

# Non-Gas Pipeline Alternative Working Group

Working Group Meeting #6

March 5, 2025



Energy+Environmental Economics



# Agenda

Time	Topic
10-10:05	Welcome + Agenda
10:05-10:20	NPA Framework Observations by AGO Team
10:20-11:30	Stakeholder Comments Overview, LDC Response and Discussion
11:30 – 12:15	Lunch
12:15-1:45	Stakeholder Comments Overview, LDC Response and Discussion
1:45-2	Next Steps

# The Role of NPAs in the Commonwealth's Energy Transition

ANALYSIS BY:

THE BRATTLE GROUP, obo  
MASSACHUSETTS  
OFFICE OF THE  
ATTORNEY GENERAL

MARCH 5, 2025

FOR:

NPA WORKING GROUP



# Several High-Level Observations

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- NPAs are very unlikely to replace a material share of gas CapEx
  - Given current interpretations of Obligation to Serve and Customer Choice, few NPAs will be implemented; even those will be small end-of-pipe projects affecting few customers and little CapEx
    - ▶ NPAs require 100% participation of directly connected customers – increasingly unlikely as numbers grow
    - ▶ Thus successful NPAs are likely to be few and small
- New CapEx is a key contributor to future Ratepayer Costs
  - Rate base grows quickly with new CapEx; shrinks without it
  - Can some (much?) CapEx be avoided? This would allow costs to fall with throughput, rather than rise
- To achieve widespread electrification and to limit costs, Managed Transition is necessary
  - To achieve scale – making transition simple and relatively painless for customers to get widespread participation
  - Also to reduce costs where possible – avoid CapEx by decommissioning rather than replacing pipe

# 1: The NPA process will avoid very little gas CapEx

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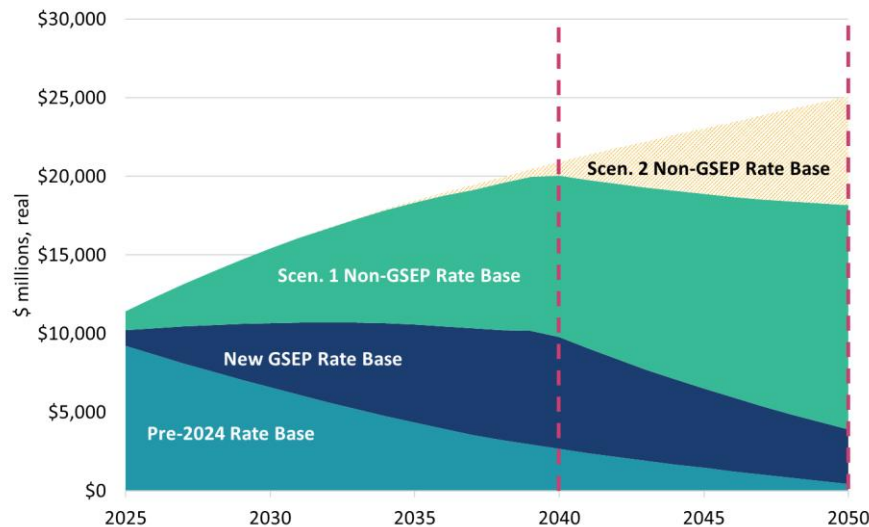
- Even if other issues\* are resolved, current interpretations of Obligation to Serve and Customer Choice mean only small end-of-pipe NPA projects involving just a handful of customers each have a realistic chance of implementation (or even consideration)
  - This likely accounts for a very small share of total system infrastructure and planned CapEx
- Under BAU, voluntary customer-driven transition is not assured for even one customer; 100% participation grows increasingly unlikely as the number of customers grows
  - E.g.: if each customer is 80% likely to participate, 5 custs have 32% chance; 20 custs have 1% chance

\* E.g., Initial viability test (under Interim NPA process) screened out 85% of projects before full NPA consideration; while this might improve with better advanced planning and other process changes, it will not affect the participation requirement

