BEFORE THE
MARYLAND PUBLIC SERVICE COMMISSION

PETITION OF THE OFFICE OF PEOPLE'S COUNSEL FOR NEAR-TERM PRIORITY ACTIONS AND COMPREHENSIVE, LONG-TERM PLANNING FOR MARYLAND'S GAS COMPANIES	* * *	CASE NO. 9707 (Phase II)

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REBUTTAL TESTIMONY

OF

ALICE NAPOLEON

ON BEHALF OF THE OFFICE OF PEOPLE'S COUNSEL

July 13, 2026

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I. Introduction

Q. Please state your name and business address.

A. My name is Alice Napoleon. I am a Senior Principal at Synapse Energy Economics, Inc. ("Synapse Energy Economics") located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

Q. Have you previously testified in Case No. 9707?

A. Yes. I provided initial and reply testimony in this case on May 4, 2026.

Q. On whose behalf are you appearing?

A. I am presenting testimony on behalf of the Maryland Office of People's Counsel.

Q. Have you prepared exhibits to accompany your testimony?

A. Yes. I have prepared the following exhibits:

- Exhibit AN-R1: EXHIBIT AN-R1 – Staff responses to OPC DR 1-2, 1-3, 1-4; Washington Gas Light Company responses to OPC DR 4-52 and 4-53
- Exhibit AN-R2: U.S. Census Bureau, American Community Survey Data
- Exhibit AN-R3: Environmental Protection Agency Facility Level GHG Emissions Data for Washington Gas Light Company

- Exhibit AN-R4: Progressive Pipe Management, Cured-in-place Lining (CIPL) for the life extension and renewal of natural gas pipelines – Comprehensive FAQ
- Exhibit AN-R5: Comments of the Office of People's Counsel's in Case No. 9707, ML# 318634 (May 6, 2025)
- Exhibit AN-R6: Comments of the Office of People's Counsel in Case Nos. 9618, 9645, ML# 312359 (Sept. 16, 2024)

Q. What is the purpose of your rebuttal testimony?

A. The purpose of this rebuttal testimony is to respond to the direct testimony of the Office of Staff Counsel ("Staff"), Maryland Department of the Environment ("MDE"), Maryland Energy Administration ("MEA"), Chesapeake Community Action Network ("CCAN"), and the Sierra Club filed on May 4, 2026 in Case No. 9707. My rebuttal testimony addresses topics related to issue numbers 2, 3, 4, 6, 8, 9, and 11 in Order 91791. This testimony does not respond to intervenor arguments exhaustively; my silence on any particular argument should not be construed to mean I agree with that argument nor should any other conclusion be drawn from that silence.

Q. Please describe the organization of this rebuttal testimony.

A. In the next section (Section II), I explain why I disagree with the positions of Staff witnesses David Valcarenghi, Evan Thomas, and John Clementson that

continued use of a business-as-usual approach to gas planning is appropriate, and I provide an overview of why changes to gas planning practices are needed.

In Section III, I critique Mr. Clementson's and Mr. Valcarenghi's testimonies regarding consideration of alternatives, note inconsistencies between their positions and those of Staff witness Anson Justi, and note that MDE, MEA, CCAN, and Sierra Club all support improved consideration of alternatives.

In Section IV, I rebut Mr. Valcarenghi's argument that gas expansion should not be constrained. In doing so I also summarize my findings and the findings of other parties, including CCAN and MEA, regarding stranded cost risk.

In Section V, I critique the proposals of Mr. Justi, Mr. Clementson, and Staff witness Kamren Walton regarding transparency and reporting. Finally, in Section VI, I summarize relevant conclusions and recommendations.

II. Changes To Current Gas Planning Practices are Needed.

Q. How do Staff witnesses describe gas consumption trends?

A. The views of Mr. Valcarenghi, Mr. Thomas, and Mr. Clementson regarding gas consumption trends are consistent with the gas companies' argument that there is no evidence to suggest declining throughput and that customers

continue to connect to the system. Mr. Valcarenghi states, "I have not seen any evidence that throughput is declining or that customers have stopped requesting natural gas service that will decline in future periods."[1] Similarly, Mr. Thomas claims that the weather-normalized throughput and customer count data that he reviewed do not show material changes.[2] Mr. Clementson states that "The numbers clearly show that there is continued interest from Maryland residents in utilizing natural gas for home heating and other applications."[3] Generally, these points appear to serve as support for their conclusion that no substantial change to gas planning practices are needed.[4]

Q. Do you agree with the claims of Mr. Valcarenghi, Mr. Thomas, and Mr. Clementson that there is a lack of evidence of declining throughput?

A. No. Mr. Valcarenghi notes that "certain other parties discuss potential for a decline in natural gas consumption" but did not identify to what discussion he was referring and provided no evidence or analysis to support his claim

[1] Direct Testimony of Staff Witness Valcarenghi at 7:1-3.
[2] Direct Testimony of Staff Witness Evan Thomas at 11:18-19.
[3] Direct Testimony of Staff Witness John J. Clementson at 4:21-23.
[4] Regarding policies to govern expansion in terms of capital investment, Mr. Valcarenghi states, "I do not believe such a mandate or policy is warranted." (Staff Witness Valcarenghi Direct Testimony at 3:18-4:1.) Mr. Clementson indicates that he would not suggest implementing any new policies, guidelines or regulations related to whether natural gas company facilities are repaired or replaced at this time, given that the Next Generation Energy Act is recent. (Staff Witness Clementson Direct Testimony at 14:7-12). Mr. Thomas indicates that "immediate changes to gas rate design are not necessary in this proceeding because there have not been material changes in demand sufficient to warrant such changes." (Staff Witness Thomas Direct Testimony at 3:16-18).

that current or potential future declines in throughput are unsupported.[5] In his rebuttal testimony, my colleague Kenji Takahashi addresses Mr. Thomas's conclusion that weather-normalized throughput and customer count data he reviewed do not show material changes; Mr. Takahashi finds, among other things, that Mr. Thomas's analysis addresses only a narrow question and should not be used to discount the need for improved gas demand forecasting and long-term gas planning.[6]

Q. Do you agree with Mr. Thomas and Mr. Clementson's claims regarding customer counts?

A. I disagree with Mr. Thomas, and Mr. Clementson's claims, and, even if true, their claim that customer counts are not declining does not change any of my recommendations. My colleague, Mr. Takahashi, argues in his rebuttal that Mr. Thomas's conclusions regarding customer counts should not be applied broadly to gas planning. I have not assessed Mr. Clementson's claim that customer counts continue to increase. However, I note that sustained or even increasing customer counts do not mean that the current gas business model can be sustained indefinitely, nor do they support a conclusion that no substantial change to gas planning practices are needed. Even absent emission reduction targets and other State climate policies, changes to current gas planning practices are needed to address market-driven,

[5] Staff Witness Valcarenghi Direct Testimony at 7:1-3.
[6] Rebuttal Testimony of OPC Witness Kenji Takahashi at 35:1–49:16.

declining consumption trends. Growth in customer counts may not be sufficient to avert the economic impact on customers if sales decline—or even if sales were to increase slightly, if increasing investments (which may become stranded costs)[7] outpace minor sales increases.

Q. Why is consumption important to consider in gas planning?

A. Consumption and costs are primary drivers of rates. Holding other factors including costs constant, higher consumption results in lower rates, while lower consumption results in higher rates (on a simplified basis of dollars per unit of gas). In the past, gas companies could increase costs while maintaining stable rates, in part because sales were growing. For reasons discussed in OPC witness Takahashi's initial and reply testimony, however, gas companies can no longer count on growing sales to balance out increases in costs and maintain stable rates, because market trends indicate that residential gas consumption is declining and will continue to decline.[8] As discussed in the initial and reply testimony of Mr. Takahashi, from 2015

[7] The extent of stranded costs that customers remaining on the gas system will face turns in part on whether the Public Service Commission pushes forward with implementing regulations regarding subsidies for extending gas lines to new locations. The Commission has yet to take action on Staff's proposed regulations to end these subsidies for new line extensions. *See* Pub. Serv. Comm'n, Order No. 91683, Order on Stakeholder Proposals for Revision of Gas Policy (Case No. 9707, June 13, 2025) at 9-11, 16 (directing Staff to propose regulations ending gas-line extension subsidies); Proposed Minutes from May 8, 2026 Rulemaking Session 215 (RM 92, May 20, 2026) (noting that the Commission took no action on the proposed regulations at the May 8, 2026 rulemaking session). As the Commission itself noted in Order No. 91683, "new natural gas customers should pay the full cost of extending service to them, thus minimizing any future potential for stranded costs with respect to new extensions. . . ." Order No. 91683 at 3.

[8] Initial and Reply Testimony of Kenji Takahashi at 24:13-14, and 8:5-10.

to 2024, the share of households in Maryland with electricity as their primary heating source grew by 1.1 percent annually, while the share of households with gas as their primary heating source declined 0.4 percent per year.[9] In 2021, the share of total Maryland households with electricity as their primary heating source surpassed the share of households with gas for the first time.[10]

Gas companies have relatively little direct influence over customer consumption, except in some limited circumstances (e.g., via interruptible tariffs, demand response, and energy efficiency programs). In contrast, gas companies do have substantial control over costs. To promote reasonable and stable rates in a future with falling sales, gas companies must double down on their efforts to reduce costs. This will require fundamental changes to current gas planning practices that reconsider risk-spend tradeoffs across a wider range of solutions.

Q. Would growth in customer counts be sufficient to avert the negative economic impact on customers?

A. No. The addition of customers may not avoid the risk of escalating rates if consumption per customer is declining—as it is for the residential sector.[11]

[9] Initial and Reply Testimony of OPC Witness Kenji Takahashi at 27:9-28:6, citing U.S. Census Bureau, American Community Survey, *available at*: https://data.census.gov/table/ACSDP1Y2024.DP04?g=040XX00US24 (attached as Exhibit AN-R2).
[10] OPC Witness Takahashi Initial and Reply Testimony at 28:6-10.
[11] OPC Witness Takahashi Initial and Reply Testimony at 24:13-14.

Trends also show declining trends in residential use per customer for Baltimore Gas and Electric Company ("BGE"), Washington Gas Light Company ("WGL"), and Columbia Gas of Maryland ("Columbia").[12]

III. Consideration of Alternatives is a Crucial First Step to Reducing Costs.

Q. Describe Mr. Clementson, Mr. Valcarenghi, and Mr. Justi's positions on the consideration of alternatives to traditional infrastructure investments.

A. Staff witnesses present varying and mutually inconsistent opinions regarding consideration of alternatives to investment in traditional gas system infrastructure. Mr. Clementson largely supports a business-as-usual approach to pipe replacement and does not believe new guidelines, policies, or regulations are necessary for determining whether to repair or replace infrastructure.[13] Mr. Clementson asserts that changes to the Next Generation Energy Act ("NGEA") will not have major implications for the way utilities go about STRIDE[14] programs or other capital investments.[15] Further, Mr. Valcarenghi claims that pipe replacement is "the single biggest step" for reducing emissions.[16]

[12] OPC Witness Takahashi Initial and Reply Testimony at 24:13-25:6.
[13] Staff Witness Clementson Direct Testimony at 3:15-18.
[14] "STRIDE", or Strategic Infrastructure Development and Enhancement, refers to the Maryland law permitting gas utilities to obtain accelerated cost recovery for certain aging gas infrastructure. See Md. Pub. Util. § 4-210.
[15] Staff Witness Clementson states "I do not find that NPAs [non-pipeline alternatives] will directly affect long-term gas planning in a meaningful way; they will just require the natural gas companies to implement an additional step when in the process of developing their long-term plans." (Staff Witness Clementon Direct Testimony at 12:5-8).
[16] Staff Witness Valcarenghi Direct Testimony at 7:10-11.

In contrast, Mr. Justi suggests that demand response is a viable solution to avoid infrastructure investments in areas of high peak demand.[17] Further, he posits that disconnecting from the gas system in favor of other technologies will be a viable solution to reduce emissions and avoid infrastructure investments in areas with low throughput.[18] (Mr. Justi discusses this use of non-pipeline alternatives ("NPAs") in the context of decarbonization; however, his recommendation has implications for the consideration of alternatives).

A. Messrs. Justi, Valcarenghi, and Clementson provide inconsistent testimony on the value of non-pipeline alternatives.

Q. Does Mr. Clementson consider the costs associated with pursuing a business-as-usual approach to pipe replacement?

A. Not fully. Mr. Clementson acknowledges that the NGEA requires gas companies to consider cost-effective options available to defer, reduce, or eliminate the need to replace, upgrade, or construct new components.[19] Mr. Clementson does not, however, consider the range of NPAs[20] that should be

[17] Staff Witness Justi Direct Testimony at 19:12-13
[18] Staff Witness Justi Direct Testimony at 19:18-21.
[19] Staff Witness Clementson Direct Testimony at 12:19-21.
[20] Section 4-214 of the Public Utilities Article ("PUA"), added by the NGEA, focuses on alternatives to "new components" and defines "nonpipeline alternative" as an alternative "that defers, reduces, or eliminates the need to construct a new gas pipeline[,]" while section 4-210 focuses on "alternatives to replacement" of existing infrastructure. Common to both of these definitions is the concept of options to defer, reduce, or eliminate the need for capital investment. In this testimony I refer to NPAs as options to defer, reduce, or eliminate the need for capital investment; these include but are not limited to energy efficiency, demand response, electrification, pipe lining, and pipe repair, although I note that it may be possible for the gas companies to capitalize pipe lining costs.

explored by gas/electric utilities, nor does he consider enhanced coordination between separate gas and electric utilities, and the benefits those could confer. He states that only "leak detection and repair, gas demand response plans, lining of the pipe and abandonment" are in the hands of gas companies.[21] Limiting NPAs to this narrow set of options may have limited impacts on near- and long-term cost and affordability because the utilities will likely continue to invest in pipe replacement if their options are so constrained. Confining NPAs to this limited set overlooks the fact that alternatives such as full electrification of connecting customers and pipe retirement can in many cases be lower cost than replacement, and that the avoided costs will benefit customers and reduce the risk of stranded assets in the long-term. This apparent oversight is problematic: in a future with significantly reduced consumption, gas companies must minimize spending wherever possible while still meeting their obligation to provide safe and reliable service and abide by State climate policies.

Q. Why it is important for utilities to consider alternatives to pipeline replacement and other infrastructure investments?

A. Non-pipeline alternatives (such as targeted energy efficiency, demand response, electrification, pipe lining, joint sealing, and other repairs) may perform better with respect to important criteria (cost, stranded cost risk,

[21] Staff Witness Clementson Direct Testimony at 12: 9-13.

optionality,[22] and emission reductions). However, gas utilities currently are not sufficiently considering these alternatives, even though they are required to make prudent investment decisions that are in the public interest. If a utility does not consider a wide range of known, available solutions, it is impossible for the Commission or others to verify whether the utility is in fact pursuing the most prudent or least-cost option. Thus, Mr. Clementson's assertion that gas companies can continue to take a largely business-as-usual approach overlooks important considerations about prudency and ratepayer affordability.

Q. Does Mr. Clementson believe that the Next Generation Energy Act's changes to the STRIDE statute will affect gas companies' planning practices?

A. Mr. Clementson states that the STRIDE statute changes "should not have an impact on long-term replacement planning except that the natural gas company will now be required to conduct the required analysis [of] non-pipeline alternatives (NPAs) versus the replacement, upgrade or new construction of a pipeline or component for determining the best remedial action to address the situation."[23]

[22] As described in my initial and reply testimony, optionality involves deferring decisions that can reasonably be deferred until later to increase flexibility and to allow more insight into uncertain futures. It represents the potential value of preserving future flexibility to adjust, defer, or abandon an investment decision, rather than committing irrevocably to a course of action under conditions of uncertainty. Initial and Reply Testimony of OPC Witness Alice Napoleon at 23:1-8.
[23] Staff Witness Clementson Direct Testimony at 3:9-13.

At the same time, Mr. Clementson does not suggest implementing "new guidelines, policies and/or regulations for determining repair versus replacement." He says the NGEA's passage "is still recent and will require time to determine if the desired effect of the Act can be accomplished as anticipated. If it is determined at a later date that the Act is not properly addressing the intended outcomes, the Commission could then institute proceedings to address those issues."[24]

Q. Do you agree with Mr. Clementson's recommendation not to implement any new guidelines, policies, or regulations governing utilities' decisions to replace infrastructure?

A. No. By failing to consider how NPAs that could be implemented by combined gas/electric utilities or by enhanced coordination between separate gas and electric utilities, Mr. Clementson forecloses discussion of the ways in which planning can provide better outcomes for customers in terms of affordability, optionality, and stranded asset risk, while providing equivalent or improved safety relative to replacement. Further, his passive stance suggests that the Commission has a passive role with respect to consideration of alternatives, even though the legislature directed the Commission and utilities to take action when it passed the NGEA. A "wait and see" approach may lead to inaction, which means the NGEA will not accomplish what the legislature intended it to accomplish.

[24] Staff Witness Clementson Direct Testimony at 3:18-22.

Q. Do you have any comments on Mr. Justi's recommendations regarding NPAs?

A. Yes. Mr. Justi recommends that gas companies consider demand response for areas of the system with high peak capacity and identifies the opportunity to downsize areas of the system with low annual throughput.[25] I agree with this recommendation, but I wish to emphasize that the gas companies should start doing so as soon as possible.[26]

Additionally, like Mr. Clementson, Mr. Justi only envisions limited applications of alternatives.[27] As discussed in my initial and reply testimony, gas companies should consider NPAs for a broad range of infrastructure investments.[28] Beyond NPAs to relieve capacity constraints, the gas companies should consider, and be required to demonstrate consideration of, NPAs for at least the following: all instances requiring pipe replacement except for Grade 1 leaks, and for older terminal segments and segments with redundancy.

[25] Staff Witness Justi Direct Testimony at 19:10-21.
[26] Mr. Justi proposes demand response and system downsizing but is unclear regarding the timing of these actions; he contemplates that they would potentially be part of a "long-term decarbonization plan," implying that gas companies do not need to employ these strategies until further into the future. (Staff Witness Justi Direct Testimony at 19:3-20:4).
[27] Specifically, Mr. Justi mentions demand response as a viable solution to reduce emissions and avoid infrastructure investments in areas of high peak demand (effectively serving as an NPA for a capacity constraint), and that disconnecting from the gas system in favor of other technologies may be a viable solution to reduce emissions and avoid infrastructure investments in areas with low throughput (Staff Witness Justi Direct Testimony at 19:18-20).
[28] OPC Witness Napoleon Initial and Reply Testimony at 31:4-34:24

Q. Is Mr. Justi's recommendation to consider NPAs consistent with the position of Mr. Valcarenghi to pursue business-as-usual approaches to pipe replacement and gas system expansion?

A. No. Messrs. Justi and Valcarenghi present divergent strategies for considering NPAs. Mr. Justi recommends implementing NPAs in certain areas of the system, including demand response and downsizing. This is inconsistent with Mr. Valcarenghi's position favoring continued expansion the gas system.[29] Continuing to invest in long-lived assets in the near term, as Valcarenghi suggests, just to potentially abandon the same assets a few years down the road through NPAs, as Mr. Justi suggests, would be wasteful and would lead to a more expensive outcome than necessary.

B. Mr. Valcarenghi errs when he claims that replacing pipes is "the single biggest step" to reduce emissions.

Q. What does Mr Valcarenghi claim regarding the importance of pipe replacement for emissions reduction?

A. Mr. Valcarenghi states that continuing to "remove/rehabilitate aged and leak-prone pipes" is "the single biggest step" a gas utility can take for reducing emissions.[30]

[29] Staff Witness Valcaranghi Direct Testimony at 7:4-8.
[30] Staff Witness Valcarenghi Direct Testimony at 7:10-13.

Q. Did he provide support for this claim?

A. No. When asked about his statement in discovery, he stated, "No analysis was conducted. In Staff's view, the single largest source of emissions for a gas utility stem from leaks on the system."[31]

Q. Do you agree with Mr. Valcarenghi's assertion that the single largest source of emissions for a gas utility stem from leaks on the system?

A. No, I do not. Methane leaks from the distribution of gas, as Mr. Valcarenghi is referring to, are reported by the utilities to the Environmental Protection Agency. For example, WGL's emissions from distribution mains, services, and regulating stations amounted to 50,838 metric tons of CO_2-equivalent emissions ($mtCO_2e$) in 2023 for its Maryland territory.[32] In contrast, assuming that all of WGL's delivered gas was combusted and turned into carbon dioxide at the point of end use, the associated emissions that year would be 4,374,355 $mtCO_2$.[33] On a CO_2 equivalent basis, the emissions associated leakage is just one percent of the emissions associated with the combusted fuel.[34]

[31] Staff response to OPC DR 1-2.
[32] U.S. Environmental Protection Agency. Greenhouse Gas Reporting Program (GHGRP), Facility Level Information on Greenhouse Gases Tool (FLIGHT): Facility Information for Washington Gas Light Company (MD), data year 2023. Available at https://ghgdata.epa.gov/flight/details/1007849/2023/E. Accessed July 10, 2026 (Attached as Exhibit AN-R3).
[33] *Id.*
[34] *Id.*

Q. Does Mr. Valcarenghi's claim regarding the importance of methane leaks from gas distribution conflict with the analysis of his colleague, Mr. Justi?

A. Yes. Based on his emissions analysis, Mr. Justi concludes that Maryland likely will not be able to achieve its climate goals if it maintains natural gas use at current levels.[35] According to his analysis, even if Maryland halved the emissions in its buildings and fossil fuel use sectors by 2031, the State would still fall well-short of the 60 percent emission reduction target in that year.[36] Given that emissions from pipes are only a very small share of emissions associated with gas system leaks plus gas delivered to customers, as described above, the most that greenhouse gas ("GHG") emissions could be reduced by pipe replacement is 1 (one) percent, assuming that pipe replacement is fully effective at stopping leaks.

Q. Do you agree with Mr. Valcarenghi's claim that pipe replacement is the "single biggest step" to reducing emissions?

A. No, I do not. This recommendation ignores important considerations about the cost of pipe replacement as a decarbonization strategy. From the perspective of cost of emissions reduced, pipe replacement is likely one of the most expensive methods of reducing emissions. Employing pipe replacement as the foremost decarbonization strategy, as Mr. Valcarenghi suggests, will lead to much higher costs than strategies such as pipe lining.

[35] Staff Witness Justi Direct Testimony at 8:1-2.
[36] Staff Witness Justi Direct Testimony at 12:4-7.

As an illustrative example, WGL's replacement of mains in 2023 cost about $453 per foot.[37] In comparison, pipe lining offers comparable emissions reductions for much lower costs. One pipe lining company, Progressive Pipe Management, estimates the cost of pipe lining to range from about $276 to $398 per foot for 4" to 12" pipes—about 39 to 12 percent less than WGL's cost of pipe replacement in 2023.[38] Pipe replacement would also result in far fewer reductions in emission relative to other strategies such as targeted electrification with pipe decommissioning. Additionally, as noted above, leaks represent a small fraction of total gas company emissions; there is greater emission reduction potential by pursuing emissions reductions from customer end-uses.

Q. Do MEA, MDE, CCAN, and Sierra Club support greater consideration and use of NPAs?

A. Yes. MEA, MDE, CCAN, and Sierra Club all support greater utilization of NPAs or other infrastructure investments. MEA witness Joyce Lombardi[39] and Sierra Club witness Jim Grevatt[40] both recommend that the Commission require gas companies to analyze the cost-effectiveness of repair solutions relative to replacement. Similarly, CCAN witness Bradley Cebulko supports

[37] WGL response to OPC DR 4-52 (cost of pipe replacement); WGL response to OPC DR 4-53 (distance of pipe replaced).
[38] Progressive Pipe Management, Cured-in-place Lining (CIPL) for the life extension and renewal of natural gas pipelines – Comprehensive FAQ. Attached as Exhibit AN-R4.
[39] Direct Testimony of MEA Witness Joyce Lombardi at 13.
[40] Direct Testimony of Sierra Club Witness Jim Grevatt at 44:12-14.

a reform of gas companies' project planning processes and states that "a least-cost, least-risk planning framework requires that non-replacement and non-pipeline alternatives compete on equal footing with traditional infrastructure investment."[41] MEA, Sierra Club, CCAN, and MDE all support greater prioritization of NPAs. Consistent with OPC witness Takahashi's testimony,[42] MDE notes that the Building Energy Performance Standards ("BEPS"), Clean Heat Standard ("CHS"), and Zero Emission Heating Equipment Standard ("ZEHES") are expected to advance NPA implementation as a decarbonization strategy.[43]

Q. What does MDE recommend regarding NPAs?

A. MDE maintains that strategic, managed pruning of the gas system is needed to accommodate reduced throughput and achieve long-term ratepayer savings,[44] and that NPAs should be the primary pathway for reducing GHG emissions.[45] Further, MDE argues that gas companies should avoid installing or incentivizing more efficient gas appliances since they entrench long-term emissions that are inconsistent with GHG reduction goals.[46]

[41] Direct Testimony of CCAN Witness Bradley Cebulko at 66:2-4.
[42] Initial and Reply Testimony of OPC Witness Kenji Takahashi, Section II.C.
[43] Direct Testimony of MDE Witness Chris Hoagland at 23.
[44] MDE Witness Hoagland Direct Testimony at 26.
[45] MDE Witness Hoagland Direct Testimony at 25.
[46] MDE Witness Hoagland Direct Testimony at 24.

Q. Do you agree with MDE's suggested decarbonization approach?

A. I find MDE's position to align closely with my initial and reply testimony and that of OPC witness Sol deLeon. I agree that managed pruning of the gas system is the best way to reduce system costs and reduce emissions. As discussed by Dr. deLeon in her initial and reply testimony, alternative fuels may have a limited use for hard-to-decarbonize customers. However, alternative fuels and other decarbonization strategies that rely on the continued use and upkeep of the distribution system under current planning practices (i.e. replacement) raise serious concerns about affordability and the risk of stranded assets.

Q. Are the conclusions of MDE, MEA, CCAN, and Sierra Club similar to yours regarding consideration of alternatives?

A. Yes. The positions articulated by MDE, MEA, CCAN, and Sierra Club regarding the need for gas companies to expand their consideration of and more rigorously analyze opportunities for NPAs are consistent with the arguments in my initial and reply testimony.

C. Gas utility planning should identify and incorporate least-cost options.

Q. Do other parties articulate how gas utility planning should identify and incorporate least-cost options?

A. Yes. MEA states that gas companies should be required to detail risk ranking[47] methodologies (including how they choose factors, convert non-numerical data to numerical data, and assign numerical values to risk factors) and to provide detailed benefit-cost analysis ("BCA") using a defined decision framework.[48] Likewise, CCAN states that formal planning is needed to get least-risk outcomes.[49] CCAN states that the sole exception to considering alternatives should be for Grade 1 emergency leaks, and that the utility should be required to document why any projects were excluded from NPA review.[50]

Q. How do you recommend gas companies identify the least cost option for reducing risk on the system?

A. As discussed in Section IV.B. of my initial and reply testimony, gas planning frameworks should include risk prioritization based on the risk-

[47] Ms. Lombardi cites the NGEA requirement that the gas companies demonstrate that they have "selected and given priority to projects based on risk to the public and cost-effectiveness." (MEA Witness Lombardi Direct Testimony at 12-13.)
[48] MEA Witness Lombardi Direct Testimony at 12.
[49] Mr. Cebulko does not articulate which risks should be considered, however I infer that he includes safety risk at a minimum. See 71:1-3.
[50] CCAN Witness Cebulko Direct Testimony at 69: 16-20.

spend efficiency ("RSE") of each potential solution. This is similar to the positions MEA and CCAN put forth in their testimony.

Q. In your initial and reply testimony, you described RSE. Would you like to elaborate on that description?

A. Yes. My prior testimony described RSE as a metric that reflects the amount of risk (generally including safety, reliability, and other types of risk) reduced for every dollar spent on a risk-reducing project, such as pipe replacement. I defined RSE as risk reduction divided by cost. Providing more precision and elaborating on my previous description of the RSE:

RSE = Risk Reduction / Cost

Where: Risk reduction = Risk × Mitigation Effectiveness,

Risk, expressed in dollar per year terms, equals the dollar value of the potential consequence of an unabated risk, multiplied by the percentage likelihood of that consequence coming to pass per year, and

Mitigation Effectiveness represents the percentage reduction conferred by a specific mitigation measure. Mitigation may occur due to reduced likelihood, reduced consequence, or both.

Q. What is the difference between RSE and benefit cost analysis?

A. RSE is a form of benefit cost analysis in that it divides benefits by costs. However, it is very narrow: it only considers a single benefit, i.e. risk reduction. Some alternatives, like pipe repair, do not typically offer other

forms of benefits besides risk reduction. Pipe repair generally has similar benefits to pipe replacement, but its upfront costs are lower. Neither pipe repair nor pipe replacement reduce the negative health outcomes from air emissions that arise from gas cooking, which are fully avoided by retiring a pipeline via an NPA. RSE is appropriate to use where the benefits are confined to reduction in risk, such as in the example comparing pipe replacement to pipe repair.

Where there are other benefits, as in the case of NPA, it is appropriate to use a full BCA. The BCA should consider the benefits (in the form of avoided costs, including avoided risk) and costs of the NPA. The baseline for the BCA, against which benefits and costs would be assessed, should be defined and should depend on the context. (If the asset needs to be retired, then the most appropriate baseline may be replacement; if the asset does not need to be retired, it may be appropriate to not take any action, which could serve as the baseline.)

IV. Stranded Cost Risk Will Increase if Gas Companies Continue to Pursue a Business-As-Usual Approach.

Q. Describe Staff's position on stranded assets.

A. Mr. Valcarenghi addresses Issue 6(a) in Order 91791, regarding whether the Commission should adopt expansion policies to address potential stranded

costs.[51] Unlike other non-utility witnesses, Mr. Valcarenghi's testimony does not reflect concern about the risk of stranded assets.[52] His testimony states that the underlying premise of the Commission's question posed by Issue 6(a) is too hypothetical and that it assumes gas expansion is a negative condition.[53] Additionally, Mr. Valcarenghi claims that gas expansion can have the beneficial effect of lowering the cost of service.[54] Asked more in discovery, witness Valcarenghi states that "Restricting natural gas expansion has the natural consequence of increasing costs to customers because additional revenues will not be recovered to offset costs" yet provided no analysis or other evidence to support this conclusion.[55]

Instead of implementing an assessment of stranded costs, Mr. Valcarenghi proposes to periodically gauge the emission content of the system.[56] Mr. Valcarenghi states, "If utilities operate towards achieving emission compliance goals, there should be negligible costs that should be deemed uneconomic that need to be recovered from customers."[57]

[51] Issue 6 asks, "How should the potential for any stranded costs from future natural gas company capital investments be accounted for in long-term gas company planning?" and 6(a) asks, "What, if any, specific policies, guidelines, or regulations should be developed now with respect to the future expansion of natural gas facilities through capital investment?" (Order 91791, August 20, 2025. Case No. 9707, at 7.)
[52] Staff Witness Valcarenghi Direct Testimony at 5:1-3.
[53] Staff Witness Valcarenghi Direct Testimony at 4:1-3.
[54] Staff Witness Valcarenghi Direct Testimony at 4:3-5.
[55] Staff Response to OPC DR 1-3(d) and 1-4(b).
[56] Staff Witness Valcarenghi Direct Testimony at 7:19-18:2.
[57] Staff Witness Valcarenghi Direct Testimony at 8:16-18.

Q. Do you agree with witness Valcarenghi's position on stranded assets?

A. No. Mr. Valcarenghi's lack of concern about stranded assets ignores important indicators that sales are stagnating and in some cases declining,[58] ignores current and forthcoming policies that call for a reduction in building sector emissions,[59] and ignores concerns about rising costs and affordability.

Regarding Mr. Valcarenghi's assertion that gas expansion has the potential to lower the cost of service, this relies on the problematic assumption that customers continue to consume gas at historical levels. For the reasons discussed in Section II.B. of Mr. Takahashi's initial and reply testimony, it is unreasonable to assume that customers will continue to consume gas at historical levels. Continuing to pursue business-as-usual investments in a future where sales and customers decline greatly increases the risk of stranded assets.[60] To mitigate the risk of stranded assets, companies should reduce capital spending immediately by considering lower-cost alternatives to pipe replacement, and companies should plan to meet State emission targets by pursuing the least-cost decarbonization strategies.

[58] Rebuttal Testimony of OPC Witness Takahashi at 4:20–5:3.
[59] OPC Witness Takahashi Initial and Reply Testimony at 26:19-27:3.
[60] Initial and Reply Testimony of OPC Witness Napoleon at 10:14-19.

Q. Are other intervenors concerned about the risk of stranded assets?

A. Yes, MEA and CCAN both expressed concerns about the level of utility spending and the risk of stranded assets.[61] MEA suggests that the Commission should require a formal demonstration of the potential impact on stranded costs and rates whenever a utility requests new capital investment.[62] MEA defines stranded assets as core system assets that are significantly under-utilized due to demonstrated and consistent declining demand over time.[63] CCAN expresses urgency in the need to consider stranded asset risk more seriously to avoid a worst-case outcome for society. Mr. Cebulko states: "The most effective protection against rising costs and stranded assets is to constrain unnecessary capital investment in the first place."[64] He does not suggest a specific way to quantify stranded assets or stranded asset risk, however, he suggests that new capital investments should account for the near- and long-term costs and risks they impose while also accounting for the likelihood of declining throughput.[65]

[61] Direct Testimony of MEA Witness Joyce Lombardi at 4; Direct Testimony of CCAN witness Cebulko at 43:1-44:11.
[62] MEA Witness Lombardi Direct Testimony at 8.
[63] MEA Witness Lombardi Direct Testimony at 8.
[64] CCAN Witness Cebulko Direct Testimony at 84:10-12.
[65] CCAN Witness Cebulko Direct Testimony at 84:5-8.

V. Greater Transparency and Reporting is Necessary to Hold Gas Companies Accountable.

Q. What do Staff witnesses say about transparency and information sharing?

A. Mr. Justi posits that a number of data points would be valuable to include in a gas company's long-term decarbonization plan. These include information "identifying where there is high peak demand and low throughput demand in a gas company's pipe system," as well as "the value of their emissions minimizing capital assets and the value of their traditional capital assets," and "maps of their pipe system showing infrastructure components that have very high capacity factors at peak use and components with relatively low throughput over the course of a year."[66]

Q. Do you agree that the gas companies should provide the information Mr. Justi identified?

A. Yes. Mr. Justi's recommendation that the gas companies provide maps that identify areas or segments of their systems that may be suitable for NPAs aligns with some recommendations in Exhibit AN-4, attached to my initial and reply testimony; this white paper explores the types of data that utilities should include in a geospatial model to support more transparent decision making on NPAs and system investments. To some extent, his recommended data points also appear to overlap with the initial and

[66] Staff Witness Justi Direct Testimony at 19:3-20:13.

continuing informational filings recommended in OPC's May 6, 2025 comments in this case.[67]

Q. Are there additional data points that the gas companies should provide?

A. Yes. There are additional data points, including the data listed in OPC's May 2025 comments[68], that Mr. Justi does not mention in his testimony but which are important for the broader consideration of NPAs than Mr. Justi considers. These include asset physical characteristics and dimensions, leak history, risk scores, and connected service lines and customer characteristics for all terminal branch or dead-end segments in the distribution system. Likewise, for all mains and service lines, information disclosure should include depreciated balances, asset physical characteristics and dimensions, operating pressures, age, leak history, risk scores, connected and downstream customers and types, and planned replacement schedule and costs. Data could be provided in spreadsheets, or even better, in models or maps on which the stakeholder could run queries.

Q. Does Mr. Clementson address information sharing?

A. Yes. He recommends using the Multi-Year Plan ("MYP") process, for the utility that uses this process, as the forum for considering gas planning. Beyond that, he apparently sees no need for any additional changes

[67] Office of People's Counsel, *Comments of the Office of People's Counsel* (Case No. 9707, May 6, 2025) (attached as Exhibit AN-R5).
[68] See Exhibit AN-R5.

concerning transparency. For other gas utilities, he recommends using the rate case process, with an additional requirement to file a long-term plan "for work being conducted for a certain number of years, as determined by the Commission." He indicates that "The plan should include a brief description of how the Company completes its planning, a list of proposed projects for the number of years specified, along with a justification as to why and how the project was selected."[69]

Q. Do you have concerns with Mr. Clementson's recommendation to fold long-term plans into MYPs and rate cases?

A. Yes. Some interested parties will be challenged to intervene in these very broad proceedings. As a result, the parties who are interested in developing and implementing NPAs—such as communities and NPA developers—may be challenged to access relevant data and to provide input that should influence decision-making. Another concern is that other parties who face barriers to participation in these lengthy, time-intensive proceedings but would otherwise help to verify that the gas companies' activities are in line with state mandates and regulatory goals, such as environmental advocates, may not be able to do so.

I understand that OPC has raised numerous problems arising in MYPs, including concerns about access to information, inappropriate risk-

[69] Staff Witness Clementson Direct Testimony at 7:1-11.

shifting, informational asymmetries, and their implications for Commission prudence determinations.[70] Further, the Commission itself has explained that utilities are free to spend MYP-approved rate revenues on capital projects that were not part of the MYP rate case.[71]

Q. Do you have concerns with Mr. Clementson's recommendation of what the plans should include?

A. Yes. The components Mr. Clementson mentions should be included in the plan—a brief description of the methodology, a list of proposed projects for the number of years specified, and justification for project selection—are high-level and may not be a sufficient starting point to enable parties to adequately vet the data without an extensive discovery process. The Commission should provide the gas companies with specific data requirements to ensure consistent units and definitions statewide wherever possible, and to facilitate deeper engagement with the data from the get-go.

Q. Mr. Walton also discusses a process for information sharing. What does he recommend?

A. Mr. Walton recommends an informal technical workshop process for Maryland gas utilities, Commission Staff, and other interested parties to discuss gas system conditions, planning assumptions, and preparations for

[70]Office of People's Counsel, *Initial Comments of the Office of People's Counsel*, ML# 312359 (Case Nos. 9618, 9645, Sept. 16, 2024).
[71]Md. Pub. Serv. Comm'n Order No. 89678, Application of Baltimore Gas and Electric Company for an Electric and Gas Multi-Year Plan (Case No. 9645, Dec. 16, 2020) at 96 ("[T]he Commission is not preapproving any particular work plan or project for purposes of prudency in this Order.").

upcoming winter periods. He contemplates that these workshops would occur semi-annually or annually, and that they would "provide an opportunity for open dialogue and allow stakeholders to better understand each company's planning approach and any evolving market or operational considerations." Further, he calls for the gas companies to file annual gas capacity plan where appropriate, to provide "a consistent and accessible means of presenting this information on a regular basis."

Q. What are your thoughts on Mr. Walton's recommendation?

A. I find that this process as described (pairing workshops with reporting) will be helpful for improving transparency. The Commission should consider whether the process should include the opportunity for the gas companies to incorporate feedback into a final plan.

VI. Summary of Conclusions and Recommendations

Q. Please summarize your conclusions.

A. I find that:

- Even if customer counts are increasing, as claimed by Mr. Clementson, changes to gas planning practices are still needed to address market-driven, declining consumption trends.
- Staff's witnesses present varying and mutually inconsistent opinions regarding consideration of alternatives to investment in traditional gas system infrastructure.

  - Mr. Clementson and Mr. Justi do not consider the range of NPAs that should be explored by gas/electric utilities and using enhanced coordination between separate gas and electric utilities, and the benefits those could confer.
  - Mr. Valcarenghi's claim that removing or rehabilitating aged and leak-prone pipes is the single biggest step a gas utility can take for reducing emissions is inaccurate and does not consider costs.
- MEA's and CCAN's witnesses both highlight the importance of including consideration of risk in gas planning frameworks.
- Mr. Valcarenghi's lack of concern about stranded assets fails to consider important indicators: sales are stagnating and in some cases declining; current and forthcoming policies call for a reduction in building sector emissions' and that business-as-usual heightens important issues about rising costs and energy burdens.
- Mr. Justi offers suggestions regarding information sharing that are likely to be helpful, but expanding on these recommendations to include more data points will be necessary for supporting NPAs and for other reasons.
- Mr. Clementson's recommendation to review gas plans within MRP and rate case processes may deter parties who could help develop NPAs and who could vet gas company proposals from providing valuable input.

Q. What are your recommendations?

A. My recommendations are as follows:

- Gas companies should be required to consider a wide range of NPAs including leak detection and repair, gas demand response plans, pipe lining, and abandonment, and the Commission should provide guidance and a framework for gas and electric companies to work together to promote electrification.
- The Commission should require enhanced gas planning that considers affordability, optionality, stranded asset risk, as well as safety.
- Gas companies should consider, and should be required to consider, NPAs for a broad range of infrastructure investments.
- To mitigate the risk of stranded assets, companies should reduce capital spending immediately by considering lower-cost alternatives to pipe replacement, and companies should pursue least-cost decarbonization strategies.
- The Commission should require the gas companies to disclose information including depreciated balances, asset physical characteristics and dimensions, connected and downstream customers and types, and planned replacement schedule and costs, among other things. Also, the Commission should set specific data requirements to ensure consistent

units and definitions statewide wherever possible, and to facilitate deeper engagement with the data from the get-go.

- Consistent with Mr. Walton's proposal, the Commission should launch a reporting and a technical workshop process for discussing gas system conditions, planning assumptions, and preparations for upcoming winter periods.

Q. Does this conclude your testimony?

A. Yes.