

NPA Working Group: NPA Framework Comment Submission Due January 29

On behalf of (company/organization name): RMI

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High Level Comments

Key proposal strengths: This is a thoughtful proposal that ensures many projects are evaluated for NPA potential while maintaining flexibility to allow more projects to advance.

The process as outlined casts a wide net in terms of eligible projects for NPA consideration and leaves flexibility in key steps - e.g., in screening against the BCA tests – that will support the LDCs adapting their approach as projects advance and learning is gained.

Key proposal challenges: The draft NPA framework leaves important details unspecified that could be clearer, and it could more clearly assert how NPA candidates will be proactively identified.

As described in the following comments, there are several points that are not well clarified in the existing format of the draft NPA framework, including how prioritization will be applied between the initial viability step and the later project prioritization step, and how early system needs can be identified and screened for NPA suitability. Additionally, while the live discussion in the technical subcommittee acknowledges the value of a proactive approach to identify attractive candidate NPAs with as much lead time as possible, the framework as written is not clear as to how this idea will be applied, or to what extent NPA evaluation simply relies on waiting for the normal course of capital planning to bring forward projects for screening.

Project Identification

Key Point #1: The NPA framework clarify how LDCs will maximize long-term, proactive identification of the most promising NPA candidates.

As written, the draft NPA framework begins with the identification of a need on the gas system, followed by a preliminary scope document which includes preliminary engineering and cost estimates. While the draft framework document does not include a detailed explanation of these steps, it shows that the NPA identification process does not begin until after the preliminary scope document is complete. This makes sense in the context of

the DPU's directive to apply an NPA analysis to all investments in new natural gas infrastructure at a project level (from order 20-80-C). However, it is not clear that this approach alone maximizes the potential to identify the most promising NPA candidates as far in advance as possible, in order to prioritize efforts to execute these NPA projects.

For instance, it is not clear from this document whether all segments of leak-prone pipe have already received a preliminary scope document. Leak-prone pipe segments are already known to require capital investment, e.g., for replacement under GSEP. If developing preliminary scope documents for every segment of leak-prone pipe will be a multiyear effort, there could be a missed opportunity in the near term to conduct a quick screen of the entire GSEP leak-prone pipe portfolio to identify promising NPA candidates. The criteria for such a quick screen would likely evolve over time but could reflect elements of the initial viability testing criteria identified in this draft framework, such as customer composition and timing of project need (if known). Without a preliminary cost estimate for every segment, quick estimates could be applied – e.g., segments with low customer density per length of main could be prioritized, as could assets serving relatively few customers per discrete segment.

This issue of proactive identification of projects, including projects where the timing of need is beyond the LDC's gas capital plan, has been discussed in the technical subcommittee meetings. It may be that the LDCs intent with this draft framework is to apply the viability testing quickly to all conceivable projects, including those with greater than 5 years until the project need. If so, our recommendation is simply that the framework be clarified to specify how that proactive effort be applied. If not – if waiting on the preliminary scope document constrains the pool of potential NPA candidates to a much smaller set than the foreseeable system needs – then our recommendation is to identify a parallel process the LDCs will pursue to proactively identify promising candidate projects, including those that may be too far in the future to have receive a preliminary scope document. Such an approach would rely on available indicators that can identify a system need, even where project-specific engineering has not yet been applied, e.g., through the GSEP leak-prone pipe portfolio or through the asset risk scoring that informs LDC's distribution integrity management programs.

The DPU's directive to apply NPA analysis to all investment in new gas infrastructure informs the approach as written to review every project for NPA suitability as it comes through the normal project identification process. However, this approach by itself may fail to identify the best projects in the most timely manner. The LDCs can clarify in the draft NPA framework whether they believe their approach does in fact present the best path to

identify the most promising NPA candidates, or if an additional proactive approach could unearth more of these projects more quickly, so that they can be prioritized for execution.

Initial Viability Testing

Key Point #1: The connection between initial viability testing and project prioritization can be better clarified

The description of the initial viability testing step first indicates that its purpose is “to evaluate if projects are viable NPA candidates.” This language suggests it is a simple pass/fail screening, which is consistent with the title “viability testing.” However, subsequent language in this section indicates the criteria applied in this step will be used for prioritization, e.g., the statement that this step will ensure “appropriate candidates with a high likelihood of success” are prioritized, or the visualization that indicates NPA suitability ranges from low to high. Then, later in the process flow, the “project prioritization” step indicates a sequential set of prioritization factors starting with projects in environmental justice communities.