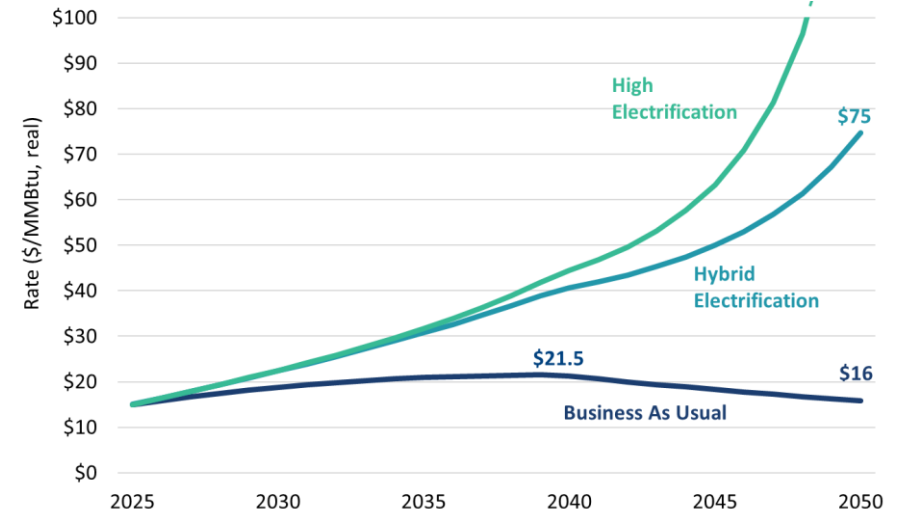
## 2: New Gas CapEx is a key driver of future Ratepayer Cost

- Planned new (post-2025) CapEx will make up the lion's share of future ratebase and costs – if those investments are made
  - Existing (pre-2024) assets will be largely depreciated by 2050
  - Note - it may be helpful to refine our understanding of how OpEx is affected by the CapEx paradigm
    - ▶ Is OpEx driven primarily by net plant, pipe-miles, # customers, etc.? How does it change?

*Rate Base by Existing, New GSEP and New Non-GSEP CapEx  
(Two Scenarios)*



*Bill Impacts  
(Scenario 1, Three Throughput Alternatives)*



### 3: A “Managed Transition” is Needed – for Two Reasons:

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1. Simply to achieve sufficient scale – very widespread electrification
  - E.g., ~1.5 million residential customers => transition ~60,000 residences/year on average, for 25 years
    - ▶ Plus many commercial customers
  - Must relieve customer burdens – financial, informational and logistic – to achieve willing cooperation
2. Geographic coordination enables CapEx avoidance, substantially reducing future costs and potential stranded costs – see above
  - Neighborhood transitions/targeted electrification – to avoid significant CapEx
  - The need to transition specific customers makes it even more important to relieve burdens

# Stakeholder Comments on the NPA Framework, LDC Response, and Discussion



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# Thank You to Stakeholders

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We sincerely appreciate stakeholders' engagement throughout this process including participation in meetings and submitted comments. This process would not have been successful without your participation and feedback.

## Goal of This Presentation

- + Summarize stakeholder comments on the proposed NPA framework.
- + Share LDC responses to these comments.
- + LDCs to provide insights into the updated framework.

## Format & Approach

- + We will highlight illustrative stakeholder comments based on the following criteria:
  - Direct applicability to the NPA framework.
  - Volume of comments on a specific topic.
  - Significance of the LDC response (acceptance or decline).

While we may not be able to address every comment in this discussion, all feedback is valuable and contributes to the ongoing process.

## Use of Today's Feedback

- + Comments from this session will be either:
  - Included in the Apex/E3 report on the process, or
  - Incorporated into the NPA framework.
- + **Reminder:** raw comments and comment matrix will be filed with E3/Apex report

**While full consensus may not be reached, we want to ensure that all feedback is acknowledged and meaningfully considered.**

# LDC Response Categories At-A-Glance

LDC Categorized Response	Count by Response Category	PCT
Accepted	54	28%
Accepted but Modified	48	25%
Acknowledged	31	16%
Addressed in CCP	22	11%
Declined	36	19%
TBD	3	2%
<b>Total</b>	<b>194</b>	<b>0%</b>

# Comments on Topics Outside of NPA Framework

Stakeholders provided comments on a wealth of topics, some of which are not directly actionable within the NPA Framework. These comments are helpful but must be addressed outside of the NPA Framework.



