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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and Perform Long-Term Gas System Planning.	Rulemaking 20-01-007 (Filed January 16, 2020)

COMMENTS OF RMI ON STAFF GAS INFRASTRUCTURE DECOMMISSIONING PROPOSAL

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I. Introduction & Summary

Pursuant to the Commission's Rules of Practice and Procedure and the January 17, 2023, Administrative Law Judge's Ruling Granting Extension of Time to File Comments on Staff Proposal ('January 17, 2023 ALJ Ruling'), RMI respectfully submits these comments in Rulemaking 20-01-007.

RMI is an independent, non-partisan, non-profit organization whose mission is to transform the global energy system to secure a clean, prosperous, zero-carbon future for all. Our initiatives include researching the business models, policies, technologies, and financing mechanisms necessary to decarbonize the buildings and power sectors and advance an equitable clean energy transition.

The Staff Proposal on Gas Distribution Infrastructure Decommissioning Framework in Support of Climate Goals ('Staff Proposal') advances a critical discussion on how to map and prioritize segments of the gas system for decommissioning and targeted electrification. At the same time, to facilitate a managed and equitable transition in line with California's climate goals,

the Commission must implement a comprehensive and proactive approach to gas planning rather than the business-as-usual model of retroactively approving cost recovery for projects. In the near term it is essential to work out the details of a decommissioning framework, as implementation of this framework will require ramping time to compile data and fine-tune metrics. The Staff Proposal for strategic decommissioning thus forms one key piece of this comprehensive approach, but will eventually need to fit into a broader, forward-looking plan for California's energy systems to enable the Commission and stakeholders to make informed, least-regrets decisions as the state progresses along the energy transition.

As directed in the January 17, 2023 ALJ Ruling, our comments respond to the questions posed in the Staff Proposal in order; questions to which RMI did not respond have been omitted.

II. Responses to Questions Posed in the Staff Proposal

2) Is likelihood of failure (reflecting the probability of failure) or risk score (likelihood of failure times consequence of failure, thereby reflecting the probability and size of the potential harm) a better way to reflect pipeline risk when prioritizing among communities?

Pipeline risk warrants consideration as part of a prioritization framework for decommissioning because it represents a set of infrastructure investment decisions. At these decision points, the benefit of decommissioning an asset instead of repairing or replacing it is the permanent reduction in utility – and thus ratepayer – costs. However, regardless of the solution chosen, the safety risk associated with aging or leaky pipelines will be addressed; the choice is not between decommissioning an asset or leaving it leaking in place, but rather a choice between different methods of mitigating the risk posed by the asset. In this context, the use of pipeline risk

as a prioritization criterion should focus on identifying cases where decommissioning is likely to be an effective solution to pipeline risk. Particularly in early tranches, cases should be identified with enough buffer time that taking a novel approach is likely to succeed even with uncertainty about how long it will take to implement.

For more detail on considerations around using risk to prioritize among communities, see our response to Question 3 below.

3) Is there a level of risk at which it is not cost-effective or reasonable to replace distribution pipelines? If so, what is that level and by what method should it be assessed?

A key benefit of decommissioning is that it enables reductions in utility costs (both rate base and expense) as gas use declines. This benefit is only realized if the utility is able to avoid the infrastructure investment in question. The decommissioning framework must thus balance the timeline of infrastructure risk (i.e., how urgently a piece of infrastructure must be repaired or replaced) and that of decommissioning (i.e., how long it takes to transition the customers served by that piece of infrastructure off of the gas system). In a framework that determines which parts of the gas system are prioritized for decommissioning, risk serves as a proxy for the likelihood of near-term investment in a given pipeline segment. This measure is only valuable (i.e., only serves to reduce utility costs, thereby producing ratepayer savings) if the gas infrastructure can be decommissioned before its risk level requires the utility to invest in replacing it. Highly risky pieces of gas infrastructure that must be replaced on a short time scale (say, this year) are thus not good candidates for Tranche 1 decommissioning on the basis of risk.

Using risk and replacement timelines as criteria for Tranche 1 prioritization should be conditioned on the ability to decommission on the timeline of Tranche 1. Throughout the

tranches, prioritization must be tethered to actual outcomes, such that the magnitude of ratepayer cost savings from decommissioning a given pipeline only results in prioritizing that pipeline if it can realistically be decommissioned in time to achieve those ratepayer savings.

