EXH. JAD-1T
DOCKETS UE-240006 & UG-240007
WITNESS: JIM A. DENNISON

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION, d/b/a AVISTA UTILITIES,** **Respondent.**	**Docket UE-240006 &** **Docket UG-240007 (consol.)**

RESPONSE TESTIMONY OF JIM A. DENNISON

ON BEHALF OF SIERRA CLUB

July 3, 2024

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I. INTRODUCTION

Q. Please state your name, title, and business address.

A. My name is Jim A. Dennison. I am a Staff Attorney with Sierra Club. My business address is 1650 38th St. Ste. 103W, Boulder, CO 80301.

Q. Please describe your background and experience.

A. I have been in my role at Sierra Club since May 2022. My responsibilities include litigating Sierra Club cases related to building electrification, primarily before the Washington Utilities and Transportation Commission ("UTC" or "Commission") and other state public utility commissions, as well as coordinating with Sierra Club's campaign, organizing, and chapter staff to ensure that this litigation advances the Sierra Club's mission.

Specifically, my responsibilities have included participating in Avista's 2022 Washington general rate case (dockets UE-220053, UG-220054, and UE-210854 (consolidated)) and submitting written and oral comments to the Commission on Avista's 2023 gas integrated resource plan (docket UG-220244). I also participated in Avista's 2023 general rate case in Oregon (Oregon Public Utility Commission docket UG 461), and I participate in Technical Advisory Group meetings for Avista's 2025 gas integrated resource plan.

Previously, I worked for approximately one year as an associate on RMI's (formerly Rocky Mountain Institute's) carbon-free buildings team. My responsibilities included research and advocacy related to the health and pollution impacts of fossil fuel combustion in buildings and effective policies to address these impacts. For example, I

coauthored a research report on these topics and submitted several technical comments on building decarbonization policies to air quality agencies and other administrative bodies.

I am participating in this proceeding as a witness. My testimony is based on my experience related to building decarbonization policy and my specific experience addressing issues related to building decarbonization in Avista's rate cases and integrated resource plans ("IRPs").

My professional qualifications are discussed further in Exh. JAD-2.

Q. Have you provided testimony before the Commission before?

A. No, I have not testified before the UTC in a litigated proceeding. I have submitted oral and/or written comments to the UTC in several dockets, including U-210553, U-210590, UG-220242, UG-220244, and U-240013.

Q. On whose behalf are you appearing in this proceeding?

A. I am testifying on behalf of Sierra Club.

Q. What is the scope of your testimony?

A. The purpose of my testimony is to describe Sierra Club's interest in ensuring that Avista's gas system investments and actions align with Washington's decarbonization policy, to discuss the ways in which Avista's application in this proceeding implicates these issues, and to offer recommendations that will help position Avista to meet its decarbonization obligations and advance Washington state policy.

I begin by summarizing Washington's policies related to decarbonizing gas utilities. Next, I discuss the opportunities in this proceeding to advance these policies and help ensure that Avista meets applicable decarbonization requirements at lowest cost and lowest risk to its customers. Specifically, these opportunities include phasing out Avista's

electric line extension allowance ("LEA") for new mixed-fuel construction, shifting funds from Avista's gas equipment incentive programs to incentives for weatherization and pre-electrification measures, improving Avista's evaluation of non-pipe alternatives ("NPAs") to gas system investments, conducting a targeted electrification pilot for Avista customers, and developing a robust gas system decarbonization plan.

Q. Please briefly summarize your recommendations.

A. As discussed below, I recommend that the Commission:

- Direct Avista to make its electric line extension allowances available only to all-electric new construction projects and not mixed-fuel projects.
- Direct Avista to (1) eliminate its incentives for installing gas equipment in newly-constructed residential buildings, (2) shift 20% of its funds currently budgeted for residential gas equipment incentives to incentives for building envelope and electrification readiness measures, and (3) include information about available incentives for efficient electric equipment in any materials and communications related to incentives for gas equipment.
- Require Avista to implement the NPA framework described in this testimony and perform NPA analyses for at least five gas infrastructure projects in its next IRP.
- Direct Avista to conduct a Targeted Electrification Pilot program with targets to engage 5,000 customers through home electrification assessments, provide at least 1,000 rebates for electrification equipment, and engage additional customers through education on available electrification incentives and

programs. Include provisions for appropriate engagement of low-income customers and Named Communities through the Pilot.

