

VIA ELECTRONIC MAIL

Massachusetts Department of Public Utilities
Attn: Hearing Officer Jennifer Cargill

April 2, 2025

Written Comments of Rewiring America, Acadia Center, Sierra Club, Environmental Defense Fund, Gas Transition Allies, Brookline Mothers Out Front, HEETlabs, Green Energy Consumers Alliance, ZeroCarbonMA, Vote Solar, Pipe Line Awareness Network for the Northeast, Inc, and the Environmental League Of Massachusetts in Response to the Department of Public Utilities Request for Comments Regarding the Draft Policy and Practices for Proposed Line Extension Allowances and Contributions in Aid of Construction for Gas Local Distribution Companies, D.P.U. 20-80.

Dear Ms. Cargill:

Thank you for allowing us the opportunity to provide comments on the draft policy for line extension allowances as a part of D.P.U. Docket 20-80, issued February 5, 2025.

Rewiring America and Acadia Center authored the following comments regarding the draft policy proposal with feedback and support from Sierra Club, Environmental Defense Fund, Gas Transition Allies, Brookline Mothers Out Front, HEETlabs, Green Energy Consumers Alliance, ZeroCarbonMA, Vote Solar, Pipe Line Awareness Network for the Northeast, Inc., and Environmental League Of Massachusetts.

Rewiring America is a leading electrification nonprofit, focused on electrifying our homes, businesses, and communities. We develop accessible, actionable data and tools, and build coalitions and partnerships to make electrification easier for everyone. Rewiring America helps Americans save money, tackle state emissions goals, improve health, and build the next generation of the clean energy workforce. We believe in an abundant, flourishing, climate-safe future, and know that, together, we can realize one.

Acadia Center is a non-profit research and advocacy organization that works to advance bold, effective, and equitable clean energy solutions in Massachusetts and other Northeast states. Grounded in impactful data analysis and inclusive partnerships and collaboration, we fight for economic and environmental policies that will have the greatest impact on carbon emissions in our region.

The organizations signed on to this letter strongly approve of the Massachusetts Department of Public Utilities ("D.P.U.") taking action to end line extension allowances

through the Draft Policy and Practices for Proposed Line Extension Allowances and Contributions in Aid of Construction for Gas Local Distribution Companies (“LEA policy”). The current LEA policy conflicts with the Commonwealth’s climate and decarbonization goals by encouraging new gas service, subsidizing gas system expansion, and locking in long-term capital investments in polluting gas infrastructure. As Massachusetts transitions to a more efficient and electrified future, the economic justification for LEAs is no longer valid. Continuing reliance on LEAs imposes increasing and unacceptable financial risk on customers, leading to higher gas rates and a greater energy burden for vulnerable energy users. Below, we detail the rationale for our support and outline recommendations to address outstanding details and further refine the policy.

Summary of Comments and Recommendations

Supportive Comments:

1. *The draft LEA policy is necessary to align state investments with climate targets*
2. *The draft LEA policy is responsive to market trends and will help protect customers from often unnecessary and increasingly risky investments in the gas system*

Recommendations:

1. *Amend the draft LEA policy to make it explicit that D.P.U. will only consider LEA exceptions on a case-by-case basis, and only if they meet all criteria*
2. *Outline a comprehensive assessment process in their LEA policy*
3. *The LEA policy’s implementation timeline should be swift and the implementation should occur all at once rather than in phases*
4. *Perform additional analysis to quantify equity, labor, and employment impacts that could result from the implementation of the LEA policy*

Supportive Comments

The organizations signed on to this letter largely support the direction of the LEA policy and believe that a well-developed LEA policy will help Massachusetts reach its climate goals while saving existing gas ratepayers money.

The draft LEA policy is necessary to align state investments with climate targets:

The D.P.U.'s LEA policy takes important steps toward aligning utility and ratepayer investments with the state's climate targets. In March of 2021, the governor of Massachusetts signed into law the "Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy" that sets greenhouse gas ("GHG") reduction requirements (from 1990 baseline levels) of 50% by 2030, 75% by 2040, and net-zero emissions by 2050.¹ The law also required the Secretary of Energy and Environmental Affairs to establish sector-based statewide GHG emissions sub-limits. The Clean Energy and Climate Plan for 2025 and 2030 (2025/2030 CECP)² and the Clean Energy and Climate Plan for 2050 (2050 CECP)³ established these legally binding sector-specific GHG sub-limits for the Residential Heating and Cooling and Commercial and Industrial Heating and Cooling Subsectors for 2025, 2030, and 2050. Figures 1 and 2 below highlight the dramatic and rapid GHG emission reductions required in the building sector to comply with the sub-limits.⁴

¹"AN ACT CREATING A NEXT-GENERATION ROADMAP FOR MASSACHUSETTS CLIMATE POLICY", Mar. 2021, <https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8>

² Massachusetts Clean Energy and Climate Plan for 2025 and 2030, Table 3.1, page 23 <https://www.mass.gov/doc/clean-energy-and-climate-plan-for-2025-and-2030/download>

³ Massachusetts Clean Energy and Climate Plan for 2050, Table ES-1, page xii <https://www.mass.gov/doc/2050-clean-energy-and-climate-plan/download>

⁴ Figures 1 and 2 utilize historic sector-specific GHG emissions data from "Appendix C: Massachusetts Annual Greenhouse Gas Emissions Inventory: 1990-202, with Partial 202 & 2023 Data" <https://www.mass.gov/lists/massdep-emissions-inventories>