The LDCs appreciate feedback from stakeholders but note that some of these recommendations must be addressed in different forums

- Holistic and system level planning is addressed through IEP, covered in the ESMPs and CCPs
- Heat pump rates and other rate related issues are normally addressed in rate cases
- Climate goals are addressed across a variety of dockets, including EE, CCP, and others
- Ongoing implementation and community engagement will be addressed in subsequent filings, targeted electrification pilots, and CCP

# High Level Stakeholder Comments

## Stakeholder Comments

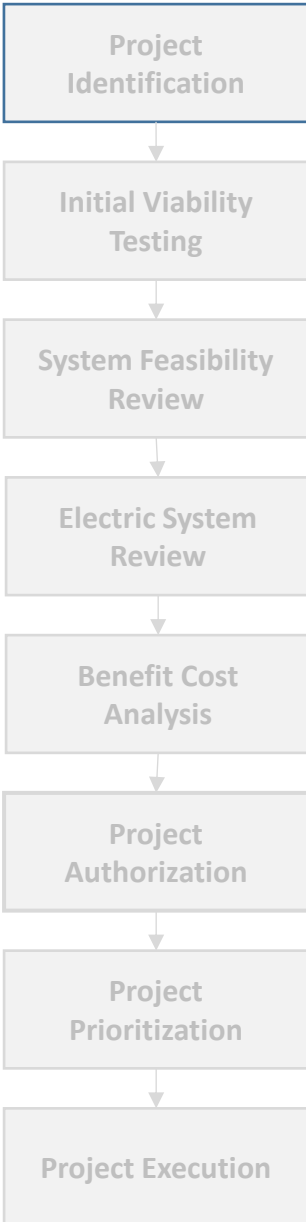
The limited time to review the draft framework and then write comments has limited everyone's ability to engage deeply in the content.

In current form, the NPA process will neither reduce meaningfully the risk of future stranded investment in gas infrastructure nor facilitate material progress toward the highly electrified, decarbonized future planned by the Commonwealth.

## LDC Response

LDCs agree that more time would have been preferred for this process.

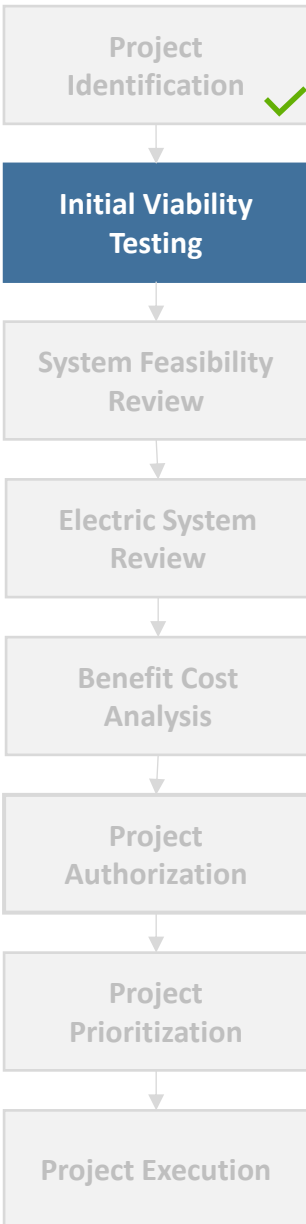
NPAs are one element in an ecosystem of efforts to address the Commonwealth's climate goals, which will be detailed fully in the CCPs. LDCs recognize the importance of strategic investment decisions to avoid stranded costs and reduce emissions, while maintaining safety, reliability, and affordability. For example, GSEP investments play a critical role in reducing leakage, enhancing safety, and supporting GHG reductions. Other demonstration projects will examine targeted electrification opportunities.