- Direct Avista to file a gas system decarbonization plan in this docket no later than March 2027, with the elements set forth in this testimony.

II. BACKGROUND ON WASHINGTON CLIMATE POLICY

Q. Has Washington adopted statutes and policies to decarbonize gas utility systems?

A. Yes. Washington has enacted several significant statutes and policies that can advance decarbonization of gas utility systems and buildings, including the Climate Commitment Act ("CCA"), the State Building Code Council's 2021 residential and commercial building codes, Senate Bill 5295, House Bill 1589, and others.

Q. Could you briefly describe the requirements and policies that are most relevant to Avista?

A. The CCA creates direct compliance obligations for Avista, which the Commission summarized in its order approving Avista's 2022 rate case settlement:

> The CCA implements a statewide cap-and-invest program that will make Washington carbon-neutral by 2050, cut Washington's carbon emissions by 95 percent compared to 1990 emission levels by 2050, and offset the remaining 5 percent using carbon reduction, removal, or avoidance projects. The CCA sets a limit on overall carbon emissions in the state and requires emitters to obtain "emission allowances" equal to their covered greenhouse gas (GHG) emissions. Avista, as an electric and natural gas utility, must comply with the CCA.[1]

Other statutes, regulations, and decisions of the UTC and other government bodies express Washington's state climate policy, which the Commission considers in

[1] Washington UTC, Final Order 10/04 ¶ 87, Nos. UE-220053, UG-220054, UG-210854 (consol.) (Oct. 29, 2021) [hereinafter "Final Order 10/04, No. UE-220053"].

determining whether Avista's multiyear rate plan is in the public interest pursuant to Senate Bill 5295.[2]

Washington's climate laws and policies also help shape the environment in which Avista's planning and activities take place. For example, the 2021 building codes encourage highly efficient construction using electric heat pumps, which are a highly cost-effective way of meeting the codes' requirements. Washington offers a growing range of funding support for building electrification, including the Home Electrification and Appliance Rebates ("HEAR") program, which is funded by the CCA's cap-and-invest dollars.[3] Governor Inslee recently committed to accelerating these trends by helping quadruple heat pump installations across U.S. Climate Alliance states by 2030.[4] This policy environment affects Avista's planning and investments by, for example, developing the market for electrification, which can be expected to make electrification an increasingly feasible and cost-effective CCA compliance strategy, and by increasing the risk that investments in traditional gas infrastructure will become stranded as customers electrify.

[2] RCW 80.28.425(1) ("In determining the public interest, the commission may consider such factors including, but not limited to, environmental health and greenhouse gas emissions reductions, health and safety concerns, economic development, and equity, to the extent such factors affect the rates, services, and practices of a gas or electrical company regulated by the commission.").

[3] Washington State Department of Commerce, *State Home Electrification and Appliance Rebates (HEAR) Program*, https://www.commerce.wa.gov/program-index-2/home-electrification-and-appliance-rebate-hear-program/ (last visited July 1, 2024).

[4] U.S. Climate Alliance, *U.S. Climate Alliance Announces New Commitments to Decarbonize Buildings Across America, Quadruple Heat Pump Installations by 2030* (Sept. 21, 2023), https://usclimatealliance.org/press-releases/decarbonizing-americas-buildings-sep-2023/ ("['W]e're taking bold, immediate action by quadrupling heat pump installations by 2030,' said Governor Inslee. 'Heat pumps are available and affordable, not to mention better for the air we breathe. So our commitment today is good for our planet, and for our people.'").

Q. Please describe the changes gas utilities will need to make to meet Washington's decarbonization goals.

A. A growing number of analyses indicate that decarbonizing Washington's gas systems will require significantly reducing gas throughput and electrifying the majority of Washington's buildings. Washington's 2021 State Energy Strategy concludes that "decarbonizing the building sector requires the state to … [m]aximize electrification," and that an electrification scenario is lower-cost than a scenario that relies on decarbonized fuels in buildings.[5] Multiple expert analyses have reached similar conclusions,[6] as have utility commissions in other states including Colorado[7] and Massachusetts.[8]

[5] Washington State Department of Commerce, *Washington 2021 State Energy Strategy* at 15, 46, 66 (Dec. 2020), https://www.commerce.wa.gov/wp-content/uploads/2020/12/Washington-2021-State-Energy-Strategy-December-2020.pdf; *see also* Washington State Department of Commerce, *2023 Biennial Energy Report* at 46 (March 2023), https://deptofcommerce.app.box.com/s/uohdamh5qd1fwal543x78elme2w0pr0h (affirming that "Decarbonizing the building sector requires the state to: Maximize energy efficiency" and "Maximize electrification," among other actions).

[6] *See, e.g.*, E3, *Financial Impact of Fuel Conversion on Consumer Owned Utilities and Customers in Washington* (May 2022), https://www.commerce.wa.gov/wp-content/uploads/2022/06/WA-COU-Building-Electrification-Final-Report.pdf; Poppy Storm et al., *Operation 2030: Scaling Building Decarbonization in Washington State*, Clean Energy Transition Institute & 2050 Institute (Jan. 2022), https://uploads-ssl.webflow.com/5d8aa5c4ff027473b00c1516/61d7a479ba34328152be6239_CETI-2050%20Institute%20Operation%202030%20White%20Paper_2022-01-05.pdf; Jonny Kocher & Talor Gruenwald, *Washington State Could Lead the Nation on Building Electrification Codes*, RMI (Jan. 2022), https://rmi.org/washington-state-could-lead-the-nation-on-building-electrification-codes/; Rewiring America, *Bringing Infrastructure Home: A 50-State Report on U.S. Home Electrification* at 108 (June 2021), https://www.rewiringamerica.org/policy/bringing-infrastructure-home-report.

[7] Colorado Public Utilities Commission, Decision C24-0397, No. 23A-0392EG ¶ 121 (approving a gas utilitity decarbonization plan that prioritizes and maximizes the use of building electrification and DSM, "which the record reflects are the most cost-effective clean heat resources" for meeting the utility's statutory decarbonization targets).

[8] Massachusetts Department of Public Utilities, *Order on Regulatory Principles and Framework*, No. 20-80-B at 70 (Dec. 6, 2023), https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/18297602

It is my opinion that, taken together, these analyses demonstrate that electrification is a highly promising strategy for decarbonizing gas utilities and meeting their CCA compliance obligations. Additionally, continuing to expand the gas system is inconsistent with meeting Washington's decarbonization goals, and gas utilities will need to take steps to avoid the need for additional gas system investments. Gas utilities need to plan for a decarbonized future and start taking the steps needed to get there. The recommendations in this testimony aim to help Avista start taking these steps.

Q. Did Avista's 2022 rate case settlement address its gas system decarbonization obligations and Washington climate policy?

A. Yes. That settlement provided for a phaseout of Avista's gas LEAs, consideration of NPAs in Avista's gas distribution planning process, reporting on the number of new gas customers relative to new electric customers, and a plan for complying with the CCA to be included in Avista's 2023 gas IRP.[9] In its order approving the settlement, the UTC found that these provisions "will promote prudent planning and, in many ways, will aid Avista's compliance with the requirements of the CCA."[10]

Q. How would you characterize Avista's efforts to implement these settlement provisions?

A. In my opinion, Avista's implementation of many of the settlement provisions has continued on a largely business-as-usual trajectory. Avista has not adequately begun

(finding that "[a]s the Commonwealth strives to achieve its 2050 climate targets," the gas system "generally will be limited to strategic circumstances" where electrification is infeasible).

[9] Final Order 10/04, No. UE-220053 ¶ 86.

[10] Final Order 10/04, No. UE-220053 ¶ 88.

making the transformative changes that will be needed to meet its decarbonization obligations and advance the Washington climate policies described above.

Q. Can you give an example?

A. Yes. The preferred portfolio in Avista's 2023 gas IRP incorporates a CCA compliance strategy that relies almost exclusively on CCA allowance purchases, with some synthetic methane in the later years, a very small amount of energy efficiency, and no electrification.[11] I would describe this extreme reliance on CCA allowances as a business-as-usual strategy, and certainly not one that maximizes electrification consistent with the State Energy Strategy. As discussed in Sierra Club's comments on Avista's IRP, Avista's CCA compliance strategy creates financial risks for Avista's customers and risks that Washington will exceed the CCA's statewide emission caps, especially if other utilities pursue similar strategies.[12]

Q. Has the UTC acknowledged Avista's 2023 gas IRP?

A. No, the UTC has not issued a decision on Avista's 2023 gas IRP. However, it did issue a letter declining to acknowledge Cascade Natural Gas's 2023 IRP, which also relied on an allowance-heavy CCA compliance strategy.[13] Cascade's strategy raises similar concerns as Avista's CCA compliance strategy, which are discussed in the UTC Staff comments attached to the Commisison's decision.

Q. Did the Oregon Public Utility Commission acknowledge Avista's 2023 gas IRP?

[11] Exh. JRT-1T at 9.

[12] Exh. JAD-3, Sierra Club Comments on Avista's 2023 Gas IRP at 7-9.

[13] Washington UTC, *Letter from UTC Executiv Director and Secretary Jeff Killip Re: Cascade Natural Gas Company 2023 Natural Gas Integrated Resource Plan*, No. UG-220131 (Feb. 5, 2024).

A. Partially. The Oregon Public Utility Commission ("PUC") acknowledged Avista's near-term action plan, as modified over the course of the IRP proceeding, but did not acknowledge Avista's long-term plan and preferred resource portfolio due to Avista's failure to consider alternative portfolios, its unrealistically optimistic assumptions about alternative fuels, and other issues.[14] I discuss the Oregon PUC's decision further below.

Q. Does Avista's application in this proceeding address its plans to meet applicable gas system decarbonization requirements?

A. Only at a high level. Avista has proposed to hire four new positions to support compliance with the CCA, but the Company is not seeking approval of any incremental costs to comply with the CCA in this proceeding other than the four proposed new hires.[15] Avista Witness Thackston briefly summarizes the approach to CCA compliance reflected in the preferred resource strategy of Avista's 2023 gas IRP, and the Company's "strategy for natural gas decarbonization," which includes alternative fuels, energy efficiency, and carbon offsets.[16]

Witness Thackston discusses the Company's ongoing activities related to renewable natural gas ("RNG"), but acknowledges that RNG has not proven to be a cost-effective resource for CCA compliance.[17] Despite RNG not being cost-effective, the Company has plans to continue issuing annual requests for proposals ("RFPs") for RNG,

[14] Exh. JAD-4, Oregon PUC, Order No. 24-156, No. LC 81 at 1.

[15] Exh. SJK-1T at 8-10.

[16] Exh. JRT-1T at 9-11 ("The Company's strategy for natural gas decarbonization includes diversifying and transitioning from conventional fossil fuel natural gas to RNG, hydrogen, other renewable fuels, and reducing consumption via conservation and energy efficiency. The Company will also purchase carbon offsets as necessary to meet the CCA compliance obligations.").

[17] *Id.* at 10.

but not for other CCA compliance resources.[18] Witness Thackston does not discuss electrification as part of Avista's approach to CCA compliance.

Q. Are there examples of Washington utilities that are making progress toward decarbonizing their gas systems?

A. Yes. Puget Sound Energy ("PSE") entered a settlement in its rate case in 2022, shortly after Avista entered its 2022 rate case settlement. PSE's settlement included provisions to phase out its gas LEAs, update its gas system decarbonization study, conduct a targeted electrification pilot, and develop a targeted electrification strategy.[19] As I describe below, PSE has successfully implemented many of these provisions and developed new electrification-related programs and proposals based on its experience implementing these provisions.

III. LINE EXTENSION ALLOWANCES

Q. What is a line extension allowance?

A. Line extension allowances are subsidies provided to new utility customers by the utility to offset some of the costs of connecting to the utility system. These subsidies are funded through the rates paid by existing customers. Historically, the rationale for LEAs was that adding new customers will spread fixed system costs across a larger customer base, which tends to reduce rates and benefit existing customers in the long term.

However, policy and market shifts are making this historic rationale increasingly inapplicable to LEAs that encourage new connections to the gas system. Adding more

[18] Exh. JAD-5, Avista Response to Sierra Club Data Request SC-006; Exh. JAD-6, Avista Response to Sierra Club Data Request SC-007.

[19] Washington UTC, Final Order 24/10, Nos. UE-220066 & UG-220067 (consol.) ¶ 65 (Dec. 22, 2022).

customers to the gas system will make it more challenging, and more expensive, to comply with decarbonization policies such as the CCA. And because electrifying gas end-uses will be an important strategy for complying with these decarbonization policies, it is increasingly likely that newly-added gas customers will leave the gas system before their contributions to fixed system costs through their gas rates have offset the costs to existing customers of providing the allowance.

Additionally, policies like Washington's 2021 building codes can be expected to reduce the number of new buildings constructed with gas equipment. In this broader context of declining mixed-fuel construction, an LEA that encourages new gas connections may produce sporadic new gas connections, which could undermine LEAs' historic function of increasing utilization of the gas system and impede future targeted electrification efforts. Such an LEA also works against the new codes, and may undermine their ability to make progress toward the statutory goal of "building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031."[20]

Q. Have there been recent changes to gas LEAs in Washington?

A. Yes. In 2021, the Commission issued an order in proceeding UG-210729 that substantially reduced gas utilities' line extension allowances.[21] The order stated that Washington's previous method of setting gas LEAs was "contrary to the legislature's clear direction to reduce greenhouse gas emissions and the use of fossil fuels."[22] It identified several important factors to consider moving forward, including "the likelihood

[20] RCW 19.27A.020(2)(a).

[21] Washington UTC, Order 01 *Authorizing and Requiring Tariff Revisions*, No. UG-210729 (Oct. 29, 2021) [hereinafter "Order 01, No. UG-210729"].

[22] *Id.* ¶ 27.

that natural gas lines will not be serving customers in Washington in perpetuity, the laws and rules in Washington related to greenhouse gas emissions, new requirements in the State Energy and Building Codes, ensuring that utility tariffs do not increase the likelihood of stranded assets in the future, and ensuring that line extension policies do not shift the cost burden from new to current customers."[23]

Avista's 2022 rate case settlement provided for a full phaseout of Avista's gas LEAs by January 1, 2025.[24] Sierra Club's witness testified that this phaseout would advance the public interest by eliminating "a significant driver of gas system expansion" that is "inconsistent with utilities' climate obligations under Washington law."[25]

Q. Are Avista's LEAs now aligned with Washington state decarbonization policy?

A. Partially. Phasing out Avista's gas LEA as a result of the 2022 rate case settlement will help Avista meet its CCA obligations, and will reduce financial risks to existing customers who pay for LEAs through rates. But Avista is still providing a subsidy for new buildings that rely on gas in the form of its electric line extension allowance, which is available to both all-electric and mixed-fuel new construction projects.[26]

[23] *Id.* ¶ 28.

[24] Final Order 10/04, No. UE-220053 ¶ 86.

[25] Washington UTC, Exh. JT-1T, Nos. UE-220053 et al. at 52-53.

[26] *See, e.g.*, Avista Schedule 51, Line Extension, Conversion, and Relocation Schedule: Washington, https://www.myavista.com/about-us/our-rates-and-tariffs/washington-electric (last visited July 1, 2024) ("The rules for Line Extensions in this Schedule apply to all existing and prospective Customers requesting a new line extension.").

Q. Do other provisions of Avista's 2022 rate case settlement relate to new gas customer additions?

A. Yes**.** The settlement required Avista to develop a gas system decarbonization plan for complying with the CCA that included targets for the ratio of new gas customers added relative to new electric customers added.[27]

Avista addressed this requirement in an appendix to its 2023 gas IRP.[28] The appendix stated that Avista does not expect any new gas customers starting in 2025, due in part to the phaseout of its gas LEA, and that any target for the ratio of new gas to electric customers would therefore be zero. The appendix did not discuss any proposed measures to help ensure that Avista's prediction of no gas customer growth holds true, or to meet its "targeted" ratio of zero.

This approach is unacceptable, especially in light of the fact that Avista is still providing subsidies for mixed-fuel construction in the form of its electric LEAs.

Q. Do you have a recommendation to bring Avista's LEAs into better alignment with Washington policy?

A. Yes. I recommend that the Commission direct Avista to modify its electric line extension allowance tariffs to make the allowances available only to all-electric new construction projects and not mixed-fuel construction projects that rely on gas or propane.

[27] Final Order 10/04, No. UE-220053, Appendix A, *Full Multiparty Settlement Stipulation* at 12.

[28] Exh. SJK-7a at 248-251.

Q. Is there precedent for this approach?

A. Yes. In December 2023, the California Public Utilities Commission issued a decision eliminating LEAs for new construction projects that use gas and/or propane in addition to electricity.[29] The California PUC noted that it had previously eliminated gas LEAs, just as Avista's 2022 rate case settlement eliminates its gas LEA in Washington.[30] The PUC found that eliminating electric LEAs for mixed-fuel construction was "the next logical step" toward meeting state climate goals, because it "divert[ed] remaining subsidies away from new mixed-fuel buildings."[31]

The PUC agreed with parties that "eliminating electric line extension subsidies for mixed-fuel new construction will encourage more all-electric new construction and prospectively reduce GHG emissions in the building sector even further," and added that "[e]liminating these subsidies should discourage building mixed-fuel, giving builders a reason to evaluate the cost of creating mixed-fuel gas assets that could be stranded in the coming years" as California's building decarbonization transition progresses.[32]

Q. How would this approach align Avista's LEAs with CCA requirements and Washington climate policy?

A. Eliminating Avista's electric LEA for mixed-fuel construction will align with CCA requirements and Washington state policy for the same reasons that the California PUC

[29] California PUC, Decision 21-12-037, *Eliminating Electric Line Extension Subsidies for Mixed-Fuel New Construction and Setting Reporting Requirements*, No. R.19-01-011 (Dec. 21, 2023), https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K890/521890476.PDF [hereinafter "California PUC, *Electric LEA Decision"*].

[30] *Id.* at 19.

[31] *Id.*

[32] *Id.*

found eliminating these subsidies aligned with California's climate and energy policy. Like the LEAs that California phased out, Avista's electric LEA for mixed-fuel construction represents the last remaining utility subsidy for new construction of buildings using natural gas. And like California, Washington has ambitious decarbonization goals that will be much harder to meet if Avista's gas system continues to grow. Finally, as electrification is accelerated by market and policy forces like Washington's 2021 building codes and Governor Inslee's commitment to help quadruple heat pump installations across U.S. Climate Alliance states by 2030, there is a growing risk that utility investments in mixed-fuel gas assets could become stranded.

IV. GAS EQUIPMENT INCENTIVES

Q. Aside from its LEAs, does Avista provide any other subsidies that encourage the use of gas equipment?

A. Yes. Avista's energy efficiency programs currently include midstream incentives for efficient gas equipment, including furnaces and water heaters.[33]

Q. Are these gas equipment incentives in tension with Washington's climate and energy requirements?

A. Yes. Constructing new buildings with gas and installing new gas equipment will make it harder and more expensive to meet Washington's decarbonization goals. These buildings will either need to be electrified later or Avista will need to procure scarce, costly alternative fuels or CCA allowances to cover the emissions from their gas use.

[33] *See, e.g.*, Avista, *HVAC and Water Heating Discounts*, https://www.myavista.com/energy-savings/rebates-washington/hvac-and-water-heating-discounts (last visited June 30, 2024).

The tension between gas equipment incentives and Washington's climate goals is reflected in House Bill 1589, which provides that "[b]eginning January 1, 2025, no large combination utility may offer any form of rebate, incentive, or other inducement to residential gas customers to purchase any natural gas appliance or equipment."[34] Although House Bill 1589 does not apply to Avista, it illustrates the tension between gas equipment incentives and Washington's climate and energy policy, and it is consistent with this Commission's decisions on related issues.[35]

Moreover, with federal minimum efficiency standards for many types of gas equipment increasing in the near future, there are real questions about whether and how long gas equipment incentives can be expected to induce installations of above-federal-minimum efficiency equipment.

I recognize that installation of minimum-efficiency gas equipment can be considered a worst-case scenario for energy conservation and emissions reduction, and that incentives for more efficient gas equipment can help avoid these minimum-efficiency installations. Washington must shift away from incentivizing gas equipment, but this transition may need to proceed more gradually in areas where the heat pump market is less developed, and where customers are more likely to install minimum-efficiency gas equipment in the absence of incentives for more efficient gas equipment.

[34] Washington Laws of 2024, Chapter 351 § 8(1). Residential incentives for residential electric heat pumps with gas backup and commercial and industrial gas equipment may be offered until January 1, 2031.

[35] *See, e.g.*, Order 01, No. UG-210729 ¶ 25 ("[A]dvancing the availability of natural gas services to Washington customers is no longer state policy."), ¶ 27 (noting "the legislature's clear direction to reduce greenhouse gas emissions and the use of fossil fuels").

Q. Are there other examples of jurisdictions and utilities that have eliminated incentives for gas equipment?

A. Yes. There are good examples in Colorado and California.

In 2023, the Colorado Public Utilities Commission directed Xcel Energy Colorado to phase out its residential retrofit gas water heater incentives by 2025, and phase out its incentives for residential gas space and water heating equipment in new construction by 2024.[36] The Commission stated "it may be appropriate to sunset all incentives related to new gas-fired equipment" by 2027.[37]

Similarly, in 2023 the California Public Utilities Commission enacted a statewide phaseout of certain gas equipment incentives that either apply to newly-constructed buildings or are not cost-effective.[38]

Q. What recommendations do you have based on these observations?

A. I recommend that the Commission direct Avista to:

- Eliminate its incentives for installing gas equipment in newly-constructed residential buildings.
- Shift 20% of the funds budgeted for residential gas equipment incentives in its current Biennial Conservation Plan to incentives for residential building envelope and electrification readiness measures.

[36] Colorado PUC, Decision C23-0413, No. 22A-0309EG ¶¶ 227, 229, 230 (June 22, 2023).

[37] *Id.* ¶ 232.

[38] California PUC, D.23-04-035, *Decision Addressing Codes and Standards Subprograms and Budgets and Staff Proposal on Reducing Ratepayer-Funded Incentives for Gas Energy Efficiency Meausures*, No. A.22-02-005 at 7, 20 (Apr. 6, 2023) ("This decision generally agrees with … Sierra Club that adopting a more immediate phase-out of gas efficiency incentives, in new construction, is consistent with the state and Commission's building decarbonization policy to avoid "locking in" long-lived gas assets.").

- Include information about available utility, local, state, and federal incentives for efficient electric equipment in any materials informing customers about incentives for gas equipment and in responses to residential gas customers that request incentives for gas equipment.

These measures will begin to move Avista away from gas equipment incentives that are in tension with Washington's climate and energy policy, while minimizing the risk that customers will revert to installing minimum-efficiency gas equipment in the absence of incentives for more efficient equipment. These measures will also help Avista start building up its electrification, weatherization, and electrification-readiness programs and education/outreach strategies, so that it can shift an increasing amount of the resources currently dedicated to gas equipment incentives to these initiatives in the future. In particular, weatherization measures represent a "no regrets" investment, because they will produce energy savings and emission reductions whether a building is heated with gas or electric equipment.

Q. Are these recommendations consistent with RCW 80.28.380?

A. RCW 80.28.380 requires gas utilities to identify and acquire all conservation measures that are available and cost-effective, and to establish conservation targets that are approved by the Commission. RCW 80.28.380 does not require gas utilities to pursue any particular type of conservation measure, such as gas equipment incentives. If the Commission adopts my recommendations, Avista will still have many options for pursuing cost-effective conservation measures that can meet the requirements of RCW 80.28.380.

For new construction, Avista should, in conjunction with recommendations made by its Energy Efficiency Advisory Group ("EEAG") and the Commission, continue to pursue all cost-effective conservation measures by offering incentives for building envelope improvements and efficient electric equipment. Indeed, there may be significant questions about whether gas equipment incentives for new construction are cost-effective after accounting for the costs of greenhouse gas emissions, which must be included in cost-effectiveness analysis under RCW 80.28.380, and the costs and stranded asset risks of connecting new buildings to the gas system. For existing buildings, Avista should continue to pursue cost-effective conservation using the 20% of funds shifted to residential building envelope and electrification readiness measures.

Additionally, the Commission may set forth the following process for addressing any inconsistencies with RCW 80.28.380 if it determines that such a process is necessary. If, in the course of implementing the changes to its energy efficiency programs that I have recommended, Avista determines that one or more of these changes is inconsistent with RCW 80