September 27, 2024

VIA ELECTRONIC MAIL

Hon. Michelle L. Phillips, Secretary
New York State Public Service
Commission 3 Empire State Plaza
Albany, New York 12223-1350
secretary@dps.ny.gov

Re: CASE 20-G-0131 – Proceeding on Motion of the Commission in Regard to Gas Planning Procedures.

NOTICE SEEKING FURTHER COMMENTS

Dear Secretary Phillips:

Advanced Energy United ("United") submit for filing the attached comments in response to the *Notice Seeking Further Comments*, Issued July 3, 2024, in the above referenced proceeding.

Respectfully submitted,

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State of New York Public Service Commission

In the Proceeding on Motion of the Commission in Regard to Gas Planning Procedures	Case 20-G-0131

I. Introduction and Background

Advanced Energy United ("United") views Non-Pipeline Alternatives ("NPAs") as a critical regulatory tool for navigating this moment of the gas transition and managing the ratepayer risks of stranded assets and upwardly spiraling gas rates as customer counts and throughput decline. New York has provided some of the earliest examples of NPAs in action, and we appreciate the Commission's continued dedication to creating an intentional and consistent framework around their widespread application.

Given that NPAs are new and relatively unfamiliar to gas local distribution companies ("LDCs") and the market of third-party technology and service providers, that consistency – along with transparency and predictability – are important for NPAs to reach scale. Advanced energy companies are eager to understand how to develop and shape offerings that both meet specific utility needs and create the economies of scale needed to deploy innovative NPA solutions faster and at lower cost. We offer the below comments in response to select questions in the Notice Soliciting Further Comment based on our own best understanding of NPAs today, but encourage the Commission to continue to refine the framework as it gains experience with these new processes over time.

II. Responses to Select Commission Questions

> *22. Have you or any group you are affiliated with actively suggested or discussed NPAs with an LDC? If so, in what way did you submit your suggestion (e.g., in the context of a rate case, one-on-one interaction with the LDC), what response did you receive, and what was the outcome?*

United and its member companies have discussed NPAs with various LDCs in states including New York, New Jersey, and Colorado. Many of these conversations have begun – and some have remained – in docketed proceedings given that few LDCs outside of New York have existing

NPA programs and/or have embarked on NPA design without explicit Commission direction. Some utilities outside of New York have also, to date, preferred to design NPAs internally and then present them in filings for review (e.g., a Gas Infrastructure Plan) instead of developing portfolios of third-party services and resources via conversations with or solicitations to market participants. This is not our recommended approach.

In the case of gas demand response ("DR"), which is a newer resource that can be deployed generally as peak load management or specifically as part of an NPA, United member company Copper Labs ("Copper") has been raising awareness of its potential in several proceedings and with LDCs directly. For example, in New York, Copper worked with National Grid on a series of gas DR pilots and a summary of results from the first pilot is available online.[1] Copper also shared comments to the New Jersey Board of Public Utilities on the second triennium of energy efficiency and peak demand reduction programs in June 2023 (Docket No. QO23030150) on the need for better gas consumption data in the context of gas load flexibility, and filed comments in Colorado Docket No. 23M-0466EG, a miscellaneous proceeding to examine the role of third-party providers with respect to virtual power plants, gas DR, and neighborhood electrification. Copper then responded to – and was selected for – a Request for Proposal ("RFP") from Xcel Energy for a gas DR NPA pilot.

United member company Opower (Oracle) has also deployed gas DR through consumer behavior change. Without using price signals or installing devices, consumers can be coached through saving energy during times of peak demand. According to Michigan's 2021 Demand Response Potential Study, gas behavioral DR has the second highest achievable potential at around 20% share in total. The study also noted that the statewide natural gas DR achievable potential is expected to grow substantially over the 20-year study timeframe.[2]

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[1] *Harnessing Real-Time Data to Keep the Heat On,* Copper Labs. October 19, 2022. Available at: https://www.copperlabs.com/harnessing-real-time-data-to-keep-the-heat-on/

[2] *Michigan Demand Response Statewide Potential Study (2021-2040*), Reference Number 148595, August 23, 2021. Available at: https://www.michigan.gov/-/media/Project/Websites/mpsc/workgroups/ewr-study/mi_dr_statewide_potential_study_final_draft_report.pdf?rev=1fe92413566a425dab07212440c421ba

United itself continues to support further NPA framework, cost-benefit analysis, and RFP process development, primarily within comment opportunities in proceedings including Colorado Docket No. 24M-0261G, Maryland Docket No. 9707, and the Illinois Future of Gas Workshop series.