# Initial Viability Test: New Customer Process

## Stakeholder Comments

## LDC Response in Framework Document:



While other programs... will be subject to the full NPA review process under the Draft Framework, it appears the LDCs are currently planning for a more limited review of new customer requests.

The approach to new customers described by the LDCs also raises questions regarding whether LDCs could take a more proactive approach in articulating the benefits of electrification over natural gas for a customer considering a new natural gas connection.

The Companies shall engage all new gas customer requests with alternative options and require each customer to sign the “Customer Acknowledgement” form to indicate they have been informed of electrification options and have chosen to proceed with continuing the process of obtaining natural gas service.

Customer Acknowledgment form will outline alternatives (e.g., heat pumps, efficiency incentives) before allowing proceeding with gas service.

Education is the Focus.  
Larger commercial and industrial customers may receive additional project-specific consultations on alternatives.

# Project Identification Stakeholder Comments

## Stakeholder Comments

## LDC Response

Project Identification

Initial Viability Testing

System Feasibility Review

Electric System Review

Benefit Cost Analysis

Project Authorization

Project Prioritization

Project Execution

Emergent and Other Reliability Programs Not Undergoing NPA Review need clearer definitions and careful oversight to ensure NPA review is not bypassed.

LDCs to clarify include in framework document "Emergent" and "Other Reliability" Programs, including creation of two categories of "Emergent" programs.

Need for Proactive Geographic Planning: The NPA Framework should include a plan for identifying geographically and financially optimal locations for NPAs at the system level, in addition to case-by-case project identification and analysis.

This may be outside the framework scope and LDCs plan to discuss IEP in the CCP.

# Initial Viability Testing Stakeholder Comments

## Stakeholder Comments

The gas planning process should ensure that there is sufficient time to fully evaluate NPA alternatives.

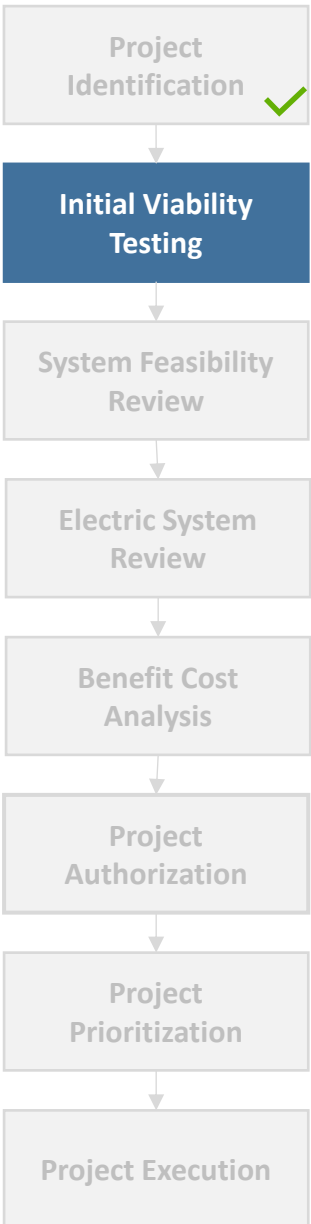
The Initial Viability Testing step proposed by the LDCs will eliminate most projects from even being considered for an NPA, ensuring that NPAs will replace very few gas pipe projects.

## LDC Response

The LDCs will work on expanding the planning horizon, noting that this is a fundamental change in the planning process that will take time to evolve and will need flexibility to account for changes in the system that may result in changes to planned projects as risk on the system changes.

The LDCs were directed to implement an initial NPA analysis without opportunity for stakeholder engagement and apply it immediately to on-going capital projects. Given the timing of the Department's directives in December 2023 and the implementation of the 2024 GSEP program, limited the ability for NPAs. The Companies, however, will be able to review projects that have longer time horizons, increasing likelihood of NPAs going forward.

One objective of Initial Viability Testing is to ensure efficient and intentional use of engineering resources.



