September 14, 2021

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Sarah Smegal, Hearing Officer
Massachusetts Department of Public Utilities
One South Station, 5th Floor
Boston, Massachusetts 02110

Subject: D.P.U. 20-80: Stakeholder Response to LDCs’ September Status Report

Dear Hearing Officer Smegal:

The undersigned stakeholders, who represent a range of advocates with expertise and interest in energy from the perspectives of economics, science, law, community, and more, and who are working to combat the climate change crisis and provide equitable solutions to the consequences thereof, respectfully submit this letter in response to the status report submitted on September 1, 2021 in Massachusetts Department of Public Utilities (“DPU”) Docket No. 20-80, the Department’s Investigation into the Future of Gas (“20-80” or “the Future of Gas”). This proceeding presents an important opportunity to position Massachusetts to achieve the emissions mandates set forth in Massachusetts’ Climate Roadmap Law1 and articulated by Governor Baker2 and Secretary Theoharides of the Massachusetts Executive Office of Energy and Environmental Affairs (“EEA”)3. This undertaking presents many challenges, especially as one of only a handful of similar proceedings throughout the country. The DPU must ensure that this process incorporates the voices of those who will be affected by gas system transformation and to ensure that the work complies with the state’s climate requirements.

The gas utilities participating in this proceeding (“local distribution companies” or “LDCs”) have retained three consulting groups (E3, ERM, and ScottMadden, hereafter collectively “the consultants”) to perform technical analyses and facilitate the stakeholder process in this matter. While the undersigned stakeholders appreciate the immense challenge facing the consultants, this letter seeks to inform the Department of important gaps between the commitment made to stakeholders by the LDCs and consultants and what has actually occurred to date, in addition to recommendations that we request the Department implement in its oversight role. Specifically, as further described below, the undersigned stakeholders request that the Department direct the LDCs and their consultants to:

1. Ensure that any scenarios analyzed in the Future of Gas proceeding meet the Commonwealth’s climate mandate of net-zero greenhouse gas emissions by 2050;
2. Evaluate at least one scenario which includes full decommissioning of the gas distribution system;
3. Place equity and a just transition at the center of all analyses; and
4. Adhere to the terms of the stakeholder meeting agreement and oral and written commitments by the LDCs and their consultants, including:
   a. Providing presentations for stakeholder meetings at least one week in advance of the meeting;
   b. Providing data and assumptions used for such presentations at least one week in advance of stakeholder meetings;
   c. Posting all written stakeholder correspondence on the Future of Gas website;
   d. Providing written responses to all stakeholder correspondence;
   e. Incorporating stakeholder feedback into scenario design;
   f. Convening policy/technical, community, and customer work groups; and
   g. Convening small group stakeholder meetings on discrete topics such as transitioning the labor force and the meaning of “decarbonized gas”.

In support of the above requests, the undersigned stakeholders provide the below information to the Department.

**Workstream 2: Examination of the Impacts of Decarbonization**

As described in the LDCs’ September 1 Status Report, the consultant E3 developed a modeling framework based on the Commonwealth’s 2050 Roadmap. While the 2050 Roadmap can be a useful tool in this process, the Future of Gas proceeding presents an opportunity to expand upon that work and look for better, bolder solutions. In this regard, the LDCs’ modeling frameworks and scenario design are missing key components, without which scenario analysis will be inaccurate and incomplete. The LDCs’ Report notes that the modeling is designed to meet the same levels of emissions reductions as the 2050 Roadmap and the 2030 Clean Energy and Climate Plan, but the proposed scenarios for consideration fail to align with Massachusetts’ mandated emissions reductions, which is the Commonwealth’s legally required target and thus must be the LDCs’ goal in modeling under all scenarios.

The proposed scenarios also assume the continued buildout of new gas infrastructure without a valid basis or consideration of the impact of customer attrition leaving fewer customers paying the fixed costs of the gas system and resulting in heating from gas become more expensive than heating with electric heat pumps; these costs would be further driven up by rate impacts of GSEP and climate mitigation programs like EEA’s proposed heating fuel emissions caps. No scenario presented at the August 24th stakeholder meeting involves full decommissioning of the pipeline gas system, despite consistent stakeholder feedback in support of decommissioning scenarios. The undersigned stakeholders therefore request that the Department direct the LDCs and their

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5 Status Report at 2.
consultants to include scenarios which review full decommissioning of the gas system and ensure that only scenarios which achieve Massachusetts’ legally mandated greenhouse gas emissions reductions are analyzed.

In addition to the foregoing, stakeholders have also been dismayed to see that equity and environmental justice are afterthoughts in scenario design, rather than central pillars of the process. The undersigned stakeholders have urged the consultants to elevate these considerations in scenario design and throughout the Future of Gas proceeding, without success. Similarly, the process thus far has failed to include meaningful planning for an equitable transition for the labor sector despite widespread stakeholder support on the topic. These topics should be of particular importance to the Department following the passage of Massachusetts’ Roadmap Law earlier this year, as the law mandates that the Department’s main priorities must now include equity. Accordingly, the undersigned stakeholders respectfully request that the Department instruct the LDCs and their consultants that these concepts must be given greater weight in all future scenario design and analysis.

Workstream 6: Stakeholder Process

Commitments to Stakeholders by LDC Consultants Remain Unmet

In March, 2021, months before stakeholder meetings began, the consultants provided a draft Stakeholder Engagement Plan (attached as “Attachment 1”, hereafter “SEP”) and solicited feedback from a group of stakeholders. Gas Leaks Allies and Conservation Law Foundation provided comments (attached as “Attachment 2”). Following this, at the outset of the stakeholder process for this matter, the consultants presented to the stakeholders a draft stakeholder meeting agreement (attached hereto as “Attachment 3”), which provided guidelines for the stakeholder process and the meetings held thereunder. While it was a good starting point, this draft agreement was lacking in several key areas, which were noted in written comments from stakeholders dated May 24, 2021 (see “Attachment 4”) and presented orally at the stakeholder meeting on May 25, 2021. Unfortunately, despite consensus among stakeholders that significant changes to the stakeholder meeting agreement were necessary, the final agreement (attached hereto as “Attachment 5”) is almost identical to the draft agreement. In addition to the stakeholder meeting agreement, the consultants drafted a matrix of stakeholder feedback and their responses thereto (attached hereto as “Attachment 6” and updated in “Attachment 7”). At the May 25, 2021 meeting, the consultants also provided a draft of the SEP, which had been reviewed previously by some stakeholders, but not all. The LDCs state that agreement as to the content of the SEP and the stakeholder meeting agreement was reached at the May 25, 2021 stakeholder meeting, but in reality the end of that meeting left many stakeholders confused as to what exactly had been agreed upon. Although multiple stakeholders expressed skepticism about the process to this point and stated that failure to cooperate would undermine stakeholder confidence, stakeholders have continued to engage in good faith, with the hope that our

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6 Status Report at 10.  
7 Around the 1 hour and 10-minute mark of the recording of the May 25, 2021 stakeholder meeting, the consultant asks if we are all in agreement as to the contents of the Stakeholder Engagement Plan; however, having provided feedback and without seeing a draft incorporating such feedback, it was not possible at that time for stakeholders to know exactly what we were supposed to be agreeing to. The recording is available at: https://thefutureofgas.com/sep and was accessed on September 10, 2021.
engagement will help yield successful results for this matter.

Regrettably, several commitments made in the stakeholder meeting agreement and feedback matrices remain unmet. First, and most importantly is the commitment to include disproportionately impacted communities, hard to reach groups, and groups typically unrepresented or underrepresented in regulatory processes or proceedings. Although the consultants have engaged one-on-one with some stakeholders, it is not clear that disproportionately impacted groups are represented by those stakeholders. The LDCs’ status report also notes that one-on-one engagement with these communities is forthcoming, but this should have been initiated at the outset of this process, if not sooner. The consultants should make public the names of those with whom they have engaged. In addition to one-on-one engagement, these groups should be brought into the general stakeholder meetings and the consultants should work to ensure they are given ample platform there to voice their perspectives. In addition, stakeholders have not been provided with the data used by the consultants.

In addition, the consultants’ response to stakeholder correspondence has proven inadequate and failed to meet agreed upon standards. All stakeholder correspondence should be posted on the Future of Gas website with written responses from the consultants within one week of receipt. In the event that the consultants anticipate needing more than one week to respond to stakeholder correspondence, the initiating letter should be posted on the website and the stakeholder informed of receipt and anticipated delay in responding. Only during the time of this writing, on September 10, 2021, have the consultants provided responses to stakeholder comment letters and only the responses have been posted to the Future of Gas website, which frustrates the ability of the remaining stakeholders to understand and engage, as they have an incomplete understanding of what has occurred. The undersigned stakeholders ask that the Department instruct the consultants to post all correspondence as outlined above.

The stakeholder meeting agreement requires establishment of a policy/technical group, a communities group, and a customer group; to date none have been created, and small group discussions on dedicated topics such as labor and equity and the meaning of “decarbonized gas” have yet to be scheduled. As a result, there has also been a default on the agreed commitment to conduct monthly meetings with the policy/technical group to review activities within the past 30 days. In fact, when presented with technical questions at stakeholder meetings, consultants have requested that stakeholders provide questions in writing because the issue was too complicated to answer at the meeting, but no public response for the questions are provided once they are submitted in writing. Once again, this could be resolved by publishing stakeholder communication in a more public and accessible manner.

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8 Status Report at 8.
9 The consultants have created a website (www.thefutureofgas.com) where stakeholders can submit correspondence, find meeting schedules and links, listen to recordings of the minutes, and view other documents. In addition to the recommendations detailed in the text of this letter, the undersigned stakeholders recommend that the Department instruct the consultants to enhance this website by moving to more traditional website navigation (such as a header bar with links and drop down menus) and by removing misleading gas propaganda, such as that shared from the American Gas Association.
10 On June 22, 2021, a stakeholder technical advisory group meeting was held, but it remains unclear whether this meets the commitment of a policy/technical group, and no information has been provided as to whether and when the group will meet again.
correspondence to the Future of Gas website and providing responses in writing, also on the website. As we are already several months into the stakeholder process, these commitments must be met without delay in order to be useful. Further, holding these technical sessions as separate meetings will render general stakeholder meetings more effective and allow for more general discussion which includes a more representative range of stakeholder perspectives.

The stakeholder feedback matrix commits the consultants to convene small group discussions on discrete topics at the request of the LDCs or stakeholders with representation from subject matter experts on the topic and people or groups most impacted by the topic. Although there have been several requests for dedicated meetings on topics such as labor, equity, hydrogen and other “decarbonized” fuels, and networked geothermal, no such meetings have been scheduled to date.

In addition to convening discrete groups to streamline discussions, the stakeholder meeting agreement obligates the consultants and LDCs to provide full and timely transparency of publicly available data underlying the consultants’ analysis and to provide stakeholders with the opportunity to provide feedback on the data and assumptions underlying such analyses. To date, none of this information has been provided to the stakeholders. Slide decks have been provided to stakeholders 5 or 6 days ahead of meetings, despite the stakeholder meeting agreement (described in further detail below) requiring at least a week’s time for stakeholders to review. Along with the presentations, the Department should ensure that the consultants provide stakeholders with draft assumptions and data sources, so that stakeholders can provide thoughtful comments on the assumptions and data sources upon which proposals are based. In this regard, involving the stakeholders at the outset of the design process will help reduce the need for multiple iterations of comments. We therefore request that the Department direct the consultants to provide this information, including any data from previously held meetings, to stakeholders without delay.

As described above, the undersigned respectfully request that the DPU direct the LDCs and their consultants to ensure that all components of the stakeholder meeting agreement and feedback matrices be incorporated into the stakeholder process without delay.

**Stakeholder Feedback on Scenario Design Has Not Been Adequately Integrated**

As part of the stakeholder process, stakeholders have provided multiple rounds of feedback on scenario design but have received no response about how the feedback will be incorporated into the LDCs’ final work product. Additionally, despite extensive feedback from stakeholders on scenario design, almost none of the stakeholder comments were incorporated into the scenarios presented at the stakeholder meeting on August 24, 2021. This lack of response to stakeholder participation discourages further participation and reduces the likelihood of stakeholder buy-in to the eventual outcome of the process. To date, only limited input from stakeholders has been incorporated into modeling scenarios; we are pleased to see the consultants’ attempts to include networked geothermal into modeling scenarios but need more information on assumption and data to be used in modeling. Modeling scenarios and sensitivities, and the inputs and assumptions that underlay them, lay the groundwork for the LDCs’ subsequent plans without committing them to any particular outcome. This must be the element of the process where consensus is achieved, to ensure a shared understanding of the terms of debate among
stakeholders when the LDCs’ plans are adjudicated. The most immediate goal for this process must be to reach a general agreement with the stakeholders on scenarios to be evaluated, as well as any associated inputs and assumptions.