However, pipeline characteristics such as risk and safety are not the only criteria of import for prioritizing communities for decommissioning. There may be communities with high health and affordability burdens where the relevant gas infrastructure has a low pipeline risk, or where the risk requires near-term investment that cannot be timely avoided through decommissioning. The Commission should thus develop a system to weigh criteria cumulatively. Such a system should allow for assigning a low priority factor based on risk either if the pipeline must be repaired too soon to avoid the investment or if the pipeline is very low risk (for instance, if it has been recently repaired or replaced). Crucially, this system should also allow for communities with high community burdens to be moved into an earlier tranche even if they are served by low-risk gas infrastructure.

12) How should the incremental electric transmission or distribution infrastructure needs and costs associated with gas infrastructure decommissioning and associated electrification be considered?

The Commission should consider incremental electric infrastructure needs and costs associated with gas infrastructure decommissioning and electrification. It is likely that targeted electrification focused on enabling specific customers to discontinue gas use, in order to decommission a gas asset, will often drive more or sooner investment in electric distribution infrastructure than would otherwise occur absent the targeted electrification effort. In service of the overall goal of supporting a smooth transition and saving the most costly locations for last

(and by implication prioritizing the least costly locations first), the Commission should account for electric infrastructure costs in its framework.

The Commission should consider this cost as one variable among many inputs to prioritization decisions, rather than as a factor that is dispositive on its own. Decommissioning projects that require substantial incremental electric system investment but rank highly on other factors for prioritization – such as their location in highest-need, highest-benefit communities – may still warrant inclusion among the earlier tranches for decommissioning.

Practically speaking, the Commission will need to develop a standard metric – e.g., incremental electric infrastructure cost per customer – that is feasible to calculate system-wide using general methods of estimation. This cost may include transmission costs, distribution system costs, and customer-specific costs, to the extent practical. In all cases, the Commission's approach should focus on the incremental cost incurred by a targeted electrification and decommissioning project, above and beyond what could be expected to occur absent the targeted project. That is, some expectation of growth in load and/or peak demand must be baked into a business-as-usual scenario, whether from vehicle electrification or organic building electrification which would occur absent the targeted program. Conceptually, this should lead the Commission to evaluate segments of the electric system in three categories:

i. Segments with plenty of headroom in electric delivery capacity, where targeted electrification will not drive any significant infrastructure upgrade in the near or medium-term.
ii. Segments with very little headroom in electric delivery capacity, where business-as-usual load growth from electric vehicles (EVs) and organic building electrification will require a grid upgrade in the relatively near term, even absent the targeted electrification project.

iii. Segments with a medium amount of headroom, such that organic EV adoption and building electrification will not drive grid upgrades in the near or medium-term, but a large, targeted electrification project would directly spur such an upgrade.

For prioritization within this decommissioning framework, the Commission should give:

- highest priority to segments in the first category, where little or no system investment is needed, and in the second category, where the BAU investments are anticipated to be sufficient to cover targeted electrification needs;
- second priority to segments in the second category when the targeted electrification requires upsizing the necessary investment, but does not require a major new standalone electric capacity project;
- and third priority to segments in the third category, where targeted electrification could require major new standalone electric capacity projects.

This framework can be most practically applied for electric distribution system upgrades, leveraging existing utility mapping efforts such as the Integrated Capacity Analysis (ICA) maps and distribution system planning, with some additional adjustment and estimation. First, a baseline or business-as-usual pace of load growth (i.e., growth attributable to organic uptake of vehicle and building electrification technologies) should be estimated and mapped to the electric distribution system. This granular map of load growth may need to look further into the future than existing utility distribution planning processes, perhaps as far as ten years, in order to generate useful information for decommissioning planning. Next, mapped load growth should be compared to existing capacity (as on an ICA map) to sort segments of the distribution grid into the three categories outlined above. These maps and categorizations can then be aggregated up to the census-tract level to inform community prioritization among the tranches outlined in the Staff Proposal.