> *23. What criteria makes a particular area of an LDC's service territory favorable for an NPA? What information is required to determine if a particular geographic area, cluster of customers, customer class, or use of natural gas is suitable for an NPA? Be specific in what would make an NPA especially beneficial in those locations, for a group of customers, or customer class. How should those benefits be measured?*

Areas of an LDC's service territory that are facing either distribution or supply constraints, areas with aging or leak-prone pipe ("LPP") requiring near-term full replacement, and areas with individual (or small subsets of) customers for whom service is unusually expensive are often good candidates for NPAs.

Where there is aging or LPP in need of full replacement, utilities face a decision point wherein they can decide to either spend significant ratepayer dollars building traditional infrastructure that is at high risk of becoming stranded, or pursue an alternative. Similarly, if an asset is in need of a particularly expensive upgrade or replacement (as may be the case with some customers connected to the transmission system), and only serves a small number of customers, it may be both easier and cost-effective to work with that customer or set of customers to design a non-pipe solution. For example, Pacific Gas & Electric has completed a total of 88 small NPA projects that electrified 105 customers to enable decommissioning of 22 miles of transmission pipelines.[3]

Load flexibility, gas DR, and targeted deployment of electrification are especially well-suited to address distribution or supply constraints as NPAs. Distribution constraints represent situations where there is plenty of gas supply, but it can be difficult to get that gas to end-use customers in the amount needed. This can happen in situations where, for example:

- Severe winter storms create a drop in pressure that effectively reduces the amount of gas the system is able to deliver;

[3] *Non-Pipeline Alternatives: Emerging Opportunities in Planning for U.S. Gas System Decarbonization*, RMI and National Grid. May 2024. Available at: https://www.nationalgridus.com/News/National-Grid-and-RMI-Examine-Role-of-Non-pipeline-Alternatives-in-the-Energy-Transition/

- Utilities see rapid expansion in their customer base (e.g., as a result of conversions from propane or fuel oil) but have not yet expanded their distribution pipes; or
- Emerging policies aimed at supporting energy decarbonization limit the attractiveness of gas utility spending to upgrade existing distribution networks.

In these situations, problems often tend to be localized in particular neighborhoods where current distribution piping may not be large enough to meet peak gas loads, and so reducing the rate of demand for select customers during peak periods can help ensure that the gas system is able to meet customer needs despite system limitations without losing pressure or risking outages.

Supply constraints occur when there are limitations on the total amount of available gas in the utilities' reserve storage systems. For example, this can happen when prolonged winter storms drive consumption much higher than forecasted and create a shortfall in the amount of total gas available to the utility and its customers, or when geopolitical events (such as the ongoing war in Ukraine) limit the overall availability of gas for purchase. In these cases, effects are more broadly felt, and longer DR events that essentially comprise multi-day conservation efforts have potential to help make existing supplies go further while still meeting essential customer needs.

To better understand where demand-side NPAs could be particularly helpful, utilities could look for low-pressure zones during times of extreme cold weather and model potential impacts of particularly severe storms (potentially accounting for localized climate change projections over the coming decade), along with expected customer or load growth or contraction. For load flexibility, DR and electrification solutions, impacts can be directly measured at participating sites by using hourly or more frequent meter data (e.g,. using a randomized control trial approach or a baseline analysis), and utilities can then use that data to understand how these kinds of initiatives could benefit the system at different scales and across different neighborhoods or regions.

New modeling tools, including those capable of modeling and simulating both the electric and gas systems together, will be particularly helpful in understanding where the electric distribution system already has available capacity for an electric NPA, where the electric system might

benefit from electrification (particularly with respect to summer peaks), and what types of electrification technologies or load flexibility/demand reductions would be most efficient (e.g., ground source versus air source heat pumps).