Figure 1. Massachusetts Historic Res. & Comm./Ind. Heating & Cooling Emissions vs. 2025, 2030, and 2050 Sublimit Targets

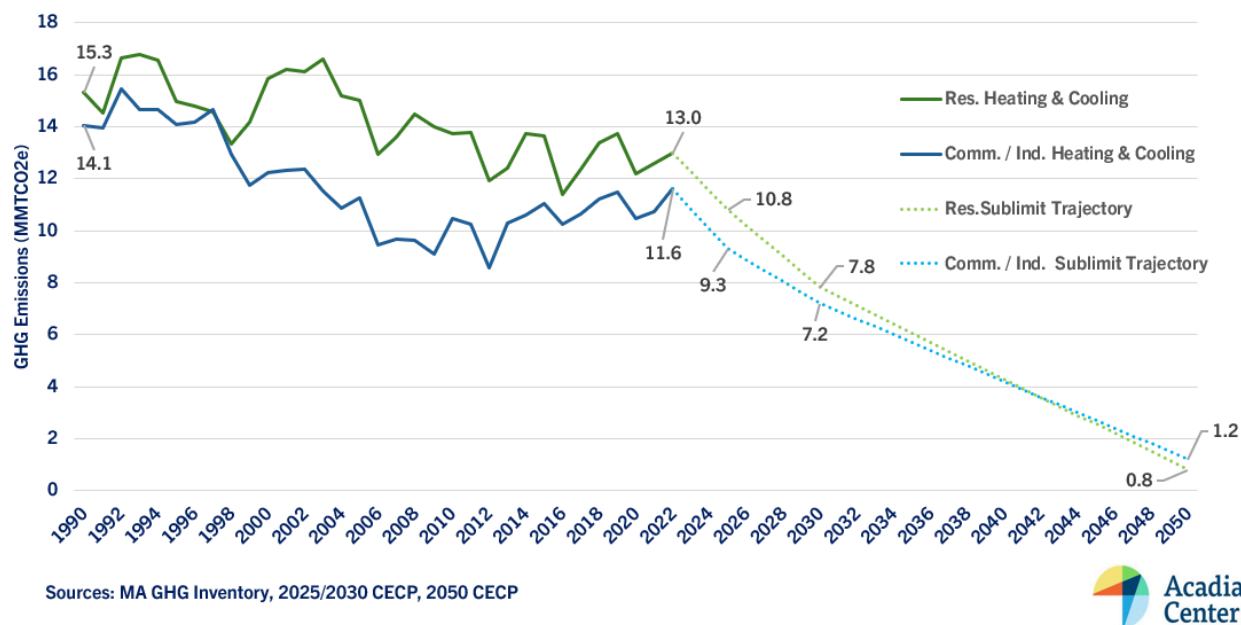


Figure 2. Percent Reduction in Emissions Relative to 2022 Needed to Achieve 2025, 2030, and 2050 Subsector GHG Emission Limits			
	2025	2030	2050
Res. Heating & Cooling	-17%	-40%	-94%
Comm. / Ind. Heating & Cooling	-20%	-38%	-90%

Achieving these subsector targets will not be possible without a significant and rapid decrease in the amount of natural gas used to heat buildings in the Commonwealth. Relative to 2022 GHG emission levels (the most recent year for which data is available in the state GHG Inventory), GHG emissions in the Residential Heating and Cooling Subsector will need to decrease 40% by 2030, while emissions in the Commercial and Industrial Heating and Cooling Subsector will need to decrease 38% by 2030. An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy requires D.P.U. to prioritize emissions reductions in its decision-making among its existing priorities of safety, affordability, and reliability. To cost-effectively achieve these targets, Massachusetts lawmakers and public leaders have clearly stated the importance and value of diverting risky investments in the natural gas system to beneficial electrification. The Massachusetts Commission on Clean Heat explicitly stated in their November 2022 report that, “investments that would support new or increased natural gas infrastructure or capacity should instead be deployed to advance measures that help support the net

zero future.”⁵ Furthermore, in the 2050 CECP, the Secretary of the Executive Office of Energy and Environmental Affairs established its Target 2050 Climate Goals outlining the need to examine the strategic decommissioning of gas infrastructure and simultaneously accelerate the adoption of electrification technologies.⁶ The D.P.U.’s draft LEA policy would support the state’s decarbonization planning efforts by largely eliminating an outdated and counterproductive subsidy— paid for by existing customers—to expand the state’s gas network. This move would help to mitigate increasingly risky investments in the gas system and instead allow Massachusetts to focus on redirecting resources towards advancing decarbonization of homes and businesses through weatherization paired with electrification of end-use appliances, leveraging technologies including air-source and ground-source heat pumps.

