff" ("Net Zero Tariff") that would "allow the LDCs to institute and continue decarbonization and electrification efforts ... that will advance over time" as well as authorization for "a framework for recovery of costs of renewable gas through the respective Cost of Gas Adjustment Clause ("CGA") tariffs."⁵⁷ This premature and unsupported request to require gas company ratepayers to foot the bill for undefined and currently unknown gas and clean energy transition costs would effectively place all of the financial risk associated with the transition to net zero GHG emissions on ratepayers, and should be denied.

Under the LDCs regulatory proposal, the LDCs would:

(1) propose to file Net Zero Enablement Plans on a 3-year cycle, to align with 3-year energy efficiency cycle, using a 5 and 10-year planning horizon to allow for

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⁵⁶ E3 Report at pp. 14-15.

⁵⁷ "Common Regulator Framework and Overview of Net Zero Enablement Plans," filed jointly on March 18, 2022, by Eversource, Berkshire Gas, National Grid, Unitil and Liberty.

review, evaluation of progress, plan updates and proposed modifications to the LDC Net Zero Enablement Plan.

- (2) demonstrate evaluation of non-pipeline alternatives to mitigate the need for incremental investments in gas infrastructure, as applicable.
- (3) provide data to inform decision making during the transition.
- (4) provide periodic updates regarding progress towards addressing transition issues, including EJ issues.
- (5) implement other enabling proposals under consideration by LDCs.⁵⁸

The LDCs further propose that the Department review their respective initial and future three-year transition plans Net Zero Enablement Plans pursuant to the following standard of review:

The LDC's transition portfolio is reasonably designed to contribute to the reduction of GHG emissions to meet net zero emissions by 2050, without compromising the safety, reliability and affordability of service offered to current customers.

The "reasonably designed to contribute to the reduction of GHG emissions" standard is woefully insufficient to protect ratepayers who would be funding transition activities. The standard, for example, requires nothing in terms of an assessment of the costs and benefits of any planned transition action.

Under the proposed Net Zero Tariff, in order to be eligible for cost recovery, an LDC's Plan costs must be:

- (1) incurred within in the scope of project categories authorized by the Model Tariff in furtherance of the LDC's Department-approved Net Zero Enablement Plan, in effect from time to time;
- (2) incremental to the LDC's current investment projects or associated with the implementation of new types of technology;
- (3) incremental to costs that the LDC currently recovers through base distribution rates for operation and maintenance ("O&M") expenses;
- (4) exclusively attributable to enabling Net Zero investments; and
- (5) recorded as in-service by December 31 of each NZEP Investment Year.⁵⁹

⁵⁸ LDCs Net Zero Regulatory Proposal, p. 18.

⁵⁹ *Id.* at 19.

The Model Tariff would provide cost recovery for various decarbonization activities proposed by an LDC including, but not limited to: (i) air source heat pumps (to the extent not funded through EE Plans) (ii) efficient gas equipment (iii) hybrid heating systems (iv) hydrogen blending interconnections and installations (v) networked geothermal pilots/programs (vi) renewable gas blending interconnections or installations and (vii) other projects, initiatives, or strategies as proposed by the LDC. In addition, the Model Tariff authorizes cost recovery for a wide variety of expenses, including administration of the transition proposals, data collection, workforce development, customer education, potential customer incentives and reports on an LDC's progress toward the Commonwealth's decarbonization goals.⁶⁰

Other factors support denial of the LDCs' cost recovery request. Like the GSEP tariff, the proposed Net Zero Tariff, which authorizes LDC transition investment and spending and presumes in advance that it is prudent and reasonable, would shift the burden of identifying imprudent investment and unreasonable spending squarely on the shoulders of Department staff and intervenors. The tariff significantly expands recoverable operational costs through what appears to be a volumetric charge for each customer, in addition to a return of and on investment, similar to the GSEP Tariff. For these reasons, too, the proposed tariff and cost recovery scheme should be rejected.