24. What are the largest barriers to developing NPAs as an alternative to investing in gas distribution infrastructure?

One barrier is the need to adequately prove out a diversity of different NPAs to show that they can reliably deliver the same performance and net benefits (or more) compared with the infrastructure they would offset. There is a national need for additional research into NPA strategies and efficacy, but gas utility research and development ("R&D") budgets tend to be relatively small compared to those of electric utilities, limiting the rate of research that can be done. New York's utilities have offered many of the initial data points on how to construct NPA portfolios (at least within the United States), though we look forward to the publication of more data, analysis, and verification on how several projects have performed from both the utility and customer perspective.

From a market perspective, approaching a scale at which it is worthwhile for a third-party provider to develop a customized offering is challenging, especially when most NPA RFPs to date have been relatively small. This has likewise been a problem for electric utilities' non-wires alternatives projects. The state and its utilities may consider how it can aggregate bids and contracts to ensure that it gets a meaningful number of options that can push costs down via competitive forces, while also scaling private investment and workforce in a predictable and stable way.

Other barriers include lack of interval metering, which limits the ability to target and measure NPA programs, as well as lack of transparent data on avoided costs.

Additionally, particularly for comprehensive NPA approaches like neighborhood electrification, planning timelines and customer education and preferences can pose a significant barrier (e.g., if a single customer is reluctant to electrify, it may be impossible to fully electrify that neighborhood under the current application of the "obligation to serve").

26. What sort of process, if any, should be available for a customer, group of customers, municipality, town, or other entity to propose a managed transition towards full electrification from traditional utility gas service? What set of information is necessary to compile a complete proposal? What information should LDCs make available to customers regarding who might wish to develop such a proposal? How far in advance is the information needed? Do interested stakeholders need professional assistance in developing proposals? In your response, be as detailed as possible about the type and granularity of data needed from the LDC, including data related to time-to construction, how the LDC can confirm the participants, etc.

In response to this question, United acknowledges that this is uncharted territory for all LDCs, municipalities, towns, counties, etc. The Commission may be able to gain insight over the next several years in two ways:

1. Several campuses have embarked, or are embarking, on comprehensive electrification projects, including California State University Monterey[4] and Thompson Rivers University[5] in British Columbia, Canada.
2. The Colorado Energy Office is beginning to implement House Bill 1370 (2024), which will identify several "gas planning pilot communities" who will serve as champions for neighborhood-scale alternatives projects. For affected dual-fuel utilities and gas planning pilot communities, the bill outlines required roles and coordination, data needs, and other considerations when identifying which neighborhood-scale alternative projects to pursue. If successful, this framework could serve as a model for New York.

27. How should NPA Suitability and Screening Criteria be applied by an LDC seeking to justify development of a gas transmission or distribution project?

a. Should an LDC be required to identify all projects in its current capital plan that meet the NPA Suitability and Screening Criteria, including when a NPA solicitation will likely be issued for those projects? What information about these projects and associated NPAs should be provided?

Yes. It would be helpful for both general transparency and organizations and solution providers that would be interested in participating or supporting these projects. Specific information could

[4] *Application of Pacific Gas and Electric Company (U 39 G) for Approval of Zonal Electrification Pilot Project and Request for Expedited Schedule*, Pacific Gas and Electric. California Public Utilities Commission Application No. 22-08-003. August 10, 2022. Available at: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M496/K451/496451495.PDF

[5] *Kamloops university's district energy plan reduces CO2*. BC Hydro, August 4, 2023. Available at: https://www.bchydro.com/news/conservation/2023/tru-district-energy.html

include the desired project timeline, scale, regional factors (e.g., relating to customer considerations or other key features), and specific benefits desired or expected (e.g., gas peak load management, distribution system decommissioning, etc.).

b. Should an LDC include NPA Suitability and Screening Criteria information as part of the rate case process? For example, should an LDC include such information in capital expenditure workpapers, and, as part of the justification for traditional utility plant, explain the process and decision to move forward with a traditional project or NPA for projects that pass the Suitability and Screening Criteria?