The draft LEA policy is responsive to market trends and will protect customers from bearing the cost of unnecessary and increasingly risky investments in the gas system:

The D.P.U.’s draft LEA policy is also a vital consumer protection measure that shields existing customers from increasing and unacceptable financial risk related to gas system expansion. Ending line extension subsidies helps keep gas rates affordable and avoids burdening existing gas customers with any costs resulting from revenue under-recovery from new customers. Continued adoption of electric end-use technologies, partially driven by state programs and partially driven by consumer preference, will put downward pressure on gas demand in the coming years. This customer preference for electric heating is revealed by national sales figures that show heat pumps outselling gas furnaces in each year, and by increasing margins, between 2022 and 2024.⁷ Customer- and LDC-funded energy efficiency projects, such as building envelope projects, will continue to reduce gas consumption for those customers that remain on the gas system.⁸

Declining gas throughput and service terminations resulting from customer electrification and energy efficiency, coupled with increasing investments in the gas system, will lead to increasing costs for existing gas customers. By curtailing the cross-subsidization of current allowances, the LEA policy helps ensure that new customers pay the full cost of line extensions and protects existing customers from often

⁵ “*Final Report*” Massachusetts Commission on Clean Heat, Nov. 2022, <https://www.mass.gov/doc/massachusetts-commission-on-clean-heat-final-report-november-30-2022/download>

⁶ “*Clean Energy and Climate Plan for 2050*” Massachusetts Executive Office of Energy and Environmental Affairs, Dec. 2022, <https://www.mass.gov/doc/2050-clean-energy-and-climate-plan/download>.

⁷ Takemura, Alison. “Heat pumps outsold gas furnaces by their biggest-ever margin in 2024”. Canary Media, Feb. 2025.

⁸ In 2023, the Mass Save gas energy efficiency programs supported 28,700 residential building envelope projects, yielding 7,051,131 therms of energy savings. <https://viewer.dnv.com/MACustomerProfile>

unnecessary and increasingly risky investments in infrastructure that are incompatible with both the state's near-term and long-term climate targets and growing customer preference for electric heat pumps.

The draft LEA policy helps to address the currently unaccounted-for risk of socializing the costs of expanding a gas network that is trending towards lower consumption. Business as usual LEAs will fail to achieve their original state purpose of lowering overall system costs as gas system throughput declines.⁹ Reviewing the Local Distribution Companies' (LDCs) Revenue Decoupling Adjustment Factor, the number of new customers connecting to the gas system have decreased between 2017 and 2023, and new customers' average consumption of gas is lower than that of existing customers.¹⁰ There are numerous indications that Massachusetts will have decreased gas usage in the near- and long-term. According to Groundwork Data's *Pipeline Extension Allowances and the Future of Gas in Massachusetts* report:

1. The Mass Save program has noted a dramatic increase in heat pump installations among existing residential gas customers, with 12,556 gas customers installing a full displacement system and 10,502 customers installing a partial displacement system in 2023 alone.¹¹
2. All-electric new construction has seen a dramatic rise, partially due to building codes, and in particular, stretch and specialized codes adopted in high-population municipalities. In the first quarter of 2024, 64% of newly constructed homes that received Mass Save incentives relied on electricity as their primary form of heat.¹²

Centering cost transparency and consumer protection is of the utmost importance as D.P.U. modernizes its planning and investment processes. The financial burden of line extensions has escalated substantially in recent years in Massachusetts. According to Groundwork Data's analysis, from 2018 to 2023, approximately 80% of new service-only connections were extended to customers at no direct cost.¹³ In 2023, the average expense for adding a new customer to the gas distribution network reached \$9,000, resulting in a cumulative investment of over \$160 million across Massachusetts' Local Distribution Companies (LDCs).¹⁴ The analysis indicates between 2020-2021 and 2022-2023, there was a 50% increase in new customer acquisition costs, attributed

⁹ Pipeline Extension Allowances and the Future of Gas in Massachusetts, Groundwork Data, 2024, prepared for Conservation Law Foundation, Environmental Defense Fund, and Sierra Club, available at: <https://static1.squarespace.com/static/62e94d16a77e1e191eafe4ae/t/6705d07c5d540a70291f0401/1728434301700/20-80GWDLLineExtensionComment071024rev1.pdf>

¹⁰ Ibid, page 24.

¹¹ Ibid, page 13.

¹² Ibid, page 12.

¹³ Ibid, page 16.

¹⁴ Ibid, page 1.

primarily to increasing labor and material expenses. This trend highlights the growing economic challenges faced by gas distribution companies in expanding their customer base while managing infrastructure investment costs.¹⁵

Many states have already limited subsidization of gas line extensions, including California, Colorado, Oregon, and Washington. Each state anticipates that curtailing LEAs will result in positive monetary impacts for its utility customer base. For example, the state of California, across all of its LDCs, is expecting annual savings of over \$160 million from eliminating gas line subsidies.¹⁶ The D.P.U.'s proposed LEA policy will have a direct positive impact on customer bills, and customers will continue to reap these benefits over the long term as the state prioritizes electrification and climate-friendly solutions, mitigating the risk that current customers will be forced to bear the cost of additional unused assets in 20-30 years.

Recommendations

Amend the proposed draft LEA policy to make it explicit that the D.P.U. will only consider LEA exceptions on a case-by-case basis, and only if they meet all criteria:

We broadly support D.P.U.'s proposed exception framework, with the understanding that LEA exceptions should be very rare and project-specific. Our recommendations below highlight necessary considerations to strengthen the existing criteria. Further work is needed to flesh out definitions, implementation timeline, review process, and methodology for determining LEA exceptions. We therefore request that the D.P.U. convene a working group and/or technical conference to determine appropriate details.

The draft policies establish a general restriction of LEAs unless the LDC demonstrates that the project meets each of the three exception criteria.¹⁷ This framework establishes a default presumption that line extension costs must be borne entirely by the new customer and that the LDC bears the burden of establishing that the LEA exception criteria are met. The organizations signed on to this letter support an approach of LEAs being the exception rather than the norm.