# System Feasibility Review Stakeholder Comments

## Stakeholder Comments

## LDC Response

Project Identification ✓

Initial Viability Testing ✓

System Feasibility Review

Electric System Review

Benefit Cost Analysis

Project Authorization

Project Prioritization

Project Execution

The electric feasibility review should account for electric system expansions ultimately needed; any necessary expansion, however, may not be directly attributable to this NPA.

It is important that gas and electric system planning is coordinated to ensure enough power is available to support the transition from gas to electricity. This is especially true in areas that are already constrained on the electrical side.

The goal is to achieve optimization between electric, gas and customer infrastructure. The electric infrastructure costs are not assigned to the NPA but the EDC must review its rate impacts.

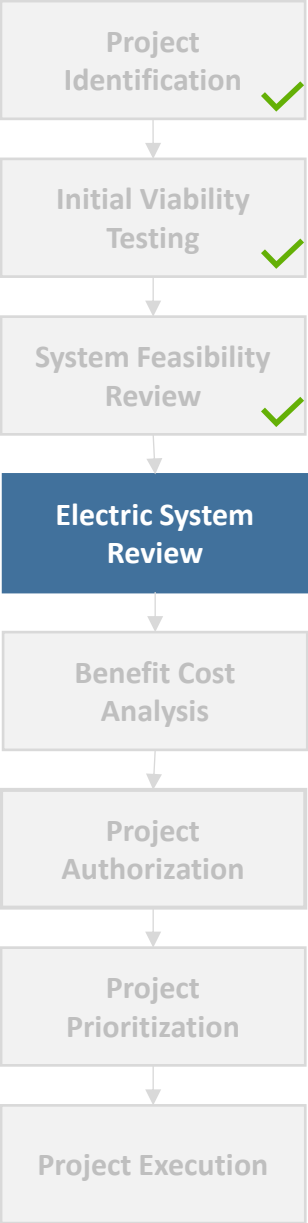
This may be out of scope for NPA process. LDCs plan to address in the IEP section of CCP.



# Electric System Review (IEP) Stakeholder Comments

## Stakeholder Comments

## LDC Response



The current gas planning process must be supplanted with a broader Integrated Energy Planning (IEP) process to achieve the Commonwealth’s climate mandates, while keeping customer costs affordable.

LDCs will address in the IEP section of CCP.

In a BAU future, the large majority of future system costs will result from capital investments that have not yet been made, and thus may be, in principle, avoidable. By 2050, about 98% of the gas rate base will consist of investments made after 2024.

The LDCs acknowledge the finding presented.

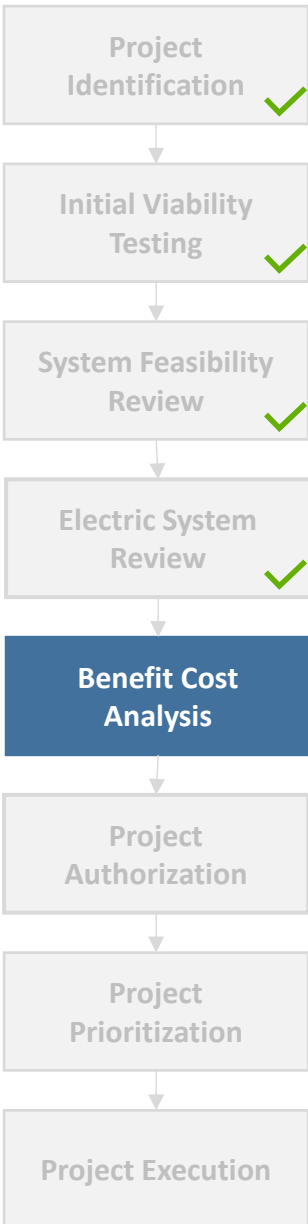
Allow flexibility for new approaches to emerge to identifying and executing NPA projects.

The LDCs will consider a wide range of technologies as part of the NPA.