The NPA framework can better clarify how the initial viability testing will be applied to prioritize projects. E.g., is the intent to apply a screen initially that only passes through the projects with the highest likelihood of success, or to pass through all viable projects and prioritize them later in the process flow? The framework also references an “NPA Suitability Score” but does not describe how such a score will be calculated.

Our recommendation for this point in the flow is to do both – assess viability on a simple yes/no basis, and sort projects into different priority tiers. It is likely that a large number of projects could pass an initial viability screen at this point (before any detailed evaluation of gas and electric system viability or cost-benefit analysis). There is a risk that if a large number of projects are passed through this step and on to engineering and economic review, they will overwhelm the LDC’s ability to effectively evaluate them all. Or on the other hand, there is a risk that a viability screen is applied very strictly such that few projects are considered for NPAs and many viable candidates are omitted.

Certainly we can expect the application of this process will be iterative and become more effective over time. We encourage the LDCs to apply some degree of sorting and prioritization at this point. It is possible many projects will pass an initial screen as “viable” but will need to be sorted based on project attractiveness and likelihood of success. We appreciate the point that specific criteria will evolve over time but encourage the LDCs to give more specificity as to the initial criteria that will be applied. For instance, they may include indicators of cost effectiveness (e.g., customer composition includes customers

considered “easier” to convert off of natural gas, and customer density is low); or indicators that point toward higher likelihood of successful execution (e.g., small number of customers who have to reach a consensus decision, and substantial lead time before project need).

If projects are sorted by degree of attractiveness as NPA candidates, early iterations of this NPA framework may be more narrowly focused on the highest scoring projects, while subsequent iterations can expand the pool of projects subject to detailed review as LDCs gain experience with the process.

Gas System Feasibility Review and Electric System Feasibility Review

Key Point #1: Clarify how the electricity system review would be applied to pass or screen out projects

The description of electricity system review indicates candidate projects can pass or fail at this step but does not specify any criteria for making a pass/fail decision. The description does indicate that the electric distribution system operator will provide results of a benefit cost analysis using the eRIM test. But the results of that test are to be considered alongside other cost tests in the subsequent step (benefit cost analysis), and it is not clear whether this framework proposes to use the eRIM test in isolation as a pass/fail screen. The language in the Benefit Cost Analysis slide refers to “every project which passes the initial viability test and the Electric System Impact Assessment,” which indicates projects may pass or fail the electric system review. The LDCs can improve this framework by clarifying whether and how projects may fail the electric system review.

Benefit Cost Analysis

Key Point #1: Maintain the flexibility described in application of the benefit cost analysis tests as the LDCs develop early projects and learn as they go.

The draft NPA framework states that the LDCs will pursue viable NPAs in which all BCA tests produce results greater than or equal to one, and that they also have flexibility to proceed with NPA if one or more BCA results is less than one, depending on project-specific circumstances. We support this flexibility. At this early stage in the evolution of NPA programs in Massachusetts, it is not clear precisely what construction of BCA tests will best meet the needs of ratepayers. We encourage the LDCs and the DPU to retain this flexibility in the early years of NPA development in the state and revisit the potential for

more specific definition of cost-effectiveness limits after a few years of progress and learning.

Key Point #2: New cost-sharing mechanisms will be needed across electric and gas utilities in order to most effectively design NPA projects that balance costs to electric and gas ratepayers.

The BCA framework describes evaluation of impacts to both gas and electric ratepayers. We understand there remains uncertainty as to the exact composition of these analyses, including how future revenues lost for gas service and gained for electric service should be accounted for. Regardless of these details, it will be important to evaluate the impacts to both gas and electric ratepayer bill impacts. In the technical subcommittee, presenters conveyed the idea that specific NPA projects could be designed to satisfy multiple cost tests, for instance by adding ratepayer-funded bill credits in the scenario that a participant cost test was less than one, while an electric ratepayer impact measure was well over one. This type of flexibility in adjusting investments between the utility and participating customers is important in allowing more NPAs to succeed. But to maximize this flexibility, utilities will need the ability to direct funding across the line dividing gas ratepayers from electric ratepayers. If, for instance, a project offers large savings to gas ratepayers but requires increased spending on electricity infrastructure, it may be justified for gas ratepayers to fund an electricity system investment, so long as the impact to both gas and electric ratepayers is beneficial. We encourage the LDCs, in presenting this framework, to identify this need and pursue additional guidance or rulemaking through the DPU to establish the mechanisms by which gas and electric ratepayer funds could be applied in a fungible manner to maximize project benefits.