¹⁵ Ibid, page 19.

¹⁶ "PROPOSED DECISION OF COMMISSIONER RECHTSCHAFFEN", Page 15, PHASE III DECISION ELIMINATING GAS LINE EXTENSION ALLOWANCES, TEN-YEAR REFUNDABLE PAYMENT OPTION, AND FIFTY PERCENT DISCOUNT PAYMENT OPTION UNDER GAS LINE EXTENSION RULES, Sep. 2022, <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M496/K876/496876177.PDF>

¹⁷ Massachusetts Department of Public Utilities. "Draft Policy and Practices for Proposed Line Extension Allowances and Contributions in Aid of Construction for Gas Local Distribution Companies." Massachusetts Department of Public Utilities, February 5, 2025.

We recommend that the draft policies explicitly state that LDCs seeking the exception criteria for an LEA must do so for each proposed project involving a line extension or new customer connection, rather than seeking blanket approvals for entire customer categories or project types. Petitions for LEA exceptions should be considered on a project-by-project basis rather than under any blanket exception. Each new connection warrants individual consideration to preserve the fundamental principle that LEAs are given only in extraordinary circumstances. For example, we strongly dispute the generalization that all industrial customers would fall into the “no feasible alternative” category. Direct electrification with heat pumps is uniquely cost-effective for low-temperature industrial heating needs. Energy Innovation’s 2021 Report, “Decarbonizing Low-Temperature Industrial Heat in the U.S.”, highlights that industrial heat pumps commonly achieve a coefficient of performance of three or four when delivering temperature increases of 40 to 60 degrees Celsius. No other heating technology, electric or fuel combustion, can supply heat at an efficiency exceeding 100%, which means there has been a complete conversion of the electrical or chemical energy into heat. Comparably, hydrogen is not a well-suited technology for lower-temperature industrial heating because of its associated energy losses and high costs.¹⁸

Administrative costs related to LDC petitions for LEA exceptions, including the cost of any analysis prepared by the LDC in support of the petition, should be charged to the prospective customers seeking the LEA exception and not recovered through the base rates or added to the CIAC account.

The draft policy establishes three criteria that must each be met to qualify a project for an LEA exception. The three exception criteria are connected by an “and” rather than an “or” which can be plainly interpreted as a project must meet all three of these criteria to qualify for an LEA exception. The draft policy should state explicitly that each criterion must be met in full to qualify a project for an LEA exception.

Each of the exception criteria in the draft policy is discussed below.

(1) The project associated with the proposed line extension allowance will lead to a demonstrable reduction in GHG emissions over the operational life of the asset, including methane leakages from the utility's distribution pipes.

“Demonstrable” should be defined as quantifiable based on the full lifecycle emissions of the gas line extension.

¹⁸ Rissman, Jeffrey. “Decarbonizing Low-Temperature Industrial Heat in the U.S.” Energy Innovation Policy and Technology, Jan. 2023, energyinnovation.org/wp-content/uploads/Decarbonizing-Low-Temperature-Industrial-Heat-In-The-U.S.-Report-2.pdf

The draft policy should establish a clear and consistent methodology for assessing a demonstrable reduction in GHG emissions for proposed line extensions serving new construction, including the counterfactual scenario and timeframe against which a demonstrable reduction in GHG emissions is achieved. We recommend that an all-electric baseline be used as the counterfactual for this analysis in new construction projects. In this baseline, the customer's energy needs are met through electric rather than gas appliances. The range of end uses will vary by customer type. For residential customers, end uses should, at a minimum, include space heating, water heating, cooking, and clothes drying. The baseline electric and natural gas technologies serving these end uses should be established through a market characterization study and may need to be adjusted for the adoption of higher-efficiency electric equipment incentivized by the utility and federal electrification incentives.

The GHG emissions intensity of the electric and gas systems, including changes to emissions intensity over time, should also be included in the life-cycle emissions analysis. With regard to projects connecting existing buildings to the gas distribution system, we urge that any analysis considering the potential GHG emission benefits associated with oil-to-gas conversions consider the high level of risk associated with the underestimation of methane leaks from the gas system, both behind and in front of the meter. For example, a study published in PNAS in 2021 found that atmospheric methane measurements in the Boston area over eight years were three times larger than calculated by usage-based inventories, observing no changes in emissions despite efforts to replace leak-prone pipes.¹⁹ The Massachusetts GHG Inventory currently assumes low levels of methane leaks from the distribution system and does not estimate behind-the-meter leaks, underestimating the level of climate risk posed by future changes to the methane leak accounting methodology as the collective scientific understanding of methane leaks improves in the coming years. In 20-80-B, the D.P.U. acknowledged the current limitations of the Massachusetts GHG Inventory on a separate topic - GHG emissions associated with 'renewable natural gas' (RNG) - when it concluded, "We recognize that RNG and the use of hydrogen as a fuel are emerging technologies that have not yet been proven to lead to a net reduction in GHG emissions."²⁰ This is in contrast to the MA GHG Inventory accounting methodology, which takes an over-simplified approach to categorizing all biofuels as GHG-neutral fuels. In essence, if the D.P.U. takes a different view from the MA GHG Inventory of biofuel GHG accounting practices, we see no

¹⁹ Sargent, M., Floerchinger, C., McKain, K., Wofsy, S. 2021. Majority of US urban natural gas emissions unaccounted for in inventories. *Proc Natl Acad Sci U S A*. 2021 Nov 2;118(44):e2105804118. doi: 10.1073/pnas.2105804118

²⁰ D.P.U. 20-80-B, page 68 <https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/18297602>

reason why the D.P.U. couldn't take a different view from the MA GHG Inventory on the level of risk posed by methane leaks.