# Benefit Cost Analysis Stakeholder Comments

## Stakeholder Comments

## LDC Response



Gas RIM should not be used; Some Elements of proposed BCA may not be well suited for evaluation of NPAs, including the gas RIM test, could tell a misleading story in the case of NPAs. Request for more BCA examples provided to stakeholders. Don't include lost gas revenue in GasRIM.

The LDC s have an obligation to understand gas customer impacts associated with NPAs but remain open to modifications to the calculations. The LDCs will use the RIM but will work to refine inputs.

When there is a proposal that comes close to a BCA of “1”, careful consideration should be given before dismissing that project completely.

The LDCs agree with the statement and seek to propose flexibility.

Non-energy impacts should include not just safety alone, but also energy security, resilience value, and health impacts as a safety and an equity issue.

The LDCs find that the multiple tests provide helpful and relevant information, especially early in development of the NPA process and plan to include all four standardized tests in the NPA framework. The TRC test will leverage non-energy impacts identified through the energy efficiency programs robust evaluation process. Additional avoided costs could be added in as inputs over time.

# Project Authorization

## Stakeholder Comments

## LDC Response

Project Identification ✓

Initial Viability Testing ✓

System Feasibility Review ✓

Electric System Review ✓

Benefit Cost Analysis ✓

**Project Authorization**

Project Prioritization

Project Execution

Use a balanced approach to project prioritization.

The utility has an obligation to pursue all NPAs that are least-cost, least-risk to the utility. To the extent a utility feels it must prioritize NPAs, the utility should balance maximizing avoided capital on the LDCs system, EJCs, and timeline constraints.

The Framework's Environmental Justice Considerations Need Development.

All priorities will remain but they will not be ranked.

The LDCs note that prioritization is a practical necessity for resource constraints, some of which are beyond utility control. The LDCs do not agree that the specific obligation listed in the comment is accurate.

The LDCs agree that there are several other considerations when prioritizing a project. The LDCs have added language that reflects this.

# Project Execution

## Stakeholder Comments

## LDC Response

Project Identification ✓

Initial Viability Testing ✓

System Feasibility Review ✓

Electric System Review ✓

Benefit Cost Analysis ✓

Project Authorization ✓

Project Prioritization ✓

Need More Information and opportunity to discuss project execution

United recommends that the LDCs be explicit in this framework about what they plan to report on during NPA implementation and after NPA project completion.

The LDCs have added more detail around project execution in the framework.

LDCs will establish level of reporting in subsequent DPU filings after approval of framework.

Project Execution

Customer Engagement

Impacts to Project Implementation

# Customer Education, Engagement and Commitment Stakeholder Comments

New Customers



Existing Customers

## Stakeholder Comments

Customer Acknowledgement is not an appropriate way to offer NPA, need a more engaged approach.

Sending customers to the Mass Save Website to navigate themselves is not effective.

## LDC Response

LDCs will document the separate process New Customers go through, and consider a language update for the attestation form which more explicitly demonstrates the education LDCs provide around alternative energy options. For new customers, the LDCs cannot commit to energy counseling, BCA for customers, or other energy efforts for current customers.

LDCs agree to include more generic information about NPAs on the website with directions to MassSave and other existing programs.

# Impacts to Project Implementation Stakeholder Comments

Non-Gas Customers



Changes in Project Viability

## Stakeholder Comments

LDCs should commit to not accepting new customer requests in areas where NPA Projects have been completed.

LDCs should stop accepting new gas connections in areas that have been identified as possible sites for NPA projects. For example, the Companies should also pause new gas service in areas with potential NPA projects that have passed the “Initial Viability Testing” stage of NPA project identification.

## LDC Response

Once an NPA passes the initial viability test and is approved internally for implementation, the LDCs agree to commit to halt new connections to the portion of the system targeted by the NPA.

The LDCs agree to hold interconnections, but the LDCs will proceed with interconnections in segments as each NPA is authorized. If the NPA does not achieve sufficient customer participation, the Companies will reopen gas interconnection.

# Framework Updated Stakeholder Comments

Updates

## Stakeholder Comments

The framework should go through more frequent review, stakeholder, and update processes.