Project Authorization and Prioritization

Key Point #1: Design prioritization for early projects to produce a representative mix of attractive NPA candidate projects.

As noted in our comment in the Initial Viability Testing section, it is not clear in this draft framework whether that early step will prioritize projects or only be a simple pass/fail screen. If that early step is a simple pass/fail, then prioritization occurs only in the “project prioritization” step. In this case, it is possible that many viable projects will advance to prioritization and then be sorted based first on their location in an environmental justice community. It is certainly beneficial for LDCs to generate early candidate projects in EJC communities in order to build practice in meeting the unique needs of EJC and resident customers, and to produce NPA projects in EJC communities over the long term to ensure residents of these communities share in the benefits of NPA projects. However, the draft framework is not

clear on exactly how this prioritization will be applied. It is possible the prioritization as presented could result in a set of early projects that are exclusively located in EJC communities, a result which bears its own set of risks. These risks include the potential that early NPA candidate projects fail to engage a representative mix of Massachusetts customers to understand the varying needs of different groups, or, worse, that residents of EJCs view early NPA projects with suspicion, given this is a novel and uncertain approach and could be applied only in EJCs and not to a broader mix of customers. We encourage the LDCs to produce a more specific explanation of how prioritization will be applied, such that it results in a mix of projects that includes EJCs as part of a representative mix of projects while also prioritizing projects with other characteristics that make them likely to succeed – e.g., high cost-effectiveness scores, and low quantities of customers needed to reach consensus for project execution).

Project Execution

n/a

Customer Education, Engagement and Commitment

Key Point #1: For new customers, acknowledge the limitations of the education-only approach described and the interaction with potential DPU actions on line extension policies.

We do not object to the LDCs offering prospective new customers with information about alternatives to natural gas. However, we expect this approach on its own to have little effect in encouraging customers to consider alternatives to gas. NPA projects for existing customers are envisioned to include financial incentives to participating customers, but NPA projects for new customers are not. An effective NPA framework would include some element of financial incentive for new customers as well. This could take either of two paths. First, the DPU may choose to amend LDCs' line extension policies in a way that shifts some or all of the cost burden of service extension onto the new customer, effectively providing an economic incentive for choosing alternatives to gas service. Alternatively, if the line extension policy remains unchanged and LDCs continue to socialize costs of service extension among their ratepayers, the LDCs could offer a direct payment incentive for prospective new customers who choose efficient alternatives to gas service that align with the state's climate goals, e.g., electric heat pumps or geothermal equipment for space heating. We recommend that the state's NPA framework take one of

these paths to incorporate an economic incentive for NPA adoption in the case of new customers.

Impacts to Project Implementation

n/a

Framework Updating

n/a

Other (flexible NPA approaches)

Key Point #1: Allow flexibility for new approaches to emerge to identifying and executing NPA projects

Overall, this draft framework identifies how NPA screening, evaluation, prioritization, and execution can be inserted into a flow that's built upon the standard identification of gas system capital investment needs. This process suggests the path for a successful project will involve early identification of an attractive NPA candidate and diversion from the typical gas capital planning process into an NPA planning process, on a project-by-project basis. The draft framework is thoughtful, maintains some flexibility for adjustment based on learning with experience, and will likely identify viable NPA candidates. However, it is also possible that this framework misses other approaches to NPA identification that could also produce valuable results, and we encourage the final framework to leave the door open for LDCs to introduce other creative approaches to NPA project identification and execution. Such creative alternatives need not be defined in advance, but we offer one here to illustrate the concept. An LDC could identify its entire inventory of leak-prone service lines, each serving a single building, and standardize an NPA offer for the entire set of customers served by these leak-prone service lines. Such an approach could quickly reach a large number of customers with a simple offer (e.g., a fixed monetary incentive for opting out of service line replacement and discontinuing gas service). Such an approach could streamline the NPA project design process for a large number of small projects, rather than subjecting each to detailed analysis one-by-one. This concept is offered as just one example of a creative approach to identifying NPA candidates outside of the framework identified above, and we encourage the final framework to allow for continued innovation, recognizing NPAs are new to Massachusetts LDCs and new approaches are likely to emerge.