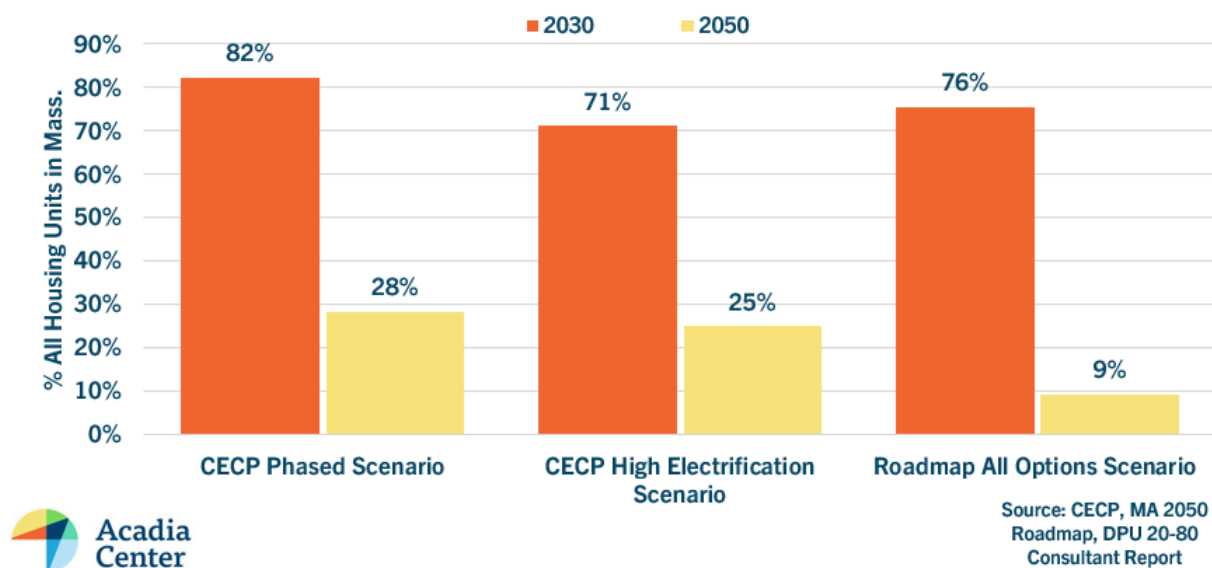
Lastly, the D.P.U. should ensure that the project does not claim any environmental credits to reduce GHGs. The project itself must result in GHG reductions rather than relying on offsets to achieve reductions, as offsets can be challenging to verify, may rely on methodologies of varying quality, and can result in double counting of emissions benefits.

(2) The gas line extension required for the project is consistent with achieving the GHG limits under Chapter 21N.

We strongly support the intent of exception criterion #2 because it has the potential to elevate the key distinction between projects that may marginally reduce GHG emissions in the short term and projects that actually align with the medium- and long-term decarbonization strategies necessary to achieve the ambitious subsector emission targets in the building sector. For example, proposed line extension projects bringing natural gas to residential and commercial customers currently reliant on oil for space heating may reduce GHG emissions in the short term (pending assumptions regarding rates of methane leakage). However, these projects are simultaneously counterproductive for a state that needs to reduce residential sector heating & cooling emissions by 40% from 2022-2030 and reduce commercial sector heating & cooling emissions by 38% over the same time period to be compliant with subsector emission limits. For example, Acadia Center has conducted analyses on the role of combustion heating across several of the “preferred scenarios” in Massachusetts’ climate plans, including the CECP Phased Scenario, CECP High Electrification Scenario²¹, and the 2050 Decarbonization Roadmap All Options Scenario. Regardless of which scenario one chooses as the north star guiding building decarbonization in the Commonwealth, the overall message is clear: The percent of homes combusting *any level of fuel of any type* for space heating by 2050 needs to, at a minimum, decrease to somewhere between 9% and 28% of all homes for the state to achieve its climate targets, as highlighted in the graph below.

²¹ The narrative in the 2025/2030 CECP primarily focused on the “Phased” Scenario, but Acadia Center argued in our [2022 comments](#) that the “Flexible Load” sensitivity of the “High Electrification” scenario actually demonstrated the lowest net cost of any scenario/sensitivity combination evaluated in the CECP modeling.

Figure 3. Percent of Homes with Some Form of Combustion Heat in 2030 vs. 2050: Comparing Scenarios



As shown in Figure 4, the CECP modeling results describe the modeled trajectory of gas delivered to residential and commercial customers over the 2020-2050 time period for two scenarios - the Phased scenario (which was the primary scenario of focus in the CECP narrative) and the High Electrification scenario (which Acadia Center argued in [our 2022 comments](#) is actually the most cost-effective path to achieving the State's climate targets based on the CECP's own modeling analysis). The High Electrification scenario modeled a 21% decline in gas sales relative to 2020 levels by 2030 and a 61% decline by 2050. Perhaps even more importantly, both the High Electrification and Phased scenarios predict a 76%+ decline in gas sales from 2020 to 2050 (Phased 76%, High Electrification 78%).