In developing such a calculation, Commission staff will need to rely on rules of thumb and estimation – e.g., assuming a greater increase in peak electric demand for customers located

in climate zones with colder winter temperatures. This approach is critical to assessing electric distribution system upgrade costs. The Commission should also consider whether it is sufficiently valuable and practical to attempt to allocate transmission-level costs down to the census tract level for the purposes of this decommissioning framework, given that such costs may be difficult to accurately estimate and attribute to such a granular geographic level. Likewise, without readily available building-level data on electrical capacity, it may be impractical to thoroughly evaluate customer-specific electric infrastructure costs in this framework. Absent more viable methods, it may be most practical to evaluate electric distribution costs using the conceptual framework presented here and use the result as a reasonable proxy for total electric infrastructure costs for the purpose of sorting census tracts into the five tranches.

13) Do the variables discussed appropriately account for the potential community benefits from reduced gas use? Are there other community characteristics that should be considered?

See our responses to Questions 14 and 15 below.

14) Should indoor air quality be a consideration in prioritizing among communities? If so, what data should be used to represent variations in indoor air quality among census tracts?

As suggested in the Staff Proposal, asthma rates and ground-level ozone warrant particular emphasis due to their links to gas combustion. Asthma may be particularly important to emphasize, as in California, 20.1% of childhood asthma is associated with gas stove use.[1]

[1] Talor Gruenwald, Brady A. Seals, Luke D. Knibbs, and H. Dean Hosgood III. 2023. "Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States" *International Journal of Environmental Research and Public Health* 20, no. 1: 75. https://doi.org/10.3390/ijerph20010075.

The annual combined health and climate costs of appliance pollution in California are at least $6.8 billion.[2] People of Color in California are exposed to 1.3 times as much fine particle (PM 2.5) pollution from residential gas appliances as Whites. Black People's exposure is 1.5 times as high as Whites'.[3] Given that Americans, on average, spend approximately 90% of their time[4] indoors, indoor air quality should be a consideration in prioritizing among communities. Populations that are often most vulnerable to the adverse impacts of air pollution (eg. children, the elderly, the chronically ill, people with cardiovascular or respiratory disease) tend to spend even more time indoors. The Commission should consider the growing body of literature on the adverse health effects[5] from combustion activities indoors[6] and commit to accounting for levels

[2] RMI analysis using EIA GHG emissions data, Interagency Working Group 2020 social cost of carbon values using a 3% discount rate, EPA's value of statistical life, and median pollution-related mortality estimates from the results of 3 reduced complexity models used in: Jonathan J. Buonocore (Harvard T.H. Chan School of Public Health) et al., A Decade of The U.S. Energy Mix Transitioning Away from Coal: Historical Reconstruction of the Reductions in the Public Health Burden of Energy, 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c, as well as additional analysis from Jonathan Buonocore, Sc.D., the study's lead author. U.S. Energy Information Administration, Environment, Sectoral Specific Emission Tables by State, https://www.eia.gov/environment/emissions/state/; Interagency Working Group on Social Cost of Greenhouse Gases, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990 (2021), https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf; EPA, Technical Support Document: Estimating the Benefit per Ton of Reducing Directly-Emitted PM2.5, PM2.5 Precursors and Ozone Precursors from 21 Sectors, at 19 (Table 6) (2022), https://www.epa.gov/system/files/documents/2021-10/source-apportionment-tsd-oct-2021_0.pdf. https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf; EPA, Technical Support Document: Estimating the Benefit per Ton of Reducing Directly-Emitted PM2.5, PM2.5 Precursors and Ozone Precursors from 21 Sectors, at 19 (Table 6) (2022), https://www.epa.gov/system/files/documents/2021-10/source-apportionment-tsd-oct-2021_0.pdf.

[3] Christopher W. Tessum et al., PM2.5 Polluters Disproportionately and Systemically Affect People of Color in the United States, 7 Sci. Adv. eabf4491, supplementary data file S2 (2021), https://advances.sciencemag.org/content/suppl/2021/04/26/7.18.eabf4491.DC1.

[4] "Indoor Air Quality," US EPA, https://www.epa.gov/report-environment/indoor-air-quality#note3.

[5] Gruenwald, et.al.

[6] Jonathan J. Buonocore (Harvard T.H. Chan School of Public Health) et al., A Decade of The U.S. Energy Mix Transitioning Away from Coal: Historical Reconstruction of the Reductions in the Public Health Burden of Energy, 2021 Environ. Res. Lett. 16 054030, https://doi.org/10.1088/1748-9326/abe74c.

of NO_2, ozone, CO_2, CO and $PM_{2.5}$ in decision making, and consider investing in opportunities to support continued research in this area.