In addition to the Net Zero Tariff, the LDCs also seek Department approval of a procurement strategy to add renewable gas supply to the resource portfolio, pointing to the E3 Report recommendations to blend amounts of renewable gases into the gas delivery system in order to reduce GHG emissions. This strategy would include investigating the deliverability of

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⁶⁰ *Id.* Indeed, given this expansive list of proposed recoverable expense and investment items, the tariff arguably could be called the "everything-but-the-kitchen-sink" ("EBKS") tariff.

biomethane, hydrogen and synthetic gases from a broader range of sources and regions. ⁶¹ The LDCs note that, presently, renewable gas does not meet the Department's "least cost" supply planning standards if the Department were to focus solely on the cost of renewable gas as compared to alternative commodity options. As such, the LDCs would have the Department approve procurement of renewable gas even if the procurement is not the least cost commodity option. ⁶² The LDCs also ask that the Department review future long-term contracts that include the procurement of renewable gas by including the potential decarbonization benefits of renewable gas as a non-price factor to be balanced with other non-price factors, and price considerations. ⁶³

This request to alter the least cost standard of gas procurement promises to add additional costs to the monthly gas bill without clear standards as to how benefits would be assessed, and without a clear understanding of the costs of "biomethane, hydrogen and synthetic gases from a broader range of sources and regions."⁶⁴

While the LDCs acknowledge the need for low-income customer protections in light of the costs of migrating from the gas system or, alternatively, remaining on a gas system with a shrinking customer base, the LDC cost recovery proposal (including the Net Zero Tariff) offers no insight on how low-income customers would be protected from paying for the new costs collected through the proposed Tariff and altered least cost gas standard. For these reasons, too, the LDCs cost recovery proposals should be rejected.

III. CONCLUSION

In accordance with the arguments presented above, we urge the Department to:

⁶¹ *Id.* at 20.

⁶² *Id*.

 $^{^{63}}$ Id

⁶⁴ Id

- (1) ensure that low-income customers, who are unlikely to be able to afford the switch to clean energy appliances and migrate away from the gas utility system, are held harmless from increased utility costs associated with the transition to cleaner energy;
- (2) refrain from adopting any particular pathway recommended by the LDCs and their consultants at this time, given the significant and multi-faceted uncertainty surrounding technology development, costs of new fuels, customer adoption rates of new clean energy appliances, and whether the General Court and/or federal government will provide assistance outside of ratepayer funding to reduce transition costs;
- (3) instead initiate a least-cost GHG-reduction planning process, integrated with electric grid planning, to evaluate needed infrastructure changes and fuel procurement;
- (4) re-evaluate the necessity of the existing Gas System Enhancement Plan ("GSEP") tariff, which adds significant costs each month and for the foreseeable future to gas customer bills; and
- (5) reject the Local Distribution Companies' ⁶⁵ requested approval of a new Net Zero Enablement Plan Model Tariff ("Net Zero Tariff"), and other cost recovery proposals (in addition to the GSEP), which would enable unlimited spending on vaguely identified "transition costs" and place all financial risk associated with the transition to clean energy on ratepayers.

Dated: May 6, 2022

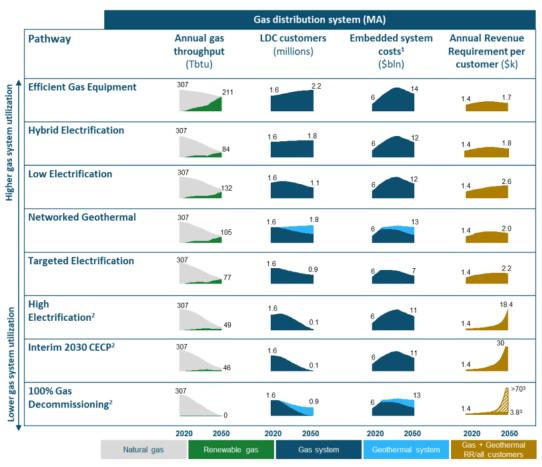
Very truly yours,

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⁶⁵ The LDCs consist of The Berkshire Gas Company, Eversource Gas Company of Massachusetts and NSTAR Gas Company each d/b/a Eversource Energy, Fitchburg Gas and Electric Light Company d/b/a Unitil, Liberty Utilities (New England Natural Gas Company) Corp. d/b/a Liberty, and Boston Gas Company d/b/a National Grid.

Figure 3. Transformations in the gas system by pathway (\$2020, 2020 – 2050).



¹Expressed as gas plus geothermal system rate base assuming optimistic cost reductions & optimistic geothermal costs.

²Scenarios with lowest gas system utilization bear the risk of ending up with embedded system costs that can no longer be recovered.

³100% Decommissioning pathway shows Revenue Requirement if costs are shared over all geothermal customers (bottom), versus if costs are shared over gas customers only (top).