## LDC Response

LDCs address NPA framework modifications in the NPA framework. The LDCs anticipate submitting any updates to the framework as part of the CCP filings. In addition, the LDCs anticipate providing the NPA framework and criteria used for specific projects in filings with the Department, at least annually through the GSEP and cost recovery proceedings, which will provide an opportunity for input and guidance on the NPA framework.

# Summary of NPA Identification Requirements



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# Summary of NPA Identification Requirements (1-7)

Requirement Number	Requirement
1	The Companies shall initiate the NPA Identification Process as defined in this NPA Framework for all projects identified as requiring such review.
2	The Companies shall review viable NPA candidates with the following NPA technologies and solutions, or combination of solutions, as defined in Table 2 and provide results of said evaluation.
3	All projects within the applicable programs will be run through an initial viability test to evaluate if projects are viable NPAs candidates.
4	For all projects which pass the Initial Viability Testing, the Companies shall produce a System Integrity Review. LDCs may also conduct a Customer Viability review following the Gas System Integrity review to gauge the likelihood that customers would be willing and able to electrify.
5	For all projects which pass the Gas System Integrity Review, the Companies shall work with the corresponding electric distribution system operators to attain a Step Zero Electric System Review.
6	For every project which passes the system feasibility review, the Companies shall request an Electric System Impact Assessment from the relevant electric distribution system operators. This electrification impact assessment shall include, at a minimum, cost and timing estimates for any required electric system upgrades.
7	For every project which passes the initial viability test and the Electric System Impact Assessment, the Companies shall furnish a BCA that includes one or more of the following tests as appropriate - a gas and electric rate impact measure (RIM), a participant cost test (PCT), and a total resource cost test (TRC). For the TRC, the Companies shall use the most currently approved TRC in the 3-year Energy Efficiency Plan with all applicable values.

# Summary of NPA Identification Requirements (8-16)

Requirement Number	Requirement
8	The Companies shall consider all funding sources for any NPA undergoing BCA evaluation, including reallocation of funds from different value streams within the NPA, so long as it does not turn any BCA negative.
9	Companies will pursue a viable, cost-effective NPA with the BCA tests $\geq 1$ . If the Companies proceed with an NPA which has failed one or more of the BCA tests, the Companies shall document sufficient evidence in support of their decision to proceed.
10	The Companies shall update their project authorization forms to include an NPA review section for all project types listed in Table 1. For each of these projects, this NPA review section shall include the results of each review process step undertaken for the project. If a project fails the review process, documentation up to the point in the NPA Identification Process must be provided.
11	If NPA projects must be prioritized for execution, the Companies shall prioritize the projects by and in the order of their impact to EJCs, avoided GHG emissions, and avoided gas capital. Prioritization will also consider project need and timing, ability to execute, customer needs, and other factors that may impact project success, such as the need to coordinate with state or municipal work.
12	The Companies shall engage all new gas customer requests with alternative options and require each customer to sign the “Customer Acknowledgement” form that they have been informed and have chosen to proceed with gas or an NPA solution.
13	Each Company shall develop a Customer Engagement Framework informed through the targeted electrification pilots
14	The Companies will only consider the natural gas customers within an NPA Service Area at time of project authorization.
15	The Companies may evaluate the NPA in the event of emergent situations or changes in customer participation. The Companies shall make all necessary investments to deal with emergent situations where applicable without impacting the prudency review of the NPA decision.
16	The Companies are required to update the NPA Framework at a minimum every 5-years and submit the updated version to the Department for review with each CCP filing. Specifically, the Companies shall provide updates on technologies and solutions which may act as NPAs, the BCA, and Community Engagement topics. The Companies shall solicit stakeholder feedback for each iteration it submits to the Department.

# QUESTIONS?



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# Next Steps



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# Next Steps

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## + NPA Framework will be filed April 1

## + Technical Subcommittee

- Technical Subcommittee March 11<sup>th</sup> – let us know if any questions

## + Materials

- All of today's materials will be posted to the working group website (<https://npaworkinggroup.com/>)