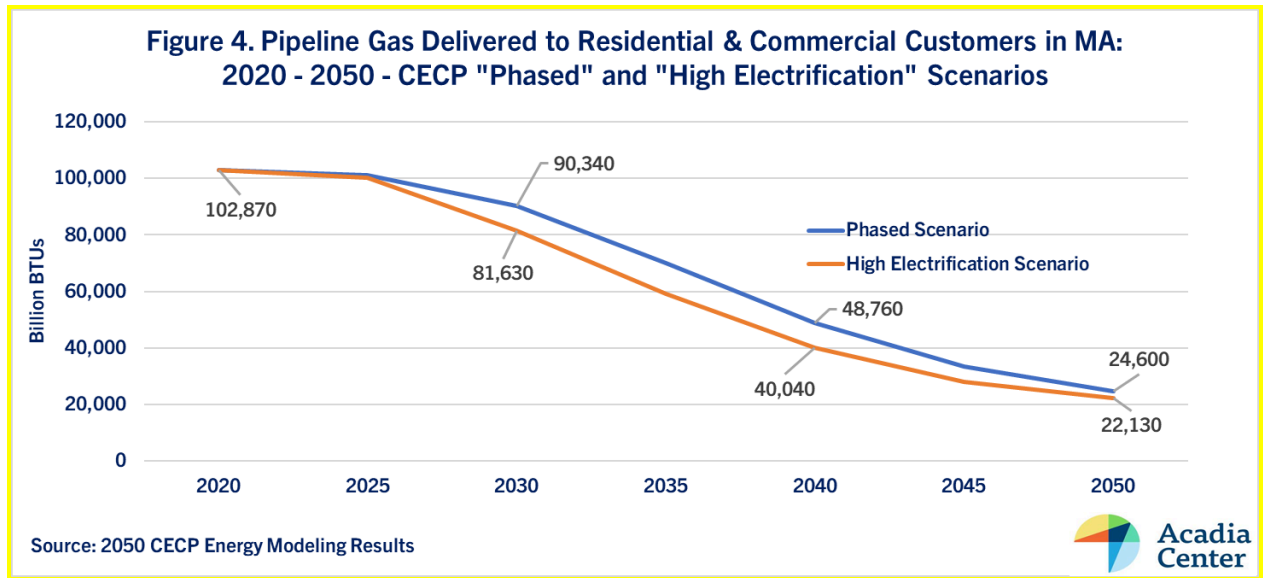


Figure 5. Percent Reduction in Pipeline Gas Delivered to Residential & Commercial Customers Relative to 2020 Levels Based on Two CECP Scenarios

Scenario	2030	2040	2050
Phased	-12%	-53%	-76%
High Electrification	-21%	-61%	-78%

Given this reality, the Department should construct the LEA policy to ensure a narrow reading of the criterion such that only in extraordinary circumstances could either residential or commercial projects proposing to convert existing oil customers to gas heating via line extensions pass muster. The Climate Compliance Plans (CCPs) developed by the LDCs will help evaluate a project's compliance with criterion #2, as the CCPs should identify how the LDCs plan to reduce both the volume of gas sold and the number of gas customers in the state in compliance with scenarios developed within the CECP and Roadmap processes. Individual projects must demonstrate how adding new residential and commercial gas customers aligns with—rather than contradicts—the gas throughput and customer reduction targets established in the CCPs and the state's broader climate plans.

(3) *The project applicant demonstrates that it has no feasible alternatives to the use of natural gas, including electrification.*

Feasibility should be limited to *technical* feasibility. The applicant must demonstrate all other options, including full electrification, hybrid heating systems

utilizing delivered fuels, thermal energy networks, on-site solar thermal energy, and aggressive energy efficiency measures have been fully evaluated and deemed technically infeasible for a specific project. For example, a high-heat industrial process where an electrified equivalent for a piece of equipment is not commercially available.

We recommend the definition of feasibility be limited to technical feasibility as financially or practically feasible for LDCs and developers is subjective and leaves ample room for interpretation. Recognizing that the clean energy transition is already in progress, we must halt the continued subsidization of risky gas infrastructure investments, which create undue rate pressures on current customers. Historically, line extension allowances were designed to benefit existing ratepayers by leveraging new customer connections that would contribute to and ultimately offset system costs. However, as customers move away from this infrastructure, these economic assumptions no longer hold true. The fundamental rationale supporting these investments has fundamentally disappeared, rendering the current approach detrimental to existing customers' financial interests.

Additionally, the feasibility criteria should also account for the risk of under-recovery or non-recovery of gas line costs, including scenarios where gas usage falls below forecasted levels or where gas customers terminate gas service early in favor of electrification.

As a very last resort, the LDC's calculation of the LEA should be based on a uniform approach and assumptions for the benefit and cost analysis (BCA). This BCA approach should be consistent with the State's climate commitments by quantifying the social costs of greenhouse gases and other pollutants within the cost ledger of the LEA calculation. Massachusetts law already requires consideration of the social cost of carbon when approving funding for energy-efficiency and demand-reduction programs. This same consideration could be applied to the assessment and quantification of ratepayer subsidies for new line extensions to show the value of the emissions reduction. Explicitly stating that the State-determined social cost of carbon must be included in determining feasible alternatives to line extension allowances would ensure that cleaner alternatives to gas, including electric appliances and thermal energy networks, are evaluated fairly for cost-effectiveness over their lifespans.