Yes. This is key to minimizing ratepayer risk while maintaining reliable and safe service during these interim years, and is the new standard in Massachusetts:

> Going forward, the Department states that as part of future cost recovery proposals, LDCs will bear the burden of demonstrating that NPAs were adequately considered and found to be non-viable or cost prohibitive to receive full cost recovery.[6]

Colorado is similarly expanding its use of NPAs:

> Projects that must be subject to Public Service's alternatives analysis process for the 2025 [Gas Infrastructure Plan] are all new business planned projects and all capacity expansion planned projects. To the extent certain system safety and integrity projects are suitable for NPA analysis, given the likelihood of successful alternatives and timing concerns, we strongly encourage the Company to include these projects in its alternatives analysis process. We believe, as potentially true for all project types, alternatives to system safety and integrity projects could offer the potential for meaningful cost savings and other benefits. Customers should not miss out on cost savings available from implementation of an NPA simply because the project it replaces is a safety project.[7]

As New York transitions away from the use of fossil fuels to heat buildings, new capital spending on traditional LDC infrastructure is at high risk of becoming stranded, either operationally, financially, or both. Traditional utility plants may need different financial treatment than they received in the past – whether that is applied now or in several years' time. If those end-of-life costs (e.g., accelerated or shortened depreciation, early salvage value,

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[6] *Order on Regulatory Principles and Framework*, p. 2. Massachusetts Department of Public Utilities, Docket No. 20-80. December 6, 2023.

[7] *Commission Decision Granting, In Part, And Denying, In Part, Application For Rehearing, Reargument, Or Reconsideration Of Commission Decision No. C24-0092*, p. 4-5. Colorado Public Utilities Commission, Docket No. 23M-0234G. April 15, 2024.

securitization) are not being accounted for today because of uncertainty, it is *especially* important that the prudence determination is made based on clear and justified decision-making.

Fully justifying the need and prudence of new, traditional LDC infrastructure requires a demonstration that lower-risk alternatives have been fully assessed. An NPA viability determination, specific to the set of available alternatives to a stated need, can come after the traditional project's suitability and screening criteria, and weigh factors such as the alternative solution's ability to serve the same customer need, the ability for a solution to be deployed on the necessary timeline, the cost of the alternative, or technical feasibility. Regardless of the final verdict on the NPA, the decision-making that an LDC underwent to determine whether to proceed with the traditional solution or the alternative should be available and clear to the Commission and to intervenors in any given rate case.

c. *How should NPA Suitability and Screening Criteria be a standard part of each LDC's gas system long-term plan, and thus be reviewed, updated, and approved as appropriate?*

The Commission should adopt a policy similar to that of Massachusetts, wherein the non-viability of NPAs is required to demonstrate prudence of any traditional capital project. Because NPAs may take several years to plan and execute, their inclusion *before* rate cases in an LDC's long-term plan is important to create the conditions for success. The earlier that a system need or traditional project is identified within a long-term plan, the greater the likelihood that an NPA, or portfolio of NPAs, can be designed to be viable from both a technical and a cost perspective.

28. Should an LDC's NPA solicitations involve proactive outreach to local municipalities and/or public interest groups about how NPAs in particular areas might be designed to help meet public policy objectives? Are there specific elements of outreach and communication, including specified timeframes, that should be standardized to effectuate the best outcome for ratepayers?

If an NPA solicitation is targeted within a specific community, the LDC should conduct outreach to local municipalities and other entities that may be able and willing to help. For example, several cities around the country offer heat pump incentives that can stack with utility, state, and federal programs. In coordination with a utility's NPA, these could potentially be used to make the NPA more cost-effective for utility customers *and* facilitate the city's own decarbonization

and clean energy goals. Municipalities in New York and their partners in decarbonizing buildings may likewise be interested in participating in the design of programs that are complementary to both the utility and the city's own interests, and useful in educating and enrolling residents and local businesses in programs.

29. How should an LDC communicate eligibility requirements, or restrictions, to potential NPA providers in NPA solicitations?

A standard Request for Information ("RFI") or RFP process could work well for sharing information like this to potential providers.

30. Should information about projects that meet NPA Suitability and Screening Criteria be made available in a common, publicly accessible repository as well as on the website of the LDC in whose service territory the NPA might be developed? What entity should maintain that common repository? How often should it be updated?

A publicly accessible repository – hosted on the website of an LDC or that of a state agency – would support transparency and the development of new, innovative solutions by peer utilities and other market participants. The repository may include information on completed and ongoing projects, as well as details on upcoming projects and anticipated RFIs and RFPs. With this approach, the repository could be updated whenever there is a status update with an existing project or when details on a potential new project become available.