As discussed above, stakeholders have dedicated a great deal of time, effort, and personal expense to participate in this process, but it is not clear that all comments or recommendations will be incorporated into the LDCs’ final work product, and the reasoning for not including comments or recommendations has not been provided to stakeholders. Thus, we request that the Department instruct the Future of Gas consultants to adhere to the commitments made in the stakeholder meeting agreement and feedback matrices and to incorporate the recommendations of stakeholders throughout the duration of the Future of Gas proceeding; in the event that a certain recommendation cannot be integrated, the Department should task the consultants with providing a reasonable explanation of their reasoning.

Closing Remarks

The undersigned stakeholders have dedicated a significant amount of time and effort to this process without substantive response from the LDCs or consultants.11

As previously noted, the stakeholders recognize the immense challenge taken up by the Department, the LDCs, and the consultants in the Future of Gas proceeding and believe that this process can continue to build mutual understanding and trust between stakeholders and the LDCs with the Department’s oversight requested herein. Many of the undersigned come to you with significant experience and expertise in seeking out solutions to the climate crisis. We firmly believe that if we work together, we can achieve Massachusetts’ climate mandates in a just, equitable, and economically viable manner.

Thank you for your time and attention to this matter. We welcome continued dialogue and look forward to continuing to work together. Please contact Priya Gandbhir (pgandbhir@clf.org) or Ania Camargo (ania.camargo@gmail.com) with any return correspondence, and we will coordinate with the rest of the undersigned.

Very truly yours,

Caitlin Peale Sloan, Vice President, Massachusetts Conservation Law Foundation

Priya Gandbhir, Staff Attorney
Conservation Law Foundation

Ania Camargo
Mothers Out Front Massachusetts

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11 See attachments 8-13 for examples of the in-depth technical feedback provided by stakeholders without reciprocation.
Cora Weissbourd
Mothers Out Front

Kyle Murray, Senior Policy Advocate-Massachusetts
Acadia Center

Sarah Krame, Associate Attorney
Sierra Club

Debbie New
Gas Leaks Allies

Nathan Phillips, Dept of Earth and Environment
Boston University

Kathryn R. Eiseman, President
Pipe Line Awareness Network for the Northeast

Kannan Thiruvengadam
Eastie Farm

Sarah Griffith
Climate Reality Project, Boston Metro Chapter

Alice Arena
Fore River Residents Against the Compressor Station

Patricia A. Gozemba
Salem Alliance for the Environment (SAFE)

Karen Martin, Chair
Unitarian Universalist North Andover North Parish Climate Justice Group
D.P.U. 20-80 Stakeholder Process

In its October 29, 2020 Notice of Inquiry (“NOI”), opening an Investigation “into the role of gas local distribution companies as the Commonwealth achieves its target 2050 climate goals,” D.P.U. 20-80, the Massachusetts Department of Public Utilities (“Department”) noted that the future of the natural gas industry has been a topic of interest for many stakeholders. In addition to stating its intent to solicit utility and stakeholder input regarding the investigation,¹ the Department directed the local distribution companies to: (1) develop the scope of work to be included in the Request for Proposals (“RFP”) for an independent consultant(s) to conduct a study and prepare a report (“Report”), after consultation with the Massachusetts Office of the Attorney General (“AGO”), Executive Office of Energy and Environmental Affairs (“EEA”), and the Department of Energy Resources (“DOER”), and other interested stakeholders; and (2) engage in a stakeholder process to solicit feedback and advice on both the Report and the proposals. NOI at 6.

On February 10, 2021, the Department reiterated these directives, stating that the natural gas local distribution companies (“LDCs”) should consider stakeholder input throughout the process of developing the Report to help facilitate an administratively efficient proceeding after the Report is filed with the Department. Order on Office of Attorney General’s Motion for Clarification, D.P.U. 20-80-A at 15 (February 10, 2021). In its ruling on the AGO’s Motion, the Department further directed the LDCs to verify compliance with the Department’s directives to engage with stakeholders, by including a “summary of engagement” in status updates submitted to the Department. Id.

With these directives in mind, NSTAR Gas Company and Eversource Gas Company of Massachusetts each d/b/a Eversource Energy, Boston Gas Company and former Colonial Gas Company each d/b/a National Grid, Liberty Utilities (New England Natural Gas Company) Corp. d/b/a Liberty, The Berkshire Gas Company and Fitchburg Gas and Electric Light Company d/b/a Unitil (collectively “Local Distribution Companies” or “LDCs”) have developed the following draft stakeholder process, for comment and input:

A. Consultation on Request for Proposals (“RFP”)

Consistent with the Department’s directive in the NOI, the LDCs consulted and collaborated with the AGO, EEA, and DOER prior to the release of the RFP. The LDCs also sought the input of other interested stakeholders, including Conservation Law Foundation (CLF); Mothers Out Front (MOF); Associated Industries of Massachusetts (AIM); National Consumer Law Center (NCLC);

¹ The Department states: “Through this proceeding the Department will solicit utility and stakeholder input and develop a regulatory and policy roadmap to guide the evolution of the gas distribution industry, while providing ratepayer protection and helping the Commonwealth achieve its goal of net-zero GHG emissions energy.” NOI at 4.
Low-Income Energy Affordability Network (LEAN); Gas Leaks Allies; and Town of Hopkinton. The RFP is designed to solicit proposals for consultant(s) for the development of the Report and LDC-specific proposals in connection with the Department’s investigation in D.P.U. 20-80. The RFP was issued by the LDCs on February 5, 2021.

B. Development and Implementation of a Stakeholder Process

**Department Directives:** In its NOI, the Department directed that the independent consultant(s) selected by the LDCs should be ready to review the Roadmaps, identify any pathways not examined in the Roadmaps, and perform a detailed study of each LDC that analyzes the feasibility of all pathways. NOI, at 5. The Department further directed that it “expects a complete, comprehensive analysis of each LDC regardless of the size of an LDC, with individual analyses integrated into one, collective report that performs meaningful comparisons among the LDCs.” Id. The Department directed the LDCs to submit a proposal to the Department, on or before March 1, 2022, that includes the LDC’s recommendations and plans for helping the Commonwealth achieve its 2050 climate goals, supported by the Report. Id. at 6. With their proposals, the LDCs must submit the Report, analysis, and supporting data to the Department for review. Id.

The Department further directed that, prior to filing the Report and the LDCs’ proposals, the LDCs **shall engage in a stakeholder process to solicit feedback and advice on both the Report and the proposals.** Id.

*The LDCs contemplate a two-phase process to fulfill this directive:*

**Phase 1: Development of Stakeholder Engagement Process**

**Objective:** To develop a process that will invite, encourage, and enable broad, meaningful engagement by interested stakeholders, including low and moderate-income customer groups and disproportionately impacted communities, in relation to the development of the Report and the LDC-specific Proposals.

**Coordination to Develop Process:** The LDCs are working with the stakeholders engaged in the RFP consultation process to develop the Stakeholder Engagement Process to be used in “Phase 2: Implementation of the Stakeholder Engagement Process.” This process provides multiple opportunities for interested stakeholders to share their input, to ask questions and to have meaningful dialog with the LDCs.

The issues for resolution include the following:

- Identification of stakeholders for participation in Phase 2 objective.
- Development of a Stakeholder Engagement Process, to achieve the following:

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2 The Department also intends to provide an opportunity for stakeholder comments on the LDCs’ proposals. Id.
a) Encourage broad and diverse stakeholder engagement, including partnerships with advocacy and community organizations as well as individuals and groups that have not previously participated in the regulatory process.

b) Minimize and/or mitigate barriers to participation (e.g., format/medium of the forum, timing, frequency of opportunities to engage, location, language, etc.).

c) Facilitate inclusion of disproportionately impacted communities, hard to reach groups, and groups typically unrepresented or underrepresented in regulatory processes or proceedings.

d) Assure that the applicable information and material is accessible to and understandable by non-experts.

e) Provide a range of meaningful opportunities for participation (e.g., written comments, public listening sessions, webinars, virtual town hall meetings, regular updates, dedicated website to launch in June, dedicated toll-free telephone number, online surveys, etc.)

Several stakeholders have provided feedback and suggestions to achieve these objectives. The LDCs and the Facilitator have considered all feedback and suggestions given to date. Most recommendations are incorporated in the SEP. If recommendations were not incorporated, the LDCs have provided the reason why they were not incorporated. Additional feedback and responses, as well as comments and considerations, will be tracked. A summary of comments and responses will be shared with the stakeholder group on an agreed upon schedule. The straw proposal will be updated accordingly.

The LDCs are committed to continual consideration of all feedback and recommendations shared by the stakeholders.

**Timing:** The LDCs shared the proposed Stakeholder Engagement Process on March 9, 2021. Stakeholders provided feedback on the straw proposal by March 23, 2021. The LDCs planned to respond to stakeholders by April 9; however, the deadline was extended to April 23, at which time a matrix providing the LDC’s responses to stakeholder feedback regarding the Stakeholder Engagement Process was shared with the stakeholders. The LDCs and stakeholders will work collaboratively to reach a consensus on the Stakeholder Engagement Process, on or before May 28, 2021.

**Phase 2: Implementation of Stakeholder Engagement Process**

**Objective:** To conduct a process that will encourage and enable broad, meaningful engagement by interested stakeholders, including low and moderate-income customer groups and disproportionately impacted communities, in relation to the development of the Report and the LDC-specific Proposals.
Straw Proposal on Stakeholder Engagement Framework

Stakeholder Engagement Framework: The Stakeholder Engagement Framework would involve the following elements to encourage and enable “feedback and advice” by stakeholders on the process to develop the Report and the LDC proposals.

a) The LDCs hired a facilitator to assist in conducting the Stakeholder Engagement Process, to enable participation and meaningful input by a range of participants based on established identification tools to include a diverse group of participants. A facilitator will assist the LDCs to organize, conduct, and document stakeholder input; moderate feedback sessions; manage associated touchpoints; and assure meaningful opportunities for stakeholder involvement. The LDCs expect that the facilitator will be able to leverage their expertise and experience to work with the LDCs as the Stakeholder Engagement Plan is developed to augment the straw proposal below. The objectives of the LDCs, with assistance from the facilitator, will be to:

i. Encourage broad and diverse stakeholder engagement through partnerships with advocacy and community organizations and through Stakeholder Mapping of the Commonwealth of Massachusetts. EJSCREEN, a tool developed by the US Environmental Protection Agency (EPA), will be used to conduct Stakeholder Mapping. EJSCREEN is based on “nationally consistent data and an approach that combines environmental and demographic indicators in maps and reports.” EJSCREEN is used to support engagement and outreach practices.³

ii. Minimize and/or mitigate barriers to participation (e.g., format/medium of the forum, timing, frequency of opportunities to engage, location, language, accessibility, etc.).

iii. Facilitate inclusion of disproportionately impacted communities, hard to reach groups, and groups typically unrepresented or underrepresented in regulatory processes or proceedings. This outreach will be conducted utilizing traditional research methods and established tools for stakeholder identification. The facilitator will also solicit input from the stakeholder group regarding additional stakeholder representation.

iv. Assure that the applicable information and material is accessible and easily understood.

v. Provide a range of flexible, yet meaningful, opportunities for participation (e.g., written comments, public listening sessions, webinars, virtual town hall

³ For more information, please see https://www.epa.gov/ejscreen https://www.epa.gov/ejscreen.
meetings, regular updates, dedicated website, dedicated toll-free telephone number, online surveys, and 1:1 meetings as appropriate and feasible, etc.)

b) LDCs will conduct a selection briefing on consulting decision. LDCs will make a presentation on the results of the competitive solicitation and basis for selection.

c) LDCs will conduct a pre-study, kick-off meeting with stakeholders and consultant(s) to make introductions and review work plan strategy and expectations.

d) LDCs and stakeholders will develop a Meeting Agreement to promote open conversation and set expectations regarding meeting engagement.

e) LDCs will conduct periodic meetings designed to engage stakeholders with varying levels of interest and expertise and to accommodate preferred ways of participating. To that end, the LDCs have segmented the stakeholders into three broad groups: A Policy/Technical group, a Communities group, and a Customer group. Meeting for each group may have a different focus and tone, as appropriate, to allow for additional discussion on issues that may arise. Each group is designed to address topics of interest that are most important to the particular group. For example, the Customers group will focus on education related to the role of Local Distribution Companies in meeting the Commonwealth’s environmental policy goals, and the impacts and opportunities that may result for customers, as a result of the Future of Gas proceeding. The Communities group will discuss issues pertinent to the community including environmental and social justice as it relates to energy affordability, the economic impact of different approaches to complying with the Commonwealth’s clean energy policies, and other related topics. The Policy/Technical group will examine the details and policy implications of evaluated decarbonization pathways, modeling and data, among other more technical topics. Each group will be invited to share feedback and input related to the Future of Gas proceeding.