The BCA calculation should discount forecasts of future consumption and revenue to account for the real risks that LEA subsidies are never fully recovered through retail sales revenues collected from the new connection customer(s). For example, the LDC would likely under-recover revenues from customers who,

during the repayment period,²² weatherize their home or business, electrify one or more end-use appliances (partial electrification), or fully electrify all end-uses and disconnect from the gas system (early departure). The discount factor applied to revenue forecasts to reflect risk in under-recovery should be set by the D.P.U. for each LDC to reflect customer adoption curves for weatherization and electrification measures.

Another way to manage the risk of under-recovery of LEAs is to shorten the repayment period for residential customers from 20 years to 10 years and shorten the repayment period for commercial and industrial customers from 10 years to 5 years.²³

The cost and feasibility of alternatives to the use of natural gas (“non-pipes alternatives”) should be compared to the costs of the gas extension, including factors identified in this section: the social cost of carbon, a discount factor to reflect the risk of under-recovery, and an abbreviated recovery period. This same analysis can be used to determine the amount of LEA subsidy (if any) a project may receive that passes each of the LEA exemption criteria.

The D.P.U. should have the discretion and resources to hire experts to review the LDC’s feasibility analysis. The D.P.U. should decide in its refinement of the policy whether the LDCs should obtain permission from D.P.U. to conduct a feasibility analysis and if there needs to be a preliminary step before an in-depth analysis is undertaken. A blanket methodology for feasibility may not be the best approach at this time, as the current process for LEA evaluation/CIAC calculation is so varied across LDCs, however, standardization should be considered if this were to change.

The D.P.U. should outline a comprehensive assessment process in their LEA policy:

In D.C., Rewiring America with Groundwork Data conducted pipeline segment analyses which compare the impacts of the gas utility’s planned replacement of certain pipeline segments with strategic decommissioning and three different electrification scenarios. We recommend that the technical conference that we reference on pages 6-7 conduct a similar type of comparative analysis.

²² The current repayment period for LEA calculations is typically 10 years for commercial customers and 20 years for residential customers. See: Exhs. BGC, at 6; CCAF-1, at 5; NG-1, at 16.

²³ This echoes a recommendation to shorten the LEA recovery period made by the Office of Attorney General. See: AGO Comments at 19.

The pipeline segment analysis evaluates three scenarios: Unmanaged Business as Usual where the pipe is replaced in 2030 with partial household electrification while others maintain gas usage; Unmanaged Full Electrification, where the pipe is replaced in 2030 and all homes gradually electrified by 2050 as appliances reach their end-of-life; and Managed Electrification, where the pipe is decommissioned in 2030 and all homes fully electrify by either appliance end-of-life or pipe decommissioning, whichever occurs first.²⁴ The study analyzes the impacts on overall capital costs, customer bills, and GHG emissions that result from each scenario.

The Massachusetts Non-Pipeline Alternatives Working Group is developing a comprehensive framework for assessing traditional pipeline investments and their alternatives including electrification, thermal energy networks, energy efficiency, and demand response. The insights from cost-benefit modeling, while still evolving and potentially requiring significant refinement before implementation, will be highly valuable for LEA evaluations and should be utilized if not the foundation for the assessment process.

The LEA policy's implementation timeline should be swift and the implementation should occur all at once rather than in phases:

We recommend Massachusetts follow the approach to eliminate LEAs all at once rather than taking a phased approach. Notably, the CPUC adopted the same three exemptions D.P.U. have proposed. D.P.U. has progressed in its Future of Gas docket to the point in which a phased approach is not necessary. Beyond the timeline for implementing the proposed policy, it is essential that D.P.U. provides clear and detailed guidance to LDCs including but not limited to outstanding definitions within the policy. For context, we've outlined Colorado, California, and New York's approaches to implementation timelines.

California implemented its elimination of line extension allowances all at once within a year of adopting the policy. For decades before the policy's full implementation in 2024, California's big gas utilities offered generous allowances – often thousands of dollars per hookup. However, the CPUC's order (Decision 22-09-026) does not ban new gas connections outright – developers can still choose gas, but at their own cost.

The Colorado Public Utilities Commission (PSC) initially opted for a more incremental approach, lowering gas line extension allowances over time. In December 2022, the Colorado PSC revised its approach to LEAs, creating a formula accounting for the expenses of installing new gas lines, expanding existing pipelines to accommodate

²⁴ Pierce, Zach. "Prepared Direct Testimony of Zach Pierce, Exhibit SC (A)." In the Matter of the Investigation into Washington Gas Light Company's Strategically Targeted Pipe Replacement Plan, Formal Case No. 1179, Public Service Commission of the District of Columbia, 10 Dec. 2024.

additional demand, and the social costs of carbon. Following this decision, SB 291 was passed into law requiring the PSC to eliminate LEAs all at once. The PSC subsequently required utilities to file revised tariffs by January 1, 2024.²⁵ With respect to existing contractual agreements and to preserve the economics of existing developments, the PSC authorized the utilities to exempt from the new LEA tariffs those customers with contractual agreements for new line extensions executed prior to May 1, 2024 – four months after the tariff revision filing deadline. The Commenters believe that a grace period of similar duration for customers that have submitted and received approval for line extensions is likewise appropriate for Massachusetts, balancing the urgency of limiting subsidies for gas system expansion with the need to uphold existing contractual agreements.