15) Do the variables discussed above appropriately represent affordability? Are there other affordability metrics that should be considered?

Two current proceedings that bear on the question of affordability metrics are Rulemaking 18-07-006 ('Affordability Rulemaking') and Rulemaking 22-07-005 ('Rates Rulemaking'). To avoid duplicative processes, the Commission may wish to make use of the metrics and definitions under development in these two proceedings.[7]

An additional metric to consider in representing (un)affordability is utility debt, the direct outcome of a high energy burden, and utility disconnections due to non-payment. The California Arrearage Payment Program ('CAPP') required utilities to submit survey data on customers with utility debt.[8] While this data does not appear to be publicly available at census-tract-level granularity, but rather at the utility level, the Commission should consider requiring utilities to contribute more granular data on utility debt and disconnections as an input to the tranche prioritization process.

[7] For example, CEJA and Sierra Club's opening brief suggests that useful metrics to define a 'low-income ratepayer' should include "a ratepayer whose income is below 80 percent of the area median income ('AMI') or who qualifies for any applicable California or local income-based benefits program such as CARE/Family Electric Rate Assistance Program ('FERA') and CalFRESH, and/or federal income-based programs like the Special Supplemental Nutrition Program for Women, Infants, and Children ('WIC'), and Section 8 housing." Opening Brief of Sierra Club and the California Environmental Justice Alliance, R.22-07-005 (January 23, 2023), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M501/K533/501533647.PDF, at 10.

[8] CAPP categorizes residents into high, medium and low risk for prioritization, however, customers that were already disconnected are not considered priority customers under CAPP. 2021 California Arrearage Payment Program, California Department of Community Services & Development, https://www.csd.ca.gov/Pages/CAPP.aspx.

16) Should distribution pipeline decommissioning efforts focus primarily on residential customers? If so, why? If not, where should they focus?

See our response to Question 20 below.

17) How should non-residential, non-industrial gas demand be considered when prioritizing among communities?

See our response to Question 20 below.

18) How should GHG impacts be considered when comparing among communities?

While greenhouse gas ('GHG') emissions reductions are the ultimate goal of this and many other policy efforts[9] across California, the objective of this decommissioning framework should concentrate on minimizing costs to ratepayers and protecting vulnerable customers while making tangible progress in reducing the scale of California's gas delivery infrastructure, including by preferentially sequencing the transition of vulnerable customers earlier. Through this proposal, the Commission should focus on the parts of the California energy transition where it delivers the most value, by managing transition costs and protecting disadvantaged communities ('DACs') from bearing a disproportionate share of those costs.

Decommissioning is a novel, complex project and the priority for Tranche 1 in particular is thus to find ways to make decommissioning a practical and scalable solution that can be repeated in later tranches. The focus in Tranche 1 should thus be on projects with a higher probability of success in decommissioning gas assets and achieving long-term benefits. This will

[9] *See, e.g.*, California Air Resources Board Scoping Plan, www.arb.ca.gov/cc/scopingplan/scopingplan.htm; Renewables Portfolio Standard, www.energy.ca.gov/portfolio/; Low Carbon Fuel Standard, www.arb.ca.gov/fuels/lcfs/lcfs.htm; Cap-and-Trade Program, www.arb.ca.gov/cc/capandtrade/capandtrade.htm; and Greenhouse Gas Reduction Fund, www.caclimateinvestments.ca.gov/about-cci/.

entail optimizing for both practical and financial factors, such as: projects with fewer customers, projects with higher per-customer avoided infrastructure costs, and projects with community champions. High-need, high-benefit communities should be included in Tranche 1, but with priority given to those with community champions and reasonably positive 'probability of success' metrics.

For DACs and other higher-priority communities in any tranche, successful execution and scalability will rely heavily on community education and outreach. The San Joaquin Valley Electrification Pilots offer a crucial framework for engaging communities and avoiding expensive infrastructure costs while also helping meet state climate goals. While GHG impacts may be a useful secondary consideration in later tranches (perhaps especially so in Tranches 4 and 5), the focus in earlier tranches should be on projects that ensure the highest chance of success along the priorities outlined in the goals of the Staff Proposal – namely, maintaining safety and reliability while reducing ratepayer costs in line with gas demand and prioritizing community benefits in highest-benefit, highest-need communities.