   a. LDCs will conduct a monthly meeting with the Policy/Technical Group thereafter to review activities from the past 30 days, receive stakeholder feedback on activities of the past 30 days, and obtain stakeholder input on the activities for the next 30 days. Meetings will continue through preparation of the Report and LDC-specific proposals. As needed, this meeting will be extended to accommodate an in-depth technical discussion for interested stakeholders.

   b. LDCs will work with stakeholders to identify the appropriate cadence and format for engaging the Customer Group and Communities Group. These may include community meetings, webinars, virtual town halls or other focused engagement opportunities. Webinars will be focused by topics of interest with the intention of providing education around identified topics or concepts. Webinars will be, recorded and posted on the website for accessibility following each meeting. Community meetings will also be focused on topics of interest identified by
community stakeholders, with the intent of having a meaningful dialogue with participants.

c. The LDCs and facilitator will work to make sure other opportunities for participation are available, such as those mentioned in Section (a)(v) above, in the event participants are unable to attend the monthly meetings or other focused engagement opportunities.

f) Scope of Input: Through these meetings stakeholders will have the opportunity to provide input on relevant and emerging issues, including:

i. Potential alternative thermal building sector decarbonization strategies;

ii. Potential regulatory considerations;

iii. Potential LDC operational and business modifications;

iv. Potential workforce redirection/retraining; and

v. Other topics identified by the stakeholders, LDCs, consultant, and or facilitator.

g) Stakeholder will have the opportunity to provide input on these topics through a number of methods, including but not limited to meeting discussion and those described below in g, h and i. Stakeholder feedback will be received using Smart Comment, a web-based platform, housed on the Future of Gas website. Smart Comment is a public comment software used by a variety of federal, state, and local governmental agencies nationwide to receive the public’s comments and manage them appropriately. Feedback received via SmartComment, the dedicated toll-free number and dedicated email address will be collected on a comment grid and responses will be posted to the website.

h) LDCs or the facilitator will prepare and distribute, at least one week in advance, a proposed Agenda of topics/issues for each meeting, as well as presentation materials to be discussed at the meeting. If meeting participants want to share materials at the meeting, they will be asked to provide materials related to the proposed agenda at least one week in advance of the meeting and any other materials as early as possible. After each meeting, LDCs or the facilitator will share a meeting summary as well as drafts of the “summary of engagement” to be submitted to the Department as part of status updates (D.P.U. 20-80-A at 16).

i) LDCs will share a draft of the Report with stakeholders, provide stakeholders with best effort timing, no less than 2 weeks to review the draft Report, and provide opportunities for stakeholders to provide feedback on the draft Report. The facilitator will work with the LDCs and stakeholders to agree to a workable review timeline and will utilize various

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4 For more information, please see https://www.smartcomment.com/.
communication mechanisms, including but not limited to, electronic mail to an email address dedicated to the project, dedicated toll-free telephone number, and online feedback forms.

j) LDCs will handle all logistics and meeting arrangements based on input from the stakeholder group related to format, time, accessibility, etc.
Attachment 2
Joint Comments Regarding DPU Docket 20-80 Stakeholder Process Proposal

Thank you for developing a plan for the stakeholder process for the next year of work on DPU Docket 20-80.

We have the following overall recommendations:

The process must include a commitment to incorporate stakeholder feedback and technical expertise into the analysis and report as well as show the reasons input is not used. As outlined, the plan could result in any number of stakeholder meetings with no stakeholder input incorporated.

We propose an alternative approach to create a plan that is thorough and will benefit both the LDCs and the communities. We suggest using guidelines such as the AP2 Spectrum of Public Participation with a goal of collaborating so that the plan incorporates the community stakeholder recommendations into the decisions to the maximum extent possible, whereby:

- The LDCs, consultants, and the stakeholders jointly develop alternatives and preferred solutions.
- The LDCs are transparent about what input they incorporate into the plan. This is more likely to yield broad public support.

Specifically:

- To ensure a meaningful and broad stakeholder process, LDCs need to segment their stakeholder expertise list to ensure input is truly broad and meets the stated goals of the process. We have provided a list of recommended categories and particular organizations and individuals at the end of the document.

- To effectively include broad, varied expertise, we recommend following the successful stakeholder process used by the City of Boston to develop a recent buildings ordinance.
  - A community advocates group focused on the impact plans would have on all communities with emphasis on environmental justice populations and directly on low and moderate-income residents.
  - A technical advisory group focused on data, research, and technological solutions.
  - Labor leaders should be part of both groups, as gas workers are both directly impacted by and expert in gas transition issues.
Detailed comments:

- **Phase 1: Development of Stakeholder Engagement Process - Comments**
  - Section b): To minimize and/or mitigate barriers to participation as well as thinking of the process barriers, compensation should be offered to some community members for their time. The LDCs should work with municipalities and community leadership to identify the most accessible format of meetings, whether virtual, in person, or both.

- **Phase 2: Implementation of Stakeholder Engagement Process**
  - Begin by jointly developing a set of principles by which decisions will be weighed. These could include solutions which reduce the most carbon, maintain family-sustaining jobs, improve public health, feasibility, and cost to ratepayers. Principles should be developed with leadership from community organizations and municipal representatives.
  - Section a): For “meaningful input by a range of participants,” identify stakeholders by categories (suggested categories below) to ensure representation and input from key stakeholder groups.
  - Section a) bullet v: Provide more detail on what is meant by “participation will include a range of high commitment and lower commitment opportunities.”
  - Section d): Provide a timeline for monthly meetings, record the meetings, and make all the meeting materials publicly available. Meeting agendas should be publicly available and posted online one week in advance and translated into multiple languages with an invitation for people to request language interpretation. Meetings should have interpreters available and use an accessible virtual platform that allows for simultaneous interpretation. There should be a notetaker for each meeting, and notes should be publicly posted and translated.
  - Section e): Provide monthly reports with stakeholder engagement from the various stakeholder segments to ensure accountability around including a wide range of stakeholders, particularly low and moderate-income customer groups, Section e): Focus community stakeholder meetings on discussion of the impact of proposed solutions on environmental justice populations and low and moderate-income residents with active participation from community groups. Hold separate technical advisory meetings on proposed technical solutions.
  - Add a section between e) and f) to provide full access to the data used by the consultants and LDCs to ensure a credible, fully transparent process.
  - Section f) on scope of input: Specify how the input from stakeholders will be incorporated into monthly and final reports to ensure a collaborative, integrated stakeholder process rather than a “check the box” approach and ensure that such input reflects the principles.
Recommended stakeholder groups and potential people to include in the Stakeholder Process

- **NGOs focused on gas/utility issues**
  - Coalition leaders from Gas Leaks Allies
  - Conservation Law Foundation
  - Sierra Club
  - PLAN
  - Mothers Out Front

- **Municipalities in addition to the Town of Hopkinton**
  - Towns that have experienced gas explosions: Springfield, Lexington, Merrimack Valley-Lawrence, Andover, North Andover
  - Towns in RMI accelerator: Brookline, Arlington, Somerville
  - Towns with gas expansion projects: Springfield, Longmeadow, Weymouth, Ashland, Westborough
  - Large cities: Boston, Worcester, Springfield, Lowell

- **Environmental Justice / Community members**
  - Kannan Thiruvangan, Eastie Farm
  - Andrea Nyamekye, Neighbor to Neighbor
  - Tanisha Arena, Arise for Social Justice
  - Maria Belen Power, GreenRoots
  - Sabrina Davis, Coalition for Social Justice
  - Dwaign Tyndal, Alternatives for Community & Environment
  - Lee Matsueda, Community Labor United

- **Labor - Steelworkers/NEGWA, Laborers Council**
- **ICCR** member/ethical investor and shareholder
- **Ceres** - MA policy and utilities teams: John Carlson, Dan Bakal
- **Developer - HYM Investment Group (Suffolk Downs developer), Joe Savage, (Franklin Place Associates)**
- **Legislators - Jay Livingstone, Carolyn Dykema, Michelle DuBois, Liz Miranda, Lori Ehrlich**
- **Health Impacts - Greater Boston Physicians for Social Responsibility (Andee Krasner, Brita Lundberg)**

**Recommendations for Technical Advisory Committee participants**

*Renewable Energy Systems:*
  - Renewable Energy experts - Acadia Center, RAPOnline
  - Renewable Thermal experts

*Alternatives to current gas system:*
  - GeoMicroDistrict & GeoGrid experts - HEET
  - Networked Geothermal design and installation experts - Grey Edge Group (Cary Smith)
Methane experts - Boston University(Prof. Nathan Phillips), Cornell University(Prof. Howarth)
Biogas expert - MWRA re: RNG plant on Deer Island
Hydrogen experts - Union of Concerned Scientists

Economics of gas system & gas system transition:
Utility economics experts (primarily electric)- Synapse Energy Economics (Asa Hopkins)
Economists that specifically understand gas utilities, their financial structure and how capital investments are paid for - Dorie Seavey (Climate Economist), Steve Bryant (ex President of Columbia Gas)
Finance/investor expert on business transformation

Existing gas system maintenance and safety needs:
Pipeline materials & safety expert - Dan Cote (retired, NiSource), Gas Safety Inc.
Gas pipeline leakage and strategies for methane emissions reduction - HEET
Fire chief or association leader
Public Health Impacts of gas system - Harvard T.H. Chan School of Public Health (Jack Spengler, Jonathon Buonocore)

Thank you for the opportunity to comment on the process, we look forward to discussing next steps.

Debbie New, Co-coordinator Gas Leaks Allies
Ania Camargo, Co-coordinator Gas Leaks Allies
Caitlin Peale Sloan, Conservation Law Foundation
Priya Gandbhir, Conservation Law Foundation
1. The meeting will start on time and end on time.

2. Stakeholders will have the option to submit questions in advance via multiple methods (dedicated toll-free telephone number, dedicated email address and website feedback form).

3. Members will share openly and take other’s perspectives into consideration.

4. Each stakeholder group will identify one member to speak for the group. Each member will receive three minutes to speak, allowing each member to have an opportunity to participate. Speakers may have an additional opportunity to speak after all members have spoken and time permits.

5. Remarks must pertain to the meeting topic and/or scope of work. Project specific concerns are not part of the scope of this proceeding and will be addressed outside of this meeting.

6. Meeting agendas will be prepared and posted to the website one week prior to the meeting.

7. Meeting minutes will be prepared and posted to the website no later than one week following the meeting.

8. The stakeholder identification process and input from participating stakeholders will help identify the need for accommodations related to translation services, meeting logistics, etc.

9. Meeting topics will be identified collaboratively between the stakeholders and LDCs.

**GOAL:** To conduct a process that will encourage and enable broad, meaningful engagement by interested stakeholders, including low and moderate-income customer groups and disproportionately impacted communities, in relation to the development of the Report and LDC-specific proposals.
To: Kristi Moore and LDC Representatives

We have reviewed the revised stakeholder process and appreciate that some of the comments from our first meeting were included in the latest version. However, to achieve the stated goal of a “process that will encourage and enable broad, meaningful engagement by interested stakeholders”, key components are still missing.

We respectfully request that the stakeholder process add the statements below as a way to guarantee stakeholder voices are heard, and that our involvement is not nominal. We believe that these requirements stem from and build upon the framework already laid by the Attorney General’s Office, DOER, the LDCs, and ERM, and thus should not be controversial.

The following items are critical and must be part of the process:

1. All meetings held under the stakeholder process will a) be recorded, with public access to recording on stakeholder process website, and b) have minutes taken, circulated for proposed revisions, and publicly available on stakeholder process website.

2. The LDCs will provide full and timely transparency of all data, analytical decisions, and assumptions underlying the consultants’ analysis. Stakeholders will have an opportunity to provide feedback on the assumptions underlying the analyses, and to periodically request that E3 conduct sensitivity analyses to consider the impacts of alternative assumptions to be specified by non-utility stakeholders.

3. The LDCs will support the ability of any stakeholder group to file an update letter in the D.P.U. 20-80 docket at the same time as the LDC filings ordered by the Department (September 1, 2021, and March 1, 2022).

4. In addition to the large public group meetings, the LDCs through ERM will convene small group discussions on discrete topics at the request of the LDCs or stakeholders. ERM will ensure that topic-based discussions include representation from subject matter experts on the topic and people or groups most impacted by topic.

The following items would improve the process:
5. Within the final report and any formal interim reporting, ERM and the LDCs will include a high-level synopsis of stakeholder feedback and findings from the monthly stakeholder meetings and stakeholder sub-groups.

6. The stakeholder groups will be expanded beyond “Policy/Technical”, “Communities”, and “Customer” recommended in the May 14th proposal to ensure meaningful input and dialogue. There will be separate “Technical” and “Policy” stakeholder groups as well as other expert groups as needed, such as “Labor”. The stakeholder document will contain a brief definition of each group (e.g. a definition of the “communities” sub-group as distinct from the “customer” sub-group).

7. LDCs and/or the Consultant will respond to the feedback from stakeholders received via the range of opportunities outlined in the stakeholder process document (e.g. monthly stakeholder meetings, interest group meetings, written comments, etc.).

8. ERM and the LDCs will take in and incorporate feedback on a rolling basis regarding the methods used to contact and solicit feedback from community stakeholders. To start, this will include ensuring as a technical matter that meeting invites appear on the calendars of folks who use Gmail rather than Outlook, and creating communication pathways that do not require access to email (for instance, using WhatsApp).

Thank you for your attention to this matter.

Sincerely,

Stakeholders representing:
CLF
Eastie Farm
Gas Leaks Allies
Mothers Out Front
Sierra Club
Attachment 5
1. The meeting will start on time and end on time.

2. Stakeholders will have the option to submit questions in advance via multiple methods (dedicated toll-free telephone number, dedicated email address and website feedback form).

3. Members will share openly and take other’s perspectives into consideration.

4. A three minute window per speaker will serve as a guide to ensure each person who would like to contribute has an opportunity to do so. Free flowing and productive discussions and questions are encouraged. Time constraints (three minute-rule) will be considered when comments are repetitive or non-constructive. Speakers may have an additional opportunity to speak after all members have spoken and time permits.

5. Remarks must pertain to the meeting topic and/or scope of work. Project specific concerns are not part of the scope of this proceeding and will be addressed outside of this meeting.

6. Meeting agendas and presentations to be discussed at the meeting will be prepared and posted to the website at least one week prior to the meeting.

7. Meeting summaries and other related materials will be prepared and posted to the website no later than one week following the meeting.

8. The stakeholder identification process and input from participating stakeholders will help identify the need for accommodations related to translation services, meeting logistics, etc.

9. Meeting topics will be identified collaboratively between the stakeholders and LDCs.

**GOAL:** To conduct a process that will encourage and enable broad, meaningful engagement by interested stakeholders, including low and moderate-income customer groups and disproportionately impacted communities, in relation to the development of the Report and LDC-specific proposals.
Attachment 6
Mothers Out Front

<table>
<thead>
<tr>
<th>Proposed Revision/Comment</th>
<th>LDC Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide more specificity and clarity around the range of stakeholders to be engaged by this process, any plan to segment stakeholders, and a timeline for engagement.</td>
<td>The LDCs understand the need to engage a wide and diverse range of stakeholders and are committed to enabling meaningful input through the development of a robust stakeholder process. This process will provide numerous opportunities for open and honest dialogue among participants and with the LDCs.</td>
</tr>
<tr>
<td>Identify a process for segmenting and engaging diverse stakeholders</td>
<td>The LDCs have engaged a facilitator to ensure participation of a diverse and representative stakeholder group. The Stakeholder Engagement Process will seek to reduce participation barriers by providing a variety of opportunities for participation.</td>
</tr>
<tr>
<td></td>
<td>The facilitator will assist this process and engage hard to reach customers through research and the utilization of established tools.</td>
</tr>
<tr>
<td></td>
<td>The facilitator will identify language and/or other communication barriers and will use translators and communications technologies.</td>
</tr>
<tr>
<td></td>
<td>The Stakeholder Engagement Process will begin by engaging with those who have filed</td>
</tr>
<tr>
<td>Proposed Revision/Comment</td>
<td>LDC Comment</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>• Provide additional detail on process transparency. Phase 2 is a bare outline and needs a timeline, targets for engagement, and detail on commitment to public open meetings, recordings, meeting materials, language translation and availability of analyses and data for presentations and reports</td>
<td>The LDCs agree that there needs to be more detail on logistics. A facilitator will assist in the design and documentation of the stakeholder process. The LDCs will work with the facilitator to develop targets for engagement so that participants will have a better understanding of their roles and expectations. The LDCs are committed to transparency and will evaluate various platforms such as:</td>
</tr>
</tbody>
</table>
### Proposed Revision/Comment

Website, virtual meetings, webinars, unpaid focus groups and one-on-one discussions to promote open dialogue, solicitation of comments and direct stakeholder interaction.

Consideration of options for populations without easy web access

Translation services will be provided following identification of primary language(s) spoken in the community.

Outreach schedule will be determined with stakeholder input; however, the LDCs propose monthly meetings as well as opportunities for real-time comments and feedback to be captured using web-based platforms.

The LDCs will engage stakeholders regularly, no less than monthly, to provide updates and to review communications received. Additionally, the LDCs will respond to and consider feedback received through the various feedback platforms.

The proposed timeline for formal stakeholder engagement will begin in May/June 2021 and continue through development and review of the final report.
<table>
<thead>
<tr>
<th>Proposed Revision/Comment</th>
<th>LDC Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The LDCs are committed to a transparent process, managed by a third-party facilitator, to ensure opportunities for open discussion among participants.</td>
<td>The facilitator will be responsible for meeting flow, allowing for all perspectives to be heard; managing the process; documenting and recording feedback during each session; and relaying correspondence related to stakeholder engagement to participants and the LDCs.</td>
</tr>
<tr>
<td>The facilitator will solicit feedback from the group regarding representation and the addition of potential new groups to engage for feedback and participation.</td>
<td></td>
</tr>
<tr>
<td>Provide more detail around the processes for engaging low- and moderate-income individuals and stakeholders from disadvantaged communities. Consider translations of announcements and outreach, reimbursement of costs associated with participation i.e. transportation and childcare.</td>
<td>The LDCs recognize the importance of engaging low and moderate-income customers. Additionally, the LDCs recognize the need to consider new and novel ideas for engagement. We will work with a facilitator to determine how best to engage customers and stakeholders and limit conflicts and language barriers, including scheduling meetings outside of work hours and virtually.</td>
</tr>
<tr>
<td>The facilitator will rely on one-on-one conversations with key stakeholders to solicit</td>
<td></td>
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</tbody>
</table>
### Proposed Revision/Comment

<table>
<thead>
<tr>
<th>Proposed Revision/Comment</th>
<th>LDC Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>input regarding additional group members; meeting logistics to promote participation among members; and the utilization of established tools for community engagement.</td>
<td>input regarding additional group members; meeting logistics to promote participation among members; and the utilization of established tools for community engagement.</td>
</tr>
<tr>
<td>Provide detail on how stakeholder input will be shared and incorporated throughout the stakeholder engagement process and within the final report. Concerned with lack of accountability in the document that will lead to stakeholder voices not being incorporated.</td>
<td>The LDCs agree to transparency around stakeholder input at regular intervals.</td>
</tr>
<tr>
<td>Formally commit that stakeholder voices will influence the outcome of the process and details on guardrails</td>
<td>The LDCs agree to transparency around stakeholder input at regular intervals.</td>
</tr>
</tbody>
</table>
**Stakeholder Comments on Stakeholder Document**

### Gas Leak Allies and CLF

<table>
<thead>
<tr>
<th>Proposed Revision/Comment</th>
<th>LDC Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include commitment to incorporate stakeholder feedback and technical expertise into analysis and report and explanation for why input is not used</td>
<td>The LDCs are committed to ensuring a transparent stakeholder process. The facilitator will guide discussions based on stakeholder feedback as it relates to the process. All feedback will be reviewed by the LDCs and responses will be compiled and shared on an agreed upon schedule and uploaded to the project website for public consumption.</td>
</tr>
<tr>
<td>Proposes alternative approach to developing the plan by using the AP2 Spectrum of Public Participation to incorporate the community stakeholder recommendations into decisions whereby the LDCs, consultants, stakeholders jointly develop alternatives and solutions and LDCs are transparent about what input is included in plan</td>
<td>Utilizing a third-party facilitator to develop and manage a comprehensive Stakeholder Engagement Process provides assurance that stakeholder input is received and responses are shared with the group. As outlined in the draft Stakeholder Engagement Plan, the LDCs are committed to public engagement utilizing a balanced approach for stakeholder input. The LDCs must also take into consideration their long-standing obligation to provide safe and reliable service to customers. The LDCs must consider the feasibility and costs associated with the recommendations.</td>
</tr>
<tr>
<td>Segment the stakeholder expertise list into: (1) community advocates group; (2) technical advisory group, (3) labor leaders</td>
<td>The LDCs agreed upon a process that drives efficiency and recognizes the potential value of segmenting customer groups. To assist in this task the LDCs have retained a facilitator to assist the design and documentation of the stakeholder process to</td>
</tr>
<tr>
<td>Proposed Revision/Comment</td>
<td>LDC Comments</td>
</tr>
<tr>
<td>---------------------------</td>
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</tr>
<tr>
<td>Phase I: Section b – C</td>
<td>ensure all interested stakeholder groups have an opportunity to provide input.</td>
</tr>
<tr>
<td>Compensate some stakeholders’ time.</td>
<td>The LDCs will work with the-facilitator to determine how best to engage customers and stakeholders and limit conflicts and language barriers, including scheduling meetings outside of work hours and virtually.</td>
</tr>
<tr>
<td>Work with municipalities and community leaders to determine most accessible format for meetings</td>
<td></td>
</tr>
<tr>
<td>Phase II:</td>
<td>The LDCs have engaged a facilitator to assist in the design and documentation of the stakeholder process.</td>
</tr>
<tr>
<td>Jointly develop a set of principles by which decisions will be weighed:</td>
<td>LDCs agree that there will be high versus low commitment opportunities for engagement.</td>
</tr>
<tr>
<td>• Section a) identify stakeholders by categories for “meaningful input by a range of participants”</td>
<td></td>
</tr>
<tr>
<td>• Section a) bullet v. more detail on high commitment and low commitment opportunities</td>
<td>Additionally, the facilitator will be responsible for preparing meeting materials and follow-up reports. The facilitator will also manage the meeting process including capturing feedback and ensuring translation services are available, as necessary.</td>
</tr>
<tr>
<td>• Section d) provide a timeline for monthly meetings, record meetings, make all meeting materials public, agendas posted one week in advance in multiple languages, interpreters should be used in meetings, notes should be taken in meeting and made available</td>
<td>Meeting frequency will be determined with stakeholder input to promote participation and meaningful dialogue but will not be less than monthly.</td>
</tr>
<tr>
<td>• Section e) provide monthly reports on stakeholder engagement from various stakeholder segments</td>
<td></td>
</tr>
<tr>
<td>• Add a section on providing full access to data used by consultants and LDCs</td>
<td></td>
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<tr>
<td>• Section f) on scope of input specify how input from stakeholders will be incorporated into monthly and final reports</td>
<td></td>
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<tr>
<td>• Include recommended stakeholders, including recommended technical advisory group participants</td>
<td>See above</td>
</tr>
</tbody>
</table>
**Town of Hopkinton**

<table>
<thead>
<tr>
<th>Proposed Revision/Comment</th>
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</tr>
</thead>
<tbody>
<tr>
<td>• Claims the stakeholder process document is lip service and window dressing</td>
<td>The Town of Hopkinton is encouraged to participate and provide input into the process. Relevant questions will be answered and process/stakeholder recommendations will be considered.</td>
</tr>
<tr>
<td>• Reiterates previous comments on D.P.U. 20-80 process</td>
<td></td>
</tr>
<tr>
<td>• Reiterates disagreement with stakeholders not being involved in selection of consultant</td>
<td>The LDCs agree to a comprehensive and transparent process but disagree with the recommendations.</td>
</tr>
<tr>
<td>• Recommends direct access to the consultant by stakeholders</td>
<td>The LDCs will coordinate with the stakeholders regarding the time available to review the final draft report.</td>
</tr>
<tr>
<td>• Asserts having all information pass from stakeholders through the facilitator will be detrimental</td>
<td></td>
</tr>
<tr>
<td>• Seeks additional clarity on how stakeholder feedback will be incorporated. At the very least, include details on how the stakeholder input is incorporated or why it is not included</td>
<td></td>
</tr>
<tr>
<td>• Two weeks to review the final draft report is not sufficient</td>
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</tbody>
</table>
New England Gas Workers Association

<table>
<thead>
<tr>
<th>Proposed Revision/Comment</th>
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<tbody>
<tr>
<td>• Each LDCs’ unionized workforce should participate in the process</td>
<td>Agree with union representatives’ participation</td>
</tr>
<tr>
<td>• Stakeholder input should be permitted on the consultant’s workplan strategy at the outset and at least quarterly</td>
<td>Agree with calendar of sessions and issues with the caveat that they are subject to change/evolve as the process goes on</td>
</tr>
<tr>
<td>• Implement concrete calendar of focused group sessions with different segments to address relevant and emerging issues</td>
<td></td>
</tr>
<tr>
<td>• Amend Scope of Input (p.4) to include workforce attrition, recruitment, development, continuity and transition strategies</td>
<td>The LDCs will ask the consultant to consider the impact of each suggested pathway on the workforce</td>
</tr>
<tr>
<td>• Consider how LDCs workforce can be trained and utilized over the next 30 years</td>
<td></td>
</tr>
<tr>
<td>• Consider how to transition workforce and mitigate impact on Commonwealth’s workforce</td>
<td></td>
</tr>
<tr>
<td>Proposed Revision/Comment</td>
<td>Comments</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>• Important to have those who have historically not participated be involved in the process</td>
<td>Agreed</td>
</tr>
<tr>
<td>• Make clear there will be ample opportunity to be involved through a variety of opportunities and alternative means</td>
<td>Agreed</td>
</tr>
<tr>
<td>• Stakeholders need more than two weeks to review the final draft report</td>
<td></td>
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</tbody>
</table>
Attachment 7
<table>
<thead>
<tr>
<th>Requested SEP Addition</th>
<th>Accepted? If not, an explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All meetings held under the stakeholder process will a) be recorded, with public access to recording on stakeholder process website, and b) have minutes taken, circulated for proposed revisions, and publicly available on stakeholder process website.</td>
<td>Accepted, in part – meetings are recorded and a summary of the meeting is posted to the website. (SEP at page 5). This will result in a more accurate reflection of the meetings than taking minutes of the meetings and obviates the need to review meeting notes for accuracy.</td>
</tr>
<tr>
<td>2. The LDCs will provide full and timely transparency of all data, analytical decisions, and assumptions underlying the consultants’ analysis. Stakeholders will have an opportunity to provide feedback on the assumptions underlying the analyses, and to periodically request that E3 conduct sensitivity analyses to consider the impacts of alternative assumptions to be specified by non-utility stakeholders.</td>
<td>Accepted, in part – the LDCs will provide full and timely transparency of publicly available data underlying the consultant’s analysis. Stakeholders will have an opportunity to provide feedback on the assumptions underlying the analyses. Stakeholders will have an opportunity to offer an alternative analysis and will be provided an opportunity to request a limited amount of sensitivity analyses on the alternatives chosen by the LDCs. Comments may be submitted throughout the SEP via phone, email or the comment form (SmartComment) available at <a href="http://www.thefutureofgas.com/contact">www.thefutureofgas.com/contact</a>. Questions and comments will be made public on the site.</td>
</tr>
<tr>
<td>3. The LDCs will support the ability of any stakeholder group to file an update letter in the D.P.U. 20-80 docket at the same time as the LDC filings ordered by the Department (September 1, 2021, and March 1, 2022).</td>
<td>Accepted. It is the Distribution Companies’ position that they do not need to “support” stakeholders filing their own update with the Department. Stakeholders are free to submit comments to the Department.</td>
</tr>
<tr>
<td>4. In addition to the large public group meetings, the LDCs through ERM will convene small group discussions on discrete topics at the request of the LDCs or stakeholders. ERM will ensure that topic-based discussions include representation from subject matter experts on the topic and people or groups most impacted by topic.</td>
<td>Accepted – see Section a)v. (SEP at page 4) and Section e) (SEP at page 5)</td>
</tr>
<tr>
<td>5. Within the final report and any formal interim reporting, ERM and the LDCs will include a high-level synopsis of stakeholder feedback and findings from the monthly stakeholder meetings and stakeholder sub-groups.</td>
<td>Accepted. Comments received via the SEP will be included as an addendum to the final report.</td>
</tr>
<tr>
<td>6. The stakeholder groups will be expanded beyond “Policy/Technical”, “Communities”, and</td>
<td>Accepted. Additional stakeholder groups were incorporated into the final SEP based on stakeholder feedback. The stakeholder groups</td>
</tr>
</tbody>
</table>
“Customer” recommended in the May 14th proposal to ensure meaningful input and dialogue. There will be separate “Technical” and “Policy” stakeholder groups as well as other expert groups as needed, such as “Labor”. The stakeholder document will contain a brief definition of each group (e.g. a definition of the “communities” sub-group as distinct from the “customer” sub-group).

Webinars and 1:1 meetings (separate from the pre-defined monthly stakeholder meetings) will be scheduled to solicit input from stakeholders who do not participate in the process or who are not familiar with the proceeding.

<table>
<thead>
<tr>
<th>7. LDCs and/or the Consultant will respond to the feedback from stakeholders received via the range of opportunities outlined in the stakeholder process document (e.g. monthly stakeholder meetings, interest group meetings, written comments, etc.).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted – Section g) (SEP at 6)</td>
</tr>
</tbody>
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<table>
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<tr>
<th>8. ERM and the LDCs will take in and incorporate feedback on a rolling basis regarding the methods used to contact and solicit feedback from community stakeholders. To start, this will include ensuring as a technical matter that meeting invites appear on the calendars of folks who use Gmail rather than Outlook, and creating communication pathways that do not require access to email (for instance, using WhatsApp).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted – Section g) (SEP at 6). Comments and feedback are welcome at any point in the stakeholder process. Meeting invites may be downloaded via an .ics file from the <a href="#">website</a>. This file type is compatible with a variety of calendar/meeting platforms.</td>
</tr>
</tbody>
</table>
August 31, 2021

VIA ELECTRONIC MAIL ONLY
Poppy Milliken
ERM, on behalf of the Future of Gas
futureofgas@erm.com

Dear Future of Gas Consultants:

The undersigned stakeholders respectfully provide the comments and recommendations below for improvement of the scenarios presented at the stakeholder meeting held on August 24, 2021. The scenarios will help provide Massachusetts gas utilities (“local distribution companies” or “LDCs”) with information necessary to file required proposals in Massachusetts Department of Public Utilities (“DPU”) Docket No. 20-80, the Department’s investigation into the future of LDC operations in the Commonwealth.

Preamble

We thank the LDCs, E3 and Scott Madden for their work and appreciate the difficulty of this undertaking in considering how to decarbonize the gas system (DPU 20-80). We understand what an extraordinarily difficult problem it is, in terms of economics, emissions and people. (We also recognize that hosting stakeholder meetings on Zoom increases the difficulty of communication and connection. Please accept our empathy.)

We understand this undertaking is critically important. The analysis, and the actions that follow it, will impact not only the LDCs, but also their workers and customers and particularly the low-income customers who currently depend on heat being delivered at a low cost. A strong business model needs to be found and we all need to move toward that model in an efficient and synergistic manner. It is because of the critical importance of this analysis and this undertaking that we offer these comments.

Our hope is that the results of these pathways will bring clarity about the best way forward. Without that clarity, when the DPU opens its investigation there will be confusion and conflict. Instead, we would like to find agreement among all of us, for when we reach that agreement, we will know we have found true common ground. This hopefully will be on the best path forward, one where we are most likely to be able to meet the needs of the future.
Critical Elements Missing from the Proposed Scenarios

Include 100% Decommissioning of the Gas Distribution System

To ensure gas utilities and their customers can transition to using a new non-emitting low-cost thermal energy, we must allow for all options to be on the table. Analysis under this proceeding must include geographically optimized and phased 100% gas decommissioning scenarios to achieve Massachusetts’ climate mandates. The future of gas in Massachusetts cannot be adequately assessed without scenarios that fully decommission the use of the gas distribution system in the Commonwealth by 2050. At least two scenarios must be added that cease gas pipeline operations on short term and longer-term time scales, while still providing heating to gas customers and a just transition for the gas utility workforce. One of these scenarios should include replacement of distal, constrained, or aging gas infrastructure with GeoBlocks wherever financially feasible, interconnecting them to build up a GeoGrid. This could result in more work for gas workers, lower cost energy for customers and greater profit for the LDCs. The proposed “targeted & optimized electrification” scenario is not sufficient to address the mechanisms, implementation costs, and long-term cost savings to fully decommission gas infrastructure in Massachusetts.

Prohibit Expansion of Existing Infrastructure as Soon as Possible

The study should compare the costs associated with continued expansion of the gas system out to 2027 relative to halting expansion in 2023 at the conclusion of the 20-80 process. We recognize that use of 2027 reflects the assumptions in the Commonwealth’s Roadmap, but it is reasonable to assume that, as the Roadmap analysis found, a significant finding of the 20-80 process will be that continued expansion of the gas system out to 2027 will result in greater costs for consumers who remain on the gas system due to legacy equipment and assets. The costs of continued expansion past the conclusion of the 20-80 process are likely in the billions and avoidance of these costs should be a focus of this work. All scenarios evaluating customer exits from the gas system should evaluate the timing of ending expansion in 2023 vs 2027.

Given this stranded cost risk, it would be prudent for EEA and its sub-agencies to issue a moratorium on gas system expansion and to impose stays of all expansion-related proceedings at the EFSB and DPU pending the conclusion of DPU Docket No. 20-80 and related proceedings.

Provide an Equitable Transition for the LDC Workforce

An additional critical element missing from the scenarios presented at the August stakeholder meeting is the labor component. While several of the proposed scenarios significantly ramp down the scale of LDC operations by 2050, which will presumably result in workforce cuts,
none explicitly address the critical need for a just transition for the LDC workforce. Numerous individuals and families in Massachusetts depend on the existing utility structure for income and employment; knowing that the present structure is unsustainable, transitioning these laborers to new employment with family-sustaining wages will be crucial.

**Address Environmental Justice Considerations**

Although the presentation to stakeholders on August 24, 2021 mentioned environmental justice concerns, the only factor noted was that of the impact to total (electric and gas) consumer heating bills. Since the electrification of everything is likely to increase peak loads and the cost of electricity, we recommend that this factor be changed to the total (electric and gas) consumer energy bills (not just heating). More importantly, we recommend adding analysis of environmental justice issues such as public health impacts by reviewing changes in factors including but not limited to: air quality, frequency of high heat days, and energy system resiliency for each scenario.

**Scenario-Specific Feedback**

**90% Reduction Scenario**

Any scenario that alters gas sales assumptions needs to include an accelerating recursive process of customer attrition as soon as the price of heating with gas exceeds that of alternatives like heating with air source heat pumps (ASHPs). It is unrealistic to expect that the majority of LDC customers would willingly continue to maintain the entire system’s fixed costs rather than converting to heat pumps (even industrial customers who can’t easily electrify are likely to either have liquefied methane gas delivered and stored or convert to biogas or green hydrogen produced and used on-site once those options are economically attractive). The only realistic customer base left for the LDCs after the cost of gas heating exceeds electric heating and industrial alternatives would be those who cannot afford to pay for a new heating system, or those who do not have the legal right to upgrade their heating systems (tenants). In this analysis, please note the characteristics of the customers left in the LDC system, total energy bills incurred, and the likely percentage of total household income spent on energy.

**Targeted & Optimized Electrification Scenario**

The targeted scenario should incorporate networked ground source heat pumps (“GeoBlocks” or “networked GSHPs”) wherever financially viable. All system growth, all gas main replacement and constraints, and a targeted phased replacement of distal ends of the gas distribution system should be incorporated in this scenario.
Where GeoBlocks are not financially viable, individual building installations of ASHPs and GSHPs should be considered. All these targeted areas should be fully disconnected from the gas system, with all appliances moved to electricity. For industrial customers where combustion is still needed, liquefied methane gas deliveries or the on-site generation and use of green hydrogen or biogas should be assumed.

**Networked Geothermal Scenario**

The presentation to stakeholders on August 24, 2021 stated that “[o]ther end-uses that are not suitable for networked geothermal systems remain connected to the gas system”. It would be financially unwise for customers, and would defeat the purpose of this analysis, if the entire gas system were to be maintained for gas stoves or clothes dryers. Where electric alternatives exist (induction cooktops and electric ovens, electric clothes dryers, electric fireplaces, etc.), the scenarios should assume that a building converted to networked geothermal would electrify all gas appliances and fully disconnect from the gas system.

**Gas Innovation Scenario**

The costs associated with any speculative technology in the “gas innovation” scenario must be rigorously developed and realistic. The decarbonized gases used in this scenario should include a detailed accounting of how the various feedstocks (i.e., biomass feedstocks for biomethane, CO2 and hydrogen for synthetic methane, and renewable energy for green hydrogen) for these gases are being sourced, as well as a life cycle GHG emissions analysis for each resource. For any RNG (renewable natural gas) used, the LDCs must also retain or purchase the environmental attributes of the gas to avoid double-counting emissions reductions. Emissions accounting in this scenario should also incorporate the continued leakage of methane or hydrogen that would be mitigated in gas decommissioning scenarios.

In addition, for this scenario, the following questions should be addressed:

- How will the modeling ensure that there is adequate green hydrogen from excess renewable energy to serve gas end uses in the context of competing uses for that excess renewable energy?
- How will the modeling account for the seasonal storage of hydrogen?
- What assumptions are being made about the availability of appliances that can run on high concentrations of hydrogen, and the cost curves associated with these technologies?
- How does this scenario account for state and local electric heat pump deployment and building electrification targets?
The Reference Scenario must account for the costs of climate inaction. The undersigned stakeholders continue to be concerned about the framing of a “reference” scenario that is not compliant with Massachusetts law. If analysis of the Reference Scenario must proceed, it should include an extensive inventory of the costs associated with inaction on the climate crisis, including damages associated with extreme weather events, food scarcity, public health impacts, economic and social impacts, and more through and beyond 2050, such that the comparison to other scenarios being evaluated is fair, comprehensive, and accurate. If it is used as a baseline situation, it should also be compared with the other scenarios to show the increase in MA jobs and infrastructure improvements that would result from decarbonization actions.

Scenarios Involving High Levels of Energy Efficiency

Extensive detail must be provided as to the basis of high levels of energy efficiency in each scenario. Considerations should include to what extent Mass Save is involved, the use of weatherization and appliance conversions, how high efficiency can be provided equitably, and how/by whom “high efficiency” will be measured. In addition, each scenario should include sensitivities to demonstrate what would happen to emissions if we do not reach high levels of energy efficiency.

Scenarios Involving Hydrogen

Inclusion of hydrogen as a distributed fuel in any scenario must include a rigorous accounting of the negative and dangerous externalities of hydrogen transportation and combustion, including health impacts from nitrogen oxides and the higher risk of pipe embrittlement and potential explosions from utilizing hydrogen compared with methane gas, as well as the costs and emissions associated with creating hydrogen-based fuel, and the leakage rate and global warming potential of leaked hydrogen from the distribution system.

Scenarios Involving Decarbonized Gas

Any degree of hydrogen or biogenic renewable gas blending into pipelines in any scenario must be compared on a cost versus emissions basis against the use of those same volumes of hydrogen or biogenic renewable gas as long duration storage for grid support during peak demand.

Scenarios Involving Electrification

All scenarios involving electrification should assume maximum levels of cost-effective demand response and load management, including new programs designed to optimize shifting of newly
electrified loads (electric vehicles, heat pumps, heat pump water heaters, etc.) to minimize impacts of electrification on peak generation and transmission and distribution.

**Additional Questions for Consultants**

In addition to the foregoing comments and recommendations, the undersigned stakeholders seek responses to the questions below. Responses should be provided in writing in advance of the September stakeholder meeting.

**Re: 100% Reduction of Greenhouse Gas Emissions**

How do you define 100% GHG reductions for the gas system? Is this solely end use, or does it also include emissions from the production of the end use fuel? Does this include leaks from the source of hydrogen, as well as the distribution pipes? If carbon sequestration is included as a strategy, is there any range of confidence that the emissions will remain sequestered for the time necessary for our climate to return to normal?

**Additional Stakeholder Requests**

To facilitate comparison of scenarios which result in different goals in different manners, please provide the results for each scenario with a breakdown of total costs per ton of carbon dioxide and in terms of impacts on total (electric and gas/thermal) household energy bills.

**Conclusion**

As described above, the undersigned stakeholders provide the foregoing with the hope that incorporating these considerations into scenario development will lead to a more successful, just, and equitable outcome in the present proceeding. We welcome any additional dialogue which may serve to improve such an outcome. Thank you for your time and attention to this matter.

Sincerely,

Caitlin Peale Sloan, Vice President, Massachusetts, *Conservation Law Foundation*
Priya Gandbhir, Staff Attorney, *Conservation Law Foundation*
Ania Carmago, *Mothers Out Front Massachusetts*
Audrey Schulman, *HEET*
Kyle Murray, Senior Policy Advocate, Massachusetts, *Acadia Center*
Deb Pasternak, Director, *Sierra Club Massachusetts*
Sarah Krame, Associate Attorney, *Sierra Club*
Andee Krasner, MPH, *Greater Boston Physicians for Social Responsibility*
Kathryn R. Eiseman, *Pipe Line Awareness Network for the Northeast (PLAN-NE)*
Patricia A. Gozemba, *Salem Alliance for the Environment (SAFE)*
Larry Yu, Co-Chair, *Climate Reality Project – Boston Metro Chapter*
Kannan Thiruvengadam, *Eastie Farm*
Nathan Phillips, *Boston University*
Charles Lidz, *No Ashland Pipeline*
Mary McAvity Cerulli, *Climate Finance Action*
Dorie Seavey, PhD, *DK Seavey Consulting*
Marilyn Ray Smith, *Emerald Necklace Conservancy* (signing individually)
Debbie New, *Gas Leaks Allies* (signing individually)
Steven Marantz, *Longmeadow Select Board Member* (signing individually)
Mark Sandeen, *Lexington Select Board Member* (signing individually)
Lise Olney, *Wellesley Select Board Member* (signing individually)
August 3, 2021

Re: Mothers Out Front Comments Regarding D.P.U. 20-80 Scenario Selection

Thank you for the opportunity to comment on the scenario selection for the D.P.U. 20-80 report and for the information presented last week and discussed at the July scenario workshop. We appreciate the opportunity to participate in this process and ask that you include the following considerations when selecting scenarios:

**Clearly define the values, objectives, and metrics for how scenarios will be selected and evaluated.**

- We suggest you utilize the values in the Department of Public Utilities’ mandated mission - Safety, Reliability, Affordability, Security, Equity, and Emissions - and include how these values will be measured and what inputs and data will be used.
- We also wish to emphasize the critical importance of defining, highlighting, and prioritizing equity outcomes in all scenarios (for example, by ensuring that costs do not disproportionately fall upon environmental justice communities in any scenario examined).
- Each scenario must also include plans and policies to support a transition for labor.

**In the majority of scenarios considered, the role and size of the gas system must be limited.**

- Given the urgent need to align the LDCs with the Commonwealth’s emissions targets, please include the following within almost every scenario:
  - Cease further expansion of the gas system;
  - Confine the role of the gas system and alternative fuels to end uses that cannot currently be electrified (e.g. specific industrial uses);
  - Include detailed plans for retiring the existing system (“strategic decommissioning”).

**Be transparent about the sources, risks, and true costs of any alternative fuels proposed in the scenarios.**

- Please clearly define decarbonized gas, zero-carbon gas, renewable natural gas, biofuels, and any other terms used to describe alternative fuels. Please ensure that the complete costs and emissions from the creation, distribution, and use of any alternative fuels are incorporated
into scenario models. When considering true costs, please also ensure that the cost of Gas System Enhancement Plans is included in all scenarios which continue gas system use. Please complete the same full lifecycle calculations for any scenarios using hydrogen.

**Model a scenario resulting in the full retirement of the gas system.**
- In the LDCs’ February 5th, 2021 D.P.U. docket response to stakeholder comments, a scenario with a 100% reduction of thermal gas service was noted as “envisioned and encompassed” within the consultant workstreams. Please ensure this scenario is developed.

**Model at least one scenario in which the LDCs reach net zero by 2050 - or earlier:**
- Current scenarios - most notably the Pipeline Gas scenario - rely on emissions reductions in other sectors to achieve net zero targets. At least one scenario should completely decarbonize the gas system without relying on other sectors.

**Model scenarios with detailed, optimized electrification pathways.**
- The Roadmap scenarios do not contain detail on how to efficiently, equitably transition the gas system to electrification. A critical focus of the 20-80 scenarios should be modeling optimized electrification pathways that clearly lay out a plan for the LDCs to transition the gas system in alignment with the D.P.U.’s values. For example, the Commonwealth’s over two million buildings could be electrified strategically with concurrent gas system pruning, weatherization, and the prioritization of environmental justice communities - or these two million buildings could be electrified at random across the Commonwealth. The endpoint is the same, but the costs and impacts likely would not be.

**Please include gas leaks in your calculations and, in addition to using the EPA defined Global Warming Potential (GWP) factor for methane when calculating emissions, include the IPCC’s GWP factor of 84 times over 20 years.**
- Using the EPA’s 100 year timeframe for methane’s warming factor grossly underestimates the actual impact of methane on emissions. This timeframe also undermines Massachusetts’ legal mandate of net zero by 2050.

Thank you again for the opportunity to comment on scenario selection. We look forward to continuing to participate in this process.

Sincerely,

Ania Camargo and Cora Weissbourd
Mothers Out Front Clean Heat, Clean Air Campaign Team
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RE: Mothers Out Front Comments, Draft Stakeholder Process for D.P.U. Docket #20-80  

Dear Ms. Bodemer, Ms. Bruno, and Ms. Smegal,  

Mothers Out Front submits these comments on the Local Gas Distribution Companies’ draft stakeholder process for D.P.U. Docket #20-80. Our interest in your work stems from our steadfast commitment to a healthy and sustainable planet with a livable climate for all children and future generations.  

We appreciate your thoughtful efforts to propose a thorough and meaningful stakeholder process. We particularly support and wish to emphasize your inclusion of low- and moderate-income customer groups and disproportionately impacted communities in this process.  

For the next draft of this stakeholder process, we would like to see additional clarity in four major areas: stakeholder segmentation, process transparency, an equitable stakeholder engagement process, and, most importantly, the use of stakeholder input.
• **Please provide more specificity and clarity around the range of stakeholders to be engaged by this process, any plan to segment stakeholders, and a timeline for engagement.** It is not hyperbole to state that every individual in the Commonwealth will be affected by this proceeding. Identifying a process for segmenting and engaging diverse stakeholders - for example: impacted workers, technical experts, community leaders - will lead to more robust, complex discussions and feedback.

• **Please provide additional detail on process transparency.** Currently, Phase 2 of this document, “Implementation of Stakeholder Engagement Process” is a bare outline and would benefit from a timeline, targets for stakeholder engagement, and detail on any commitment to public open meetings, availability of recordings and meeting materials, language translation, and availability of any analyses and data used for presentations and reports.

• **Please provide more detail around the processes for engaging low- and moderate-income individuals and stakeholders from disadvantaged communities.** Please consider additional accommodations such as translations of announcements and outreach into languages spoken in frontline communities and reimbursement for costs associated with participation such as transportation and childcare, among other measures that will ensure greater equity and access to broad public participation.

• **Most importantly, please provide detail on how stakeholder input will be shared and incorporated throughout the stakeholder engagement process and within the final report.** We are concerned by the absence of accountability in this document and fear that stakeholder voices will ultimately not be acknowledged and incorporated throughout the proceeding. We ask both for a formal commitment that stakeholder voices will influence the outcome of this process and detail on guardrails ensuring stakeholder voices are included in all interim and final products.

As part of our comments, we also wish to endorse the comments made by the Gas Leaks Allies.

We look forward to participating in a transparent and meaningful public process to co-create a plan to equitably align local gas distribution companies with the Commonwealth’s 2050 climate goals. We are optimistic that through a robust process that incorporates the voices of all stakeholders, we can jointly develop decarbonization plans that are good for our communities, for your companies, and for the future of our children.

Sincerely,

Claire Corcoran  
Cora Weissbourd  
Ania Camargo  
On behalf of Mothers Out Front Massachusetts
Massachusetts D.P.U. 20-80 Stakeholder Process:
Sierra Club Recommendations on Future of Gas Scenarios for Analysis

On behalf of its more than 100,000 members and supporters in Massachusetts, the Sierra Club respectfully submits the following comments on the question of what scenarios for decarbonizing the gas utility sector should be assessed in E3’s forthcoming analysis. We offer the following comments and recommendations:

1. **E3 should not analyze any scenarios that do not achieve the state’s statutory savings goals for 2030, 2050 and all other years.** We do not see any value in such analysis and believe the resources devoted to it would be better spent on additional alternative scenarios for meeting the targets. In reflecting back on the July 27th meeting and the related slide deck, it is not clear to us whether E3 was proposing to run such a “reference case” scenario. It is listed on slide 8 as a “scenario defined in the 2050 roadmap”, but it is not listed in the “alternative scenario designs” which we are interpreting to be E3’s proposed scenarios. If that is the case, we appreciate and support its exclusion.

2. **Do not run a separate scenario for achieving 2030 CECP goals.** Slide 8 of the July 27th presentation appears to suggest that one of the “alternative scenario designs” is “2030 CECP alternative”, which is characterized as a scenario in which the 2030 CECP emission reductions are achieved. We do not understand why this is a separate scenario from the other scenarios that meet 2050 goals. Would it look only at meeting 2030 goals but assume 2050 goals would not be met? If so, what would be the point of that scenario? Consistent with the recommendation above, all scenarios should meet all of the state’s emission reduction goals in all years.

3. **All scenarios should assume no new gas customers – either fuel conversions of existing customers or new construction – are added to the system.** Even the “pipeline gas” scenario in the MA decarbonization pathways report suggests that a 40% reduction in gas sales is necessary to meet the state’s emission reduction goals. Thus, adding new customers in the near term will only increase the cost of achieving gas sale reductions in the medium to longer term. While we appreciate the suggestion of some stakeholders that there may be value in quantifying that additional cost in order to make the case for regulators for precluding new customer additions, it is not clear to us that the E3 modeling will provide such quantification – at least not without devoting an extra scenario to enable assessment of the difference in decarbonization costs with and without new customers being added over the next decade. We do not believe that it is worth running a separate scenario just for that purpose.
4. **All scenarios should have very deep and broad levels of investment in energy efficiency** – both electric efficiency (to create more “room” for adding new electrified loads to the grid while reducing costs) and gas and other fossil fuel efficiency (i.e., building envelope improvements that will both reduce added costs to the grid from electrification and reduce any increase in costs to customers left on the gas system as gas prices increase – both because of more expensive biogas and spreading of fixed costs across a smaller volume of sales).

5. **All electrification measures should be paired with the maximum amount of load management that could realistically be expected to be achievable.** It makes no sense to analyze any significant level of electrification (in any scenario analysis) without assuming simultaneous electric utility efforts to minimize impacts on system peak demands. While we appreciate that it will not be possible to convince 100% of customers to enroll in demand response-type programs, the analysis should assume that aggressive electric utility initiatives will maximize the number of customers who do participate. This should apply to all end uses – particularly electric heating and cooling, hot water, and EVs – while recognizing that the amount of load that could be shifted off peak would vary by end use.

6. **District energy – geothermal and other forms – should be an option considered and included at some level in all scenarios.** It does not make sense to make district energy just a form of sensitivity scenario. Some amount of district energy will almost certainly be lower cost than biogas or electrification of individual buildings. The question is just how much. Could E3’s model be given the option of 4 or 5 different levels of district energy and select increasing levels whenever they are less expensive than, for example, increased purchases of biogas or hydrogen? If not, why not?

7. **If hybrid (electric-gas) heating systems are to be assessed, the assessment needs to consider not just electric cost savings from shaving system peaks but also increased gas utility system replacement costs and on-going maintenance costs.** While a gas furnace that is installed in tandem with an electric heat pump would reduce electric peak capacity costs associated with significant heating electrification, it would also require retention of the full existing gas system infrastructure just to serve gas loads in very cold hours of very cold days. In contrast, while full electrification would lead to increased winter peak demands and their associated costs, it could eliminate gas pipe replacement costs and on-going gas system maintenance costs. Any analysis of hybrid electric-gas heating systems needs to consider both sets of potential impacts. In other words, a scenario focusing on electric-gas hybrid heating systems should be assessed relative to a scenario in which the gas system is significantly pruned and its footprint is significantly reduced. Of course, it should also include impacts on customers who would have to buy and maintain two types of heating equipment instead of just one.

8. **Several recommendations for additional scenarios.** We understand that E3 is planning to run a low electrification scenario that results in 40% reduction in gas sales by 2050 and another that results in a 90% reduction – each consistent with a scenario analyzed in the MA pathways study. We accept these two scenarios, but suggest that they be
complemented by the following additional scenarios:

a. **Electrification optimization scenario.** We suggest a scenario in which the E3 model selects the economically optimal level of electrification. We understand from E3 that its model cannot directly optimize demand resource options. During the July 27th meeting we suggested that optimization of electrification levels could potentially be achieved by letting the model select from among several levels of electrification (and their associated costs) as a form of “negative supply” – just as electric utility IRP models are often set up to select among 4 to 8 levels of energy efficiency investments. We understood E3’s response to be that while that may be possible, the uncertainty about future electrification costs (which it characterized as much more uncertain than efficiency costs) could render such an approach problematic. In thinking about this further, we are inclined to disagree. We do not think there is greater uncertainty about costs of different levels of electrification than there is about the costs of different levels of energy efficiency 10 to 20 years into the future. Moreover, E3 is already planning to run one scenario with a 40% reduction in gas sales (mostly through electrification) and another with 90% reduction in gas sales (again, mostly through electrification). If it can make assumptions about electrification costs in those two approaches, why can it not make informed assumptions about various points in between? Put simply, we suggest characterizing the cost of 40%, 60%, 75%, 90% and 100% reduction in gas sales and running the model in a manner in which it can select the lowest cost of these options. This recommendation is subject to the caveat that there may be other constraints inherent in the E3 model that we do not understand and that would preclude such an analysis. If there are such constraints, then perhaps a third level of electrification, such as 70% gas sale reduction, would be valuable as the difference between 40% and 90% reduction in gas sales is vast.

b. **Gas system “pruning” scenario.** This would entail targeting of 100% electrification to parts of the gas system that would otherwise require large capital investments to replace aging pipe and/or other infrastructure (a form of non-pipe alternatives) and perhaps slightly smaller levels of electrification elsewhere. In other words, there would be more cost savings from eliminating entire sections of the current gas utility footprint than from electrification that hit every other, two of every three, or nine of every ten homes, but still required the entire existing system to be maintained (including billions of dollars in new pipe replacements). This is analogous to what Group 1 of the July 13th meeting called “optimized electrification scenario”. We give it a different name here to distinguish it from the other form of electrification optimization we suggest above. Note: as suggested by Group 2 in the July 13th meeting (their “strategic decommissioning” recommendation), we could alternatively support incorporation of this concept into all scenarios.

c. **District energy scenario.** We suggest a scenario which focuses more than others on district energy – both networked geothermal and other forms of district energy
(e.g., water). This should include consideration of gas utility ownership of such systems as part of a more diverse business model – with attendant reductions in rate impacts by shifting fixed costs across a broader range of heat or energy (not just gas) sales.

d. **More “Heroic” levels of building envelope energy efficiency scenario.** This scenario would go beyond the already aggressive levels of efficiency assumed for all scenarios to include Passive House levels of efficiency for all new construction and as close to that level of efficiency as could be realistically achieved in as many existing buildings as possible over the next 25+ years through state-of-the-art retrofit approaches and policies.

Respectfully submitted,
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August 31, 2021

Poppy Milliken
ERM, on behalf of the Future of Gas
1 Beacon Street,
Boston, MA 02108

RE: Considerations for LDC and Consultant Proposed D.P.U. 20-80 Scenario Analysis Modeling

Dear Future of Gas Consultants:

Acadia Center appreciates the opportunity to participate in and comment on the D.P.U. 20-80 process, an investigation into the role of gas local distribution companies (LDCs) as the Commonwealth works to achieve its mandated 2030 and target 2050 climate goals. As a non-profit research and advocacy organization committed to advancing the clean energy future, Acadia Center is at the forefront of efforts to build clean, low-carbon, and consumer-friendly economies throughout the Northeast – and remains very interested in decarbonizing the economy of Massachusetts in compliance with the Global Warming Solutions Act and Next Generation Climate Roadmap targets.

In addition to the concerns raised in the joint stakeholder letter to which Acadia Center was a signatory, Acadia Center has several concerns stemming from the most recent Massachusetts Future of Gas Stakeholder meeting held on August 24, 2021. Given the nature of the scenario analysis being undertaken by the LDCs and their consultants, decisions made early in the process can have a profound effect on the key findings from the study in the coming months. Based on our participation in the stakeholder process to date, Acadia Center is concerned that several of the early decisions by the LDCs and their consultants related to scenario analysis approach could jeopardize the value of the ultimate outputs of the analysis. These concerns include a modeling approach that does not:

1. Explicitly analyze a scenario that considers 100% decommissioning of the existing gas system.
2. Acknowledge the feedback loop associated with customers disconnecting gas service to avoid paying an ever-increasing share of the fixed costs associated with maintaining a gas system that serves an ever-decreasing number of customers.
3. Attempt to quantify the significant health and safety costs associated with being dependent on a system that is reliant on hazardous, highly combustible gases like natural gas and hydrogen.
4. Acknowledge the proven ability of cold climate air source heat pumps to serve as the sole source of space heating in the vast majority of the Commonwealth’s buildings, even on the coldest of winter nights.
Acadia Center encourages the LDCs and their consultants to modify their planned scenarios to model these factors that could undercut the validity of the study’s results. We would be happy to discuss our concerns further, either directly or in a smaller, technical session regarding scenario planning. We also share, in this comment letter, some of the questions that the August 24th presentation raised, which we look forward to discussing at the upcoming technical session.

**Need to Model a Scenario that Explicitly Considers 100% Decommission of the Existing Gas System**

Many experts hold the view that 100% decommissioning of the natural gas system will be necessary to achieve net zero emissions by 2050. Critics of this view often argue that full decommissioning of the gas system will be too financially burdensome to enact. For this reason, analyzing a scenario that includes full decommissioning of the natural gas system is necessary to develop a more comprehensive understanding of the benefits and costs associated with this path forward. Analysis of this scenario should be a core priority of the 20-80 process. As it currently stands, of the ten scenarios being put forward for analysis by the consultants, not one proposes to address full decommissioning. Stakeholders have consistently called for full decommissioning to be addressed, but even the most aggressive decommissioning scenario of the four “alternative scenarios” proposed during the August 24th stakeholder meeting falls short. This “Targeted & Optimized Electrification” scenario still assumes many customers will rely on gas furnaces or boilers to compliment electric heat pumps, calls for only “segments” of the gas network to be decommissioned, and assumes an additional six years of gas network build out through 2027. The “Targeted & Optimized Electrification” scenario is a far cry from full decommissioning of the gas network and will simply not address outstanding questions regarding full decommissioning. Acadia Center is aware that the consultants are running an Eversource-specific “100% Electrification” scenario and feel strongly that this scenario should be expanded to cover all the LDCs.

Under a 100% decommissioning scenario, Acadia Center does find it reasonable to conduct a sensitivity analysis that allows for an extremely limited renewable natural gas (RNG) or hydrogen distribution network to serve geographies with concentrations of heavy industry that are extremely challenging to electrify. However, the analysis may also find that it is more cost effective to transport limited quantities of compressed hydrogen, liquid hydrogen, or a “hydrogen carrier” such as ammonia, particularly to dispersed heavy industry end users, using trucks and rail.

**Need to Account for the Dynamic of Customers Electrifying and Disconnecting Gas Service at an Accelerated Rate to Reduce Their Total Utility Bill Costs**

As conversion to all-electric homes and businesses becomes more prevalent over the coming decades, many customers will fully disconnect from natural gas service. As customers defect from the gas system, fixed costs associated with maintaining the gas network will need to be covered by a continuously decreasing number of ratepayers. It is likely that many of the remaining gas customers, motivated by avoiding increasing per-customer fixed costs associated with maintaining the gas service, will respond to this phenomenon by opting for full electrification. The gas system will also likely incur additional costs associated with decarbonization that could further exacerbate the issue. For example, an increasing reliance on decarbonized fuels, that will likely to be more expensive to produce than natural gas, and the need for infrastructure upgrades to safely accommodate these decarbonized fuels could push additional costs onto a dwindling customer base. The positive feedback loop of
customers disconnecting gas service as the pace of electrification accelerates could be further magnified by decreasing electricity rates as more renewables with zero fuel costs come online and as the installed costs of heat pumps decrease as the technology matures and contractors become more familiar with the technology.

The proposed supply-side modeling by the LDCs and their consultants does not account for this dynamic. This will skew the results of the analysis, particularly for the scenarios including “Targeted & Optimized Electrification” that consider significant, but not complete, decommissioning of the gas network. Not accounting for this dynamic also has environmental justice ramifications. Without significant policy intervention, it is likely the middle- and high-income gas customers with sufficient access to capital will opt to invest in electrification upgrades, enabling them to disconnect gas service and avoid high energy costs. Customers in disadvantaged communities without the same access to capital to install efficient heat pumps systems will thus be forced to bear the costs of maintaining the gas network in the form of increased rates across an ever-decreasing gas customer base.

Additionally, without a careful accounting of the impact that customer defections from the natural gas distribution system due to rising costs will have on the energy bills of the remaining customers, the consultants’ scenario analysis will be incomplete. If the consultants’ supply-side model cannot directly incorporate this dynamic, Acadia Center asks that the consultants consider conducting a separate analysis focused on this phenomenon. For example, an analysis could be conducted to estimate the number of households disconnecting from the gas network needed to trigger a certain threshold percent increase in future gas utility bills compared to current gas utility bills. The remaining number of households on the gas network could then be compared to the total number of low- to moderate-income (LMI) households currently connected to the gas system in the state.

Need to Quantify Health and Safety Costs and Benefits

Part of the driving impetus behind the 20-80 process is that, because the product that the LDCs are selling is causing societal harm, the future role of gas requires detailed examination. This societal harm associated with natural gas is not just limited to accelerating climate change through the release of greenhouse gas (GHG) emissions – it also extends to the adverse health and safety impacts of relying on natural gas. Because all ten potential scenarios outlined by the consultants comply with the GHG targets established in Massachusetts climate legislation, the GHG emissions component of societal harm is adequately addressed by the scenarios. However, Acadia Center is concerned with the decision made by the consultants to not quantify health and safety damages associated with a continued reliance on natural gas or a transition to other combustible fuels including hydrogen and renewable natural gas (RNG). Considering the negative health and safety impacts of these fuels only from a qualitative perspective diminishes the influence these impacts should have in the selection of the most cost-effective path towards decarbonization.

In the U.S., an estimated average of 4,200 home structure fires per year started with the ignition of natural gas. These fires caused an average of 40 civilian deaths, 140 civilian injuries, and $54 million in direct property damage per year.1

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In addition to an immediate threat to life and property, there are well documented risks to respiratory health from gas stove pollution, especially among children. Homes with gas stoves have approximately 50 percent to 400 percent higher average nitrous oxide (NO₂) concentrations than homes with electric stoves² and strong evidence exists for a relationship between long-term exposure to NO₂ and the development of asthma in children, in addition to symptoms related to the respiratory track like wheeze, cough, and chest tightness.³

While transitioning to electrification eliminates these health and safety hazards associated with the transmission, distribution, and combustion of natural gas, a transition to decarbonized fuels does not. RNG poses identical risks to natural gas and hydrogen is both more combustible and more prone to leaks than natural gas. Hydrogen can ignite more easily than natural gas and its flame is nearly invisible. Blending hydrogen with natural gas, even at volumes of 20% or less, increases the risk of ignition and the severity of explosions.⁴ Because hydrogen is a very small molecule with low viscosity and the propensity to degrade metal pipes over time, it is prone to leakage. Measurements from steel and ductile iron gas distribution systems suggest that the leakage rate for hydrogen is about three times higher than that for natural gas. Similarly, in polyethylene pipes, transitioning from 100% natural gas to a 20% hydrogen blend is estimated to nearly double the total amount of gas leakage.⁵ It is critical that the health and safety damages associated with natural gas and decarbonized fuels, and conversely the health and safety benefits associated with full electrification, be factored into the consultants’ scenario analysis in a quantitative manner that puts health and safety on a level playing field with other variables being considered in the analysis.

Need to Acknowledge the Proven Track Record of Cold Climate Heat Pumps as a Buildings Only Source of Space Heating

Massachusetts’ 2050 Roadmap found that electrification is the most cost-effective⁶ way to eliminate emissions from buildings. Several of the scenario analyses proposed by the 20-80 consultants, by contrast, suggest that there are technical limitations to heat pump functionality in cold weather which will require the retention of gas-fired heating equipment as a backup. In reality, hundreds of cold-climate air-source heat pump (ccASHP) models that are available

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⁵ Ibid.
⁶ Massachusetts 2050 Decarbonization Roadmap. Page 45. “Across a wide range of potential futures, electrification of end uses, particularly space heating through the use of electric heat pumps, was found to be the most economically advantageous and cost-effective decarbonization strategy for widespread deployment across the Commonwealth’s building sector.” (https://www.mass.gov/doc/ma-2050-decarbonization-roadmap/download)
for purchase in Massachusetts today can fulfill the entirety of a home’s space heating requirement without fuel-fired backup heating equipment of any kind.

E3’s presentation at the stakeholder meeting on August 24th described a “Hybrid Electrification” scenario wherein “buildings are expected to adopt electric heat pumps with gas furnaces for heating on cold days.” Acadia Center would like for the consultants to clarify how they define “cold days” in their modeling: does this definition account for the demonstrated sub-zero performance characteristics of ccASHP equipment? According to the ASHRAE handbook,7 winter temperatures at the coldest weather station in the state—Worcester Regional Airport—are higher than 1.6°F for 99.6% of the year. By comparison, ccASHP models by Mitsubishi, Daikin, and other major brands can provide for a home’s full heating load in temperatures well below zero.8

State policies and programs may adopt performance standards to ensure that the heat pump models they support can provide heat throughout the winter, as the Mass Save programs have done.9 Acadia Center recommends that the consultants consult the Mass Save product list and Northeast Energy Efficiency Partnerships’ (NEEP) ccASHP Specification and Product List10 for information about ccASHP efficiency and capacity maintenance at cold temperatures. One may safely assume that models with a ratio of maximum capacity at 5°F to rated capacity at 47°F equal or close to 1.0 can provide for a home’s heating need throughout the year.

In addition, Acadia Center would like to direct the consultants to recent testimony11 pertaining to Efficiency Maine’s draft fifth Triennial Plan which provides several clear data points about ccASHP performance. Alone among New England states, Maine has a heat pump installation target in statute; that, combined with a high incidence of heating oil use, has made Maine the most aggressive promotor of ccASHP technology in the region. This testimony of Efficiency Maine staff on heat pump performance provides several valuable explanations and data points which E3 could use in its analysis.

Acadia Center recommends that the performance characteristics explained in the product lists and Efficiency Maine testimony be integrated into E3’s analysis.

Additional Questions to Discuss at a Future Technical Stakeholder Meeting

In addition to the four issues that could undercut the validity of the LDCs’ consultants’ study outlined above, Acadia Center has the following questions related to technical approach and assumptions as they relate to scenario analysis. Responses should be provided in writing in advance of the September stakeholder meeting. In addition, Acadia

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8 For example, Mitsubishi Hyper-Heat (H2i) models maintain 80% of their rated heating capacity at -13°F.
10 Available at https://ashp.neep.org
Center is concerned with the lack of time in the 20-80 stakeholder process dedicated to answering technical questions in a live discussion format. We were pleased to hear that there will be an additional hour reserved for technical discussion at the end of the upcoming September 28th stakeholder meeting and request that additional technical sessions be held to address concerns with modeling approach and assumptions held by stakeholders.

- **Scenarios should not be mutually exclusive.** Acadia Center is concerned that the scenarios being analyzed by the consultants are being treated as mutually exclusive, when the most cost-effective option may be a combination of multiple scenarios. For example, the “Targeted & Optimized Electrification” scenario does not include an expansion of networked geothermal and the “Networked Geothermal” scenario includes only a fraction of the full electrification and hybrid electrification conversion of the “Targeted & Optimized Electrification” scenario. Deploying networked geothermal and full electrification at scale in parallel to decarbonize the heating sector should be an option that is on the table. Related to this point, Acadia Center has the following questions:
  - Does sensitivity analysis in the modeling effort have the flexibility to account for a scenario with significant deployment of networked geothermal and full electrification?
  - If not, will the consultants consider adding a scenario that relies more heavily on a combination of networked geothermal and full electrification?

- **More information is needed on assumptions related to the use of “decarbonized gas.”** Given significant uncertainty around several variables related to the use of decarbonized gas and the heavy reliance on decarbonized gas across multiple scenarios, there is need for clarification on key questions, including:
  - What are the decarbonized gas cost inputs in the model? Given that the use of decarbonized gas as a pipeline fuel has not been proven at scale, understanding the cost assumptions surrounding producing, transmitting, and distributing decarbonized gas at scale are critical.
  - What are the leak rate assumptions for hydrogen using current gas pipelines? As discussed above, hydrogen blended into existing pipelines results in higher leak rates than natural gas alone, triggering concerns about safety and direct emissions from methane leaks.

- **More information is needed on the financial implications of a contracting gas network.** Significant decommissioning of the natural gas system, as highlighted in the Targeted & Optimized Electrification scenario, is uncharted territory for the LDCs and brings with it significant uncertainty on cost ramifications for customers left on the legacy systems. Questions related to financial implications of contracting the gas network include:
  - In both the “Hybrid Electrification” scenario and the “Targeted & Optimized Electrification” scenario, what are the associated cost ramifications for customers remaining on the gas distribution network? This relates directly to the discussion above on the positive feedback loop of gas customers disconnecting from gas service in favor of electrification.
  - In the “Targeted & Optimized Electrification” scenario, how would the strategic decommissioning costs be recovered, given the contraction of the rate base?
In the “Hybrid Electrification” scenario, the August 24th presentation states that the gas network will “remain intact” despite “volumes of decarbonized gas required are relatively low.” What is the logic behind this assumption, given the likely impacts on consumer costs?

- More information is needed on technical assumptions related to networked geothermal. The description of the “Networked Geothermal” scenario as presented during the August 24th lacks enough detail on technical specifics related to the presumed feasibility of converting the gas system to networked geothermal. Acadia Center’s questions related to networked geothermal include:
  - In the “Networked Geothermal” scenario, the August 24th presentation describes the scenario as “Conversion of gas system to networked geothermal (where feasible).” How will it be determined where it is feasible to convert the gas system to networked geothermal?
  - In the “Networked Geothermal” scenario, the August 24th presentation states that “Other end-uses that are not suitable for networked geothermal systems remain connected to the gas system.” What specific end uses is this statement referring to and what criteria was used to develop this list? Space heating alone can represent 60% or more of a building’s total energy use—preserving and maintaining the gas distribution system for the sole use of cooking appliances would be uneconomical on its face.

Conclusion

Acadia Center urges the consultants to adjust their modeling approach to accommodate the four key concerns identified in this letter, allocate more time in the 20-80 stakeholder process for answering technical questions in a live discussion format, and address the specific technical questions identified in this letter. Acadia Center looks forward to continuing to work with the LDCs and their consultants as an interested stakeholder to reach a safe, sustainable, and economic clean energy transition.

Sincerely,

Amy E. Boyd
Director of Policy
aboyd@acadiacenter.org
617.742.0054 ext.102

Attachment 13
Dear Ms. Moore,

Conservation Law Foundation (“CLF”) has been engaged throughout the stakeholder process for the Future of Gas in Massachusetts (Massachusetts Department of Public Utilities (“D.P.U.”) Docket Number 20-80, hereafter “the Future of Gas docket” or “Docket 20-80”). This matter presents a unique and timely opportunity to shape the future of the gas industry in Massachusetts and to address health, safety, equity, technological, and environmental issues. We appreciate the opportunity to provide these written comments to you regarding development of scenarios for consideration in this process.

Each Scenario Must Address Policy Considerations Such as Massachusetts’ Climate Mandate and Issues Surrounding Equity, Environmental Justice, and Labor

In developing scenarios for Docket 20-80, several policy considerations should be taken into account. First, we must be cognizant of Massachusetts’ legislative mandate to reduce greenhouse gas emissions to net-zero by 2050. Accordingly, each scenario must result in the accomplishment of this goal, and any scenarios which do not meet the criterion of achieving net-zero by 2050 must be stricken from consideration. Environmental justice and equity must be central pillars in both procedural and substantive matters arising from Docket 20-80, and special care must be taken to ensure burdens – whether economic or otherwise – do not fall upon our most vulnerable populations, who have historically borne these costs. Additionally, transitioning the labor sector to clean energy jobs must be a key aspect of any scenarios developed in this process. Many people in Massachusetts have depended on utility industry jobs for their livelihoods; the transition to clean energy presents an opportunity to meet Massachusetts’ climate policy mandates while providing safe, reliable employment with good earnings and benefits to persons with all skill levels and abilities.
Scenarios Should Include Technical Considerations Such as Analysis of Certain Technologies and Quality of Data

In addition to the foregoing policy considerations, which are necessary to ensure a successful outcome in the Future of Gas docket, several technical considerations should be included in the development of scenarios for Docket 20-80. A comprehensive evaluation of district heating in comparison to networked geothermal (ground source heat pump) technologies should be undertaken and each should be considered separately from the other. Further, before scenarios are developed, it is necessary to fine tune any assumptions regarding the kind and amount of backup heat required for heat pumps, depending on weatherization of buildings, in order to ensure the accuracy of such assumptions and any resultant scenarios and evaluation. Any commercial-side analysis undertaken during this process should include full electrification technologies, including existing technologies such as air source heat pumps, ground source heat pumps, and variable refrigerant flow (“VRF”) heat pumps, as well as review and analysis of emerging technologies such as district geothermal and hydrogen. Case studies on these technologies, including a retrofit of CLF’s own offices in downtown Boston using VRF heat pumps, can be found in a report issued in June 2020 by A Better City / Boston Green Ribbon Commission.1

Finally, the quality of data upon which each scenario is based will have a significant impact on the accuracy and comprehensiveness of the results. Any analysis which relies solely upon publicly available utility data is unlikely to yield accurate results and creates the potential and possible need for LDCs (Local Distribution Companies, or utilities) to deviate from such scenarios in the development of any future proposals. It is appropriate for E3 to review not only publicly available data, but also necessary and useful data in possession of the LDCs involved in Docket 20-80. If confidentiality issues arise, the LDCs can work with the D.P.U. to ensure protected information is not revealed while maintaining the integrity of public process.

Thank you for your time and attention to this matter. Please contact me (pgandbhir@clf.org) and Caitlin Peale Sloan, Vice President, CLF Massachusetts (cpeale@clf.org) with any questions or for further discussion.

Very truly yours,

Priya Gandbhir, Staff Attorney Conservation Law Foundation

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