The D.P.U. should perform additional analysis to quantify equity, labor, and employment impacts that could result from the implementation of the LEA policy:

In terms of cost, as is discussed in Groundwork Data's report, *The Future of Gas in New Construction in Massachusetts*, all-electric new construction has now achieved cost parity with gas-powered construction.²⁶ While certain HVAC design choices unrelated to energy sources can impact the overall project cost, the report notes that ductless mini-split systems can eliminate expenses tied to internal gas piping and ductwork while enabling zoned heating and cooling. Additionally, the report suggests that electric heating strategies are likely more cost-effective when factoring in the costs of gas pipe extensions. Ending LEAs is more equitable and fair as a practice because it reduces the amount that regressive utility customer bills will subsidize gas line extensions when there exist more cost-effective options for new service.²⁷

Ultimately, any changes to line extension allowances would have a relatively minor impact on housing costs compared to overall construction expenses and other market and policy factors. However, additional research or, at least, monitoring will be needed to fully consider the impacts on the cost of new housing, especially multifamily. The D.P.U should consider how ending LEAs will impact hiring plans and construction activity.

In the short term, it's very unlikely gas workers will lose their jobs due to the end-of-line extension allowances. Order 20-80-B notes that gas utilities' existing investments and

²⁵ Public Utilities Commission. Commission Decision Adopting Rules. 1 Dec. 2022, Proceeding No. 21R-0449G.

https://www.dora.state.co.us/pls/efi/EFI_Search_UI.Show_Decision?p_session_id=&p_dec=29605

²⁶ Pipeline Extension Allowances and the Future of Gas in Massachusetts, page 39.

²⁷ Groundwork Data, page 46.

operations are not being shut down and the transition will be managed and gradual.²⁸ Removing gas line extension allowances will likely slow down the growth of gas distribution system construction, a source of work for pipeline crews. However, the Gas System Enhancement Program will still be undertaken by Massachusetts gas utilities, and aged and leaking pipes will need repairs and replacements. As discussed previously, electrification and prioritization of non-pipeline alternatives are already deeply incorporated in Massachusetts' statute and regulation, meaning the *nature* of the work is likely on the path to change. At the same time, the same crews that are retiring aging pipes may be deployed to install network geothermal construction.

The 2022 climate law explicitly authorized gas utilities to sell geothermal energy services allowing them to treat these systems as part of their regulated business. Assuming the networked geothermal pilots currently underway in the Commonwealth demonstrate that networked geothermal presents a cost-effective path forward for the building decarbonization transition, this law authorization could prove crucial because it means a gas company can invest in a geothermal network and earn a return similar to what it would on a gas pipeline – aligning business incentives with climate goals. Installing a geothermal network can use the same labor workforce (drillers, pipefitters, laborers) that a gas main replacement would use.

Aside from networked geothermal, the building decarbonization transition more broadly presents job creation opportunities for those working in the trades. For example, for HVAC technicians, electricians, and plumbers, shifting away from gas can mean new work in heat pump and heat pump water heater installations, electrical upgrades, and building envelope and weatherization upgrades. A previous analysis of Massachusetts' 2022 Clean Energy and Climate plan for 2025 and 2030 shows that implementation of the climate plan would create 22,000 jobs by 2030, 95% of which are mid-to-high wage jobs; over 7,000 of these jobs are in the building trades.²⁹ Fully decarbonizing the Massachusetts single-family housing stock by retrofitting the 1.4 million homes in need of an electric retrofit with a heat pump would create 35,367 direct job years (most of which are in the building trades), and have an overall economic effect of 117,424 direct, indirect, and induced job years³⁰.

²⁸ Massachusetts D.P.U. Order 20-80-B.

²⁹ *Massachusetts Clean Energy and Climate Plan for 2025 and 2030*.

<https://www.mass.gov/doc/clean-energy-and-climate-plan-for-2025-and-2030/download>

³⁰ According to a Rewiring America Internal analysis, multiplying the average incremental upfront cost of retrofitting one household with a heat pump compared to a gas alternative by the number of households in need of retrofit in order to derive total investment needed to complete state-wide retrofits, then applying multipliers multiplier for total FTE jobs/\$ million produced by a residential EE upgrade from Sovacool et. al. 2023 <https://www.sciencedirect.com/science/article/pii/S1040619023000416?via%3Dihub>

Conclusion

The undersigned strongly support the D.P.U. taking action to end line extension allowances through the proposed LEA policy submitted in docket 20-80, with few proposed recommendations, due to the direct benefits it will have throughout Massachusetts and beyond. This forward-looking policy aligns well with previously established state energy and climate goals, will protect customers from undue cost burden, and will promote the adoption of efficient electric technologies. Eliminating customer subsidization of voluntary line extensions, the Massachusetts D.P.U. will be better positioned to protect consumers, control costs, and enable a just transition away from fossil fuels and towards a more affordable, sustainable energy landscape for Bay Staters. The adoption of the proposed policy will be a critical step in facilitating advancement toward the state's 2050 clean energy and climate plan goals and help ensure affordability and equity in gas utility pricing as customers transition off of the gas system. We thank you for the opportunity to comment on this draft LEA policy and encourage the swift adoption of this draft policy to ensure that its benefits can be realized by customers as soon as possible.

We appreciate your work on this crucial policy. Thank you again for considering our comments.

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