19) Should the presence of community champions be an important consideration in prioritizing areas for decommissioning? Why or why not?

See our response to Question 20 below.

20) Please identify the key types (of those listed above, or others) of community champions and attributes for an effective community champion.

In addition to the categories of community champions identified in the staff proposal, local governments already advancing equitable electrification policies and hospitals and schools are good candidates for community champions.

Local governments with adopted building electrification plans and existing partnerships with community-based organizations ('CBOs') offer several advantages as community partners. First, these governments and their partners can hit the ground running in conducting outreach and education both at the outset of decommissioning efforts and to support their community on an ongoing basis. These local government-CBO partnerships can also aid in identifying suitable neighborhoods for decommissioning projects. Further, local governments already advancing electrification may be able to provide resources or funding support through existing local retrofit programs. Finally, this type of community champion may enable the Commission to prioritize partnering with localities that have (or implement in tandem) strong tenant protections to mitigate displacement risks.

Hospitals and schools, particularly colleges and universities, may make excellent community champions for other reasons. These institutions typically have large campuses, enabling decommissioning of significant amounts of gas infrastructure in one project scope.[10] They also often have centralized energy management staff and resources, streamlining the stakeholder process. Targeting these building types is also important because they are subject to State rather than local building codes and thus are not directly influenced by local building decarbonization plans. However, the Commission should consider that focusing on local government-CBO partnerships as Tranche 1 community champions would increase benefits to households, as compared to an early focus on hospitals and schools.

21) How should community champions be identified?

[10] *See, e.g.,* Amended Application of Pacific Gas and Electric Company for Approval of Zonal Electrification Pilot Project, A.22-08-003 (December 19 2022), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M500/K435/500435462.PDF.

There are multiple pathways the Commission could start with to identify existing community champions for early-tranche engagement. First, the Commission should look for candidates among the CBOs already partnering with the CPUC through programs such as the Energy Savings Assistance Program ('ESAP') and Solar on Multifamily Affordable Housing ('SOMAH').[11] The Commission should also leverage the Low Income Oversight Board ('LIOB') and Disadvantaged Communities Advisory Group ('DACAG'), bodies already engaged with the CPUC, to help identify potential community champions. Further, the Commission should build off of the lessons learned from the San Joaquin Valley Disadvantaged Communities Pilot Projects as the best existing model of Commission and utility engagement with CBOs and high-benefit communities.[12] Additional potential community champions could be sourced from the Building Decarbonization Coalition's list of local governments with building decarbonization policies[13] and the California Community Choice Association's membership, as community choice aggregators ('CCAs') tend to align with decarbonization goals and can serve as strong local partners.[14]

23) Should the presence of hard-to-electrify gas users and sources of biomethane on a pipeline lower its priority for decommissioning? Why or why not?

See our response to Question 26 below.

[11] "SOMAH's Community-Based Partners," SOMAH, https://calsomah.org/community-based-partners.
[12] Carmelita Miller, Stephanie Chen, Lisa Hu, and Isaac Sevier, "Equitable Building Electrification: A Framework for Powering Resilient Communities," The Greenlining Institute, https://greenlining.org/wp-content/uploads/2019/10/Greenlining_EquitableElectrification_Report_2019_WEB.pdf.
[13] "Zero Emission Building Ordinances," Building Decarbonization Coalition, https://buildingdecarb.org/zeb-ordinances.
[14] "Members – CalCCA," California Community Choice Association, https://cal-cca.org/about/members/.

26) How should the presence of industrial gas customers in a census tract affect whether the residential customers in that community have their gas pipelines repaired, replaced, or decommissioned, if at all?

Above all, the Commission should ensure that DACs located near 'hard-to-electrify' gas customers are not concentrated in tranche 5. While these projects may not be good candidates for Tranche 1 decommissioning, they must not be left for last. Residential customers near 'hard-to-electrify' gas customers are more likely to bear, at a minimum, disproportionate air pollution and health burdens, making these communities a higher priority for early-tranche decommissioning.[15] However, where a local industrial customer cannot be transitioned off the gas system in tandem with the transition of residential customers, the avoided infrastructure cost is likely to be smaller than for a project where all local gas infrastructure can be retired at once. In these instances, the Commission should proactively seek out and maximize non-ratepayer sources of funding to enable the realization of community benefits while managing costs to ratepayers. At a minimum, these communities should be prioritized for electrification programs that can improve indoor air quality and mitigate energy affordability issues.

27) How should the CPUC identify the set of pipelines and gas customers that should be expected to stay on the gas system using biomethane or other non-fossil fuels?

See our response to Question 26 above.

29) What adjustments should be made to these tranche definitions?

As noted in our response to Question 3, segments of gas infrastructure requiring near-term replacement should be excluded from Tranche 1 prioritization if their replacement timeline is shorter than the amount of time it will take to transition the relevant customers off gas. On the flip

[15] *See, e.g.,* "Power Plants and Neighboring Communities,"US EPA, https://www.epa.gov/airmarkets/power-plants-and-neighboring-communities.

side, projects where the customer transition and decommissioning timeline is very similar to the timeline for replacement should be high-priority candidates for Tranche 1 and may warrant special attention to ensure the decommissioning efforts ultimately succeed in avoiding the gas infrastructure investment. As noted in our response to Question 3 above, Tranche 1 should prioritize metrics most linked to a high probability of success in decommissioning, such as fewer customers per line, higher avoided cost, and the presence of community champions.

Additionally, because Tranche 1 will serve as a 'proof of concept' for decommissioning efforts, a holistic, community-based approach to neighborhood electrification is critical. This approach includes: substantial outreach and education[16], anti-displacement measures, and direct install whole-home retrofits and repairs for low-income households (addressing any code violations and health/habitability concerns alongside energy efficiency and electrification). Building community trust and buy-in to this process may take substantial time, particularly for the first projects. Rather than waiting until a given community's designated tranche has formally begun, the Commission should take steps to start these communication and trust-building processes as soon as possible, to lay the groundwork for successful decommissioning efforts further in the future. In this vein, the Commission should consider adopting and expanding on the Staff Proposal's concept of 'electrification zones' where higher subsidies and specialized electrification rates are provided, to include high-benefit, high-need communities regardless of tranche. Initial steps could include connecting with CBOs and community champions identified in parties' responses to Questions 20 and 21.

[16] Outreach and education efforts should include distinct processes for different customer types (e.g., residential or commercial) and a checklist of steps for each. Utilities should also communicate clear timelines for key steps such as panel or local infrastructure upgrades, equipment installation, etc.

30) How often and through what process should tranches be updated using recent data and analysis, given the potential to learn from past experience and new information, vs. the benefit of planning years in advance?

Ultimately, the tranche and decommissioning framework should be part of a comprehensive, long-term planning process to align near-term decisions with the long-term goals for the gas system in California. In the near term, the tranche definitions will need to be updated periodically, as projects that may have been in Tranche 2 or 3 in the initial assignment of tranches may need to be highly prioritized (or de-prioritized) due to changing factors including but not limited to pipeline risk and replacement timelines. Estimates for how long it takes to implement targeted electrification and decommissioning will also likely decrease over time and should be reflected in projects' prioritization accordingly.

31c) What ratemaking/cost structures changes are possible to incentivize gas utilities to decommission distribution pipelines?

The Commission should consider whether and under what conditions it may be appropriate to implement financial incentives for utilities to deploy non-infrastructure solutions that enable the decommissioning of gas infrastructure. One method the Commission could consider is allowing utilities to earn a return on non-pipeline alternative ('NPA') investments, consistent with the return they would earn on a traditional gas infrastructure capital investment. This approach would lower the disincentive utilities face in investing in non-infrastructure options relative to traditional infrastructure. The Commission could also consider enabling utilities to earn a return specifically on non-infrastructure investments that result in reductions to the gas rate base compared to the scenario in which the utility makes a traditional capital investment, which would more closely align utility incentives with supporting gas customers' interest in a downward pressure on rates.

36) How can electric and gas utilities best perform their respective roles to support cost-effective gas decommissioning?

The Commission should consider implementing integrated long-term planning that considers the gas and electric utility systems holistically. In the near term, utilities should follow the process outlined in our response to Question 12. Namely, the gas utility should provide the electric utility information on where the highest priority projects are within its service territory. The electric utility, perhaps through a formal proceeding or otherwise moderated by the Commission, should then lay out a path to perform the necessary grid upgrades in time for the NPA to be implemented.

37) How should the identification and selection of non-pipeline alternatives be coordinated with other programs or proceedings?

As noted in our response to Question 30, the Commission should implement an iterative long-term planning process to enable a managed transition of California's gas system. As in Colorado's gas infrastructure planning process, NPAs should be evaluated and implemented as part of a broader assessment of the system as a whole.[17] The planning process can thus take into account diverse inputs such as building decarbonization programs, local jurisdictional policies, and electric infrastructure (as noted in our response to Question 36).

39) How should non-pipeline alternatives be paid for, both for customers of dual-fuel and single-fuel gas utilities?

A primary goal of NPAs is to benefit gas ratepayers by mitigating rate increases caused by infrastructure investments recovered over a shrinking customer base. It is thus appropriate to

[17] Commission Decision Adopting Rules, Colorado Public Utilities Commission Decision No. C22-0760, Proceeding No. 21R-0449G, https://www.dora.state.co.us/pls/efi/EFI_Search_UI.Show_Decision?p_dec=29605&p_session_id=.

recover some of the costs for NPAs from gas customers, up to the amount of the avoided cost of the infrastructure investment. The Commission could consider specifying that the amount to be recovered from gas ratepayers should ensure that non-participating gas customers (that is, customers not directly participating in a given NPA project) do not experience a rate increase resulting from the NPA project. This approach would align with the broader goal of mitigating the general upward pressure on rates caused by declining throughput and customer base. Recovery of a portion of the costs of NPAs from electric customers should generally be tied to an understanding that the load growth attributable to NPAs exerts a downward pressure on rates for all electric customers.

To the extent that the total cost of the NPA exceeds the amount that can be appropriately be recovered from gas and electric ratepayers, the Commission should generally seek to close that gap with non-ratepayer sources of funding. However, particularly in Tranche 1, it may be appropriate to recover the full costs of some NPAs from gas ratepayers, as these early efforts have the added value of serving as proof-of-concept projects and generating significant learnings and momentum for the long term benefit of gas ratepayers.

40) Should non-pipeline alternatives to be pursued in coordination with decommissioning be identified by the CPUC, by gas utilities, a third party, or a hybrid approach?

In the current stages of drafting a decommissioning framework, when identification and implementation of NPAs to date has been largely utility-led and relatively small-scale, it may be too early for the Commission to determine a clear answer to this question. The Commission should use the proof-of-concept projects in Tranche 1 to test out different models of NPA identification, including solutions identified by and with community champions.

Fully resolving this question also likely requires addressing issues currently outside the scope of this proceeding. Specifically, the gas utilities' obligation to serve customers, as currently understood, presents a barrier to at-scale decommissioning of gas assets. We may anticipate that new legislative policy will address this barrier, and that the Commission will then need to define the parameters of adequate substitution of service, such that if utilities are authorized to discontinue gas service to a targeted set of customers, there are clear guidelines protecting customers' access to essential energy services. The Commission need not wait for legislative action to begin working with stakeholders to identify these guidelines and potential definitions of an adequate substitution of service. This process may provide greater clarity on how NPAs should be identified in future tranches of the decommissioning framework.

42) Should criteria for prioritizing communities for decommissioning (defining tranches) be adjusted in light of the characteristics of non-pipeline alternatives? For example, should areas with colder weather be prioritized or de-prioritized for pipeline decommissioning given the capabilities of heat pumps or geothermal technology?

Areas with different climates may be best served by different sets of NPAs, based on the relative operating costs of various options. In this example, colder-weather communities may be better served by cold-climate air source heat pumps, ground source heat pumps, or networked geothermal district heating. These solutions will also vary in their up-front installation costs, so the available funds per customer may not stretch as far as for a comparably-sized project in a warmer climate, assuming a fixed amount of funding based on what may be appropriately recovered from gas and electric ratepayers. However, as noted in our response to Question 39, this consideration may be less relevant for high-priority projects in Tranches 1 and 2.

III. Conclusion

The Staff Proposal significantly advances a key piece of the framework needed to enable a managed and equitable transition of California's energy systems. The details of how to identify and prioritize decommissioning projects in order to maximize long-term benefits are both complex and critical to the success of this effort. However, the Commission should recognize that a comprehensive and forward-looking gas planning framework will ultimately be needed both to guide the implementation of this proposal and to address the parts of the energy transition not covered by the decommissioning framework.

Respectfully submitted,

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