31. If an LDC develops an NPA that enables complete avoidance (i.e., not just deferral) of replacement of a leak prone pipe (LPP) segment, should the LDC be allowed to recover costs up to the total cost of that LPP segment's replacement but no higher? If the LDC should instead be allowed to recover more than that amount, explain what the proper amount should be and why.

A major goal of NPAs is to reduce costs to ratepayers, but United recommends the Commission does not place limits on potential NPA solutions in these early stages. Allowing the LDC the same cost recovery of full replacement or the traditional utility investment may be contradictory to the goal of cost reduction when considered only in the context of utility rates, but as we learn more about NPAs, there may be situations where the financial investment of an NPA is higher than a traditional utility replacement, but the benefits, particularly when included societal costs and benefits in a benefit cost analysis, are higher. In this instance, ratepayers would be better off with the NPA, although the rate impact may be higher. If such an investment is approved by the

Commission, the utility should be able to receive full cost recovery. That being said, a higher cost should receive extra scrutiny while being considered on a case-by-case basis.

33. For the purpose of valuing an NPA, should the assumed amortization period for the non-NPA solution to which the NPA is compared be the shorter of the solution's engineering useful life or 2050, i.e., the year set by the CLCPA for the reduction of economywide emissions to net zero?

United supports this approach.

35. Should all current gas customers fund all NPA incentives to avoid new customer connections?

If a new customer in new construction is foregoing a gas connection, they will never become a gas utility customer and therefore will never pay a bill to the gas utility. They will have likely made this choice under the state's all-electric buildings policy, the revised gas line extension allowance policy, or a municipality's own policies and ordinances – not an LDC's NPA program. It will be hard to consider this specific circumstance a gas LDC NPA, especially unless and until rate bases for dual-fuel utilities are combined. Instead, these avoided gas customers will be only adding electric load. If an average residential customer adds electricity demand at non-peak hours (both at the system-level and on their local distribution systems), the electrification could put downward pressure on rates, further justifying any increased electric line extension allowance or electrification support.

An exception to this may be customers in existing buildings looking to convert to natural gas (not covered by the All-Electric Buildings Act), regardless of the current or a future line extension allowance policy. In these circumstances, upon request for service, an LDC might consider an electrification NPA to avoid building that connection. If New York Public Service Law is amended to allow full elimination of the gas 100-foot rule and the cost of the gas infrastructure and continued gas service is appropriately priced and allocated to the specific customer, this issue may become largely moot – customers may choose to forego gas service if all costs (initial and ongoing) to extend gas service in conflict with state policy and the public interest are allocated to the customer causing the cost.

For NPAs that affect existing gas customers, it is appropriate to allow all current gas customers to fund NPAs because those NPAs are intended to be pursued only if they are more cost-effective than the traditional capital projects. In this way, all gas customers benefit from NPAs that do not affect them directly because the addition to rate base should be smaller than if the LDC pursued the traditional project and added it to rate base per the status quo procedures.

> *36. Should there be a threshold below which a project which avoids extending gas service should not be designated as an NPA?*

At this time, we cannot think of a situation where a threshold would be necessary.

> *37. The Commission received very few comments in response to the JLDC's filing regarding the share of net benefits that should be provided to the LDC as an incentive and an appropriate cap on the amount of that incentive. Staff requests additional comments on the specifics and merits of the JLDC proposal including, but not limited to:*
>
> *a. Should the share of net benefits allocated to shareholders/ratepayers match the 30%/70% allocation established for non-wires alternatives?*

Without further information, United believes that a 30%/70% allocation between shareholders and ratepayers, to match non-wires alternatives incentives, makes sense. If it becomes clear that this shared savings mechanism is not properly motivating utilities or providing meaningful savings to ratepayers, the Commission may consider adjusting it.

> *40. Are there any infrastructure projects that should not be considered for NPA treatment? Please provide specific examples.*

Only emergency safety and leak related projects should be exempt from NPA consideration. All other gas system needs, identified with as much lead time as possible, should go through the initial NPA suitability screening. At that point, any LDC may choose to pursue the traditional capital project if it believes that it is fully justifiable in a rate case.

III. Conclusion

We appreciate the opportunity to submit these comments and look forward to participating further in this proceeding.