**NPA Working Group: NPA Framework Comment Submission Due January 29**

**On behalf of: HEET**

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Reference ID (to be filled in by Apex):

## High Level Comments

#### Key proposal strengths: Summary statement of high-level (executive summary-type) strengths of proposal

**I support the decision-making hierarchy and logical flow of the process proposed.** This is a very good start to a very complex challenge and the basic architecture is sensible.

#### Key proposal challenges: Summary statement of high-level (executive summary-type) challenges of proposal, including cross-cutting concerns

**The ‘blinkered horse’ challenge, meaning decision-making at the pipe-scale when the costs and impacts are system-scale**, as this will not always result in optimization of decision-making for customers, for utilities, or for society.

**The ‘time & scale’ challenge**, as we move towards state-mandated gas system decarbonization deadlines, this NPA process is not directly linked to the necessary timelines or scale, creating the risk of fundamental irrelevance for this process.

**Geothermal networks are not widely understood or addressed in the Working Group,** with several members commenting on their lack of understanding or even one member expressing concern regarding safety. This is unfortunate as the Eversource Gas Geothermal Network is the first gas utility decarbonization of an existing neighborhood in Massachusetts and the process and learnings are highly relevant to the NPA working group. I have also observed that the discussion, challenges, and process for a individual heat pump NPA are fundamentally different than for a networked heat pump NPA. Given the relevance and significance of geothermal networks to the NPA process, we suggest the working group address this knowledge gap and consider how and where process may differ for this utility-scale infrastructure and service evolution.

## Project Identification

#### Key Point #1:

**Geothermal networks have site selection criteria that is not part of this identification process**. Achieving the greater efficiencies and resiliency of larger scale NPAs may require identifying opportunities as early as possible and distinguishing utility service evolution from individual building transition off the utility.

#### Key Point #2:

**The “exclusion” category requires further clarification**, as it raised a conversation that centered on a question of trust in LDC assessment and reporting. One way this can be partially addressed is through greater data transparency (Key Point #1 under Gas System Feasibility below). Additionally, LDCs suggested that under the Proposal less than 10% of pipelines would be excluded from Initial Viability Testing, so I suggest that establishing a clear upper limit would help to address and build trust in the LDCs exclusion assessments.

## Initial Viability Testing

#### Key Point #1:

**Total Project Cost should be assessed relative to Total System Impacts, not only Customer Impacts.** This will begin to address and include the system scale impacts of regulator station or substation costs for example.

#### Key Point #2:

**“New Customer Requests” should be moved to the Green Zone – they are excellent candidates for NPAs.**

## Gas System Feasibility Review and Electric System Feasibility Review

#### Key Point #1:

#### **The electric system review does not mention consideration of benefits or services to the electric grid.** Load reduction, peak shaving, load flattening and demand response services are all observed in geothermal heat pump installations and particularly in geothermal networks. Strategically deploying such an NPA to address electric system challenges should be a consideration of the electric system review.

#### Key Point #2:

**NPA implementation will require significantly greater data transparency.** Load and capacity and asset data - *appropriately protected from any risk of sharing critical infrastructure information or violating customer privacy* - must be shared between gas and electric utilities, as well as with decision-makers, including the DPU, as well as oversight or third-party entities. The recent addition of 116C to Chapter 164, requiring the establishment of a centralized data repository by distribution companies, could potentially be used to help structure and expedite this data transparency. This will not only increase trust and understanding but will also serve to drive innovation and engagement in the real challenges this process presents.

## Benefit Cost Analysis

#### Key Point #1:

**The Total Resource Cost Test does not clearly include the value of improved safety of NPAs (in $ and otherwise).** A simple actuarial calculation of risk and/or use of historical data regarding incidents and/or unique events such as that in Merrimack Valley in 2018, could easily yield a dollar value to the reduction of safety risk with the removal of an explosive fuel.

#### Key Point #2:

**Non-energy impacts should include not just safety above, but also energy security, resilience value, and health impacts as a safety and an equity issue.** It is of note that the current MA DPU is mandated by statute to consider safety, affordability, reliability, emissions, equity, and security. We can ensure that each of these is represented in this decision-making matrix.

#### Key Point #3:

**The gas system rate impact measure does not directly mention the benefit of revenue from the geothermal network customer.** Given the differential rate impact between an NPA that keeps ratepayers in the thermal ratepayer base (gas to geo network) and one that does not, this sees relevant to consider. The thermal customer has the potential to stabilize the gas rate payer base, avoiding rising rates as decarbonization scales.

#### Key Point #4:

**I support the proposal to permit LDCs to provide “incremental funding” to support electrification**, which I believe will allow LDCs to make necessary and enabling investments to support larger scale decision-making at the appropriate scale.

## Project Authorization and Prioritization

#### Key Point #1:

**The Proposal mentions the number of NPAs that is “reasonable,” but is unclear how this will be set, or how it will grow over time.** The Proposal should set clear expectations and progressive targets that can be revisited upwards as LDCs gain experience implementing NPAs.

## Project Execution

#### Key Point #1:

**We have examples of successful electrification at scale accomplished faster than the proposal suggests**. The time duration for NPA projects does not match our experience with the Framingham geothermal project, which was implemented faster than the timespan indicated. The designed expansion of the first geothermal loop in Framingham is projected, if permissioned, to be implemented even faster, with a total timeline of 30 months.

## Customer Education, Engagement and Commitment

#### Key Point #1:

**The proposal should reframe the question of “customer choice”. Utility planning decisions are not and have never been driven solely by individual customer choice.** Customers have only ever had the choice to request, accept, or decline a utility service. If, in completing an NPA, a utility changes that service offering to provide a different or more modern kind of safe, affordable and reliable thermal service, customers retain this choice to pay for utility service or to make alternate arrangements. This more accurate understanding of customer choice within a utility reflects decision-making precedent and is necessary to avoid a tragedy of the commons in which individual ‘customer choice’ drives decisions that result in safety or affordability challenges for all. Customers do not choose pipe replacements, nor pipe size or flow rate, because of the collective implications for reliability, safety, etc. Customers were not given individual choice during the transition from coal gas to natural gas last century. They did have the choice to discontinue utility service or they could upgrade their appliances to accept the then more modern natural gas. The decision was made at the system scale and was based on significant, safety, affordability (very important) and reliability improvements. This sets precedent for a similar approach in the modernizing of our thermal infrastructure.

#### Key Point #2:

**LDCs should be allowed to add non-gas customers such as oil or electric baseboard to NPAs when this helps achieve critical scale for cost effectiveness and increases decarbonization, such as with geothermal networks.**

#### Key Point #3:

**Through GSEP pipe data transparency (see HEET maps for the 5yr data available), a community initiated project identification may be possible**, considerably addressing other concerns in the customer section. Facilitating, or considering, customer willingness outside of the LDC process could substantially acclerate the NPA process.

## Impacts to Project Implementation

## Framework Updating

#### Key Point #1:

Given the very tight timeframes, scope, and importance of this work, I propose **reconvening this committee annually** to refine, adjust, and align processes and allow for reengagement with stakeholders. This process is invaluable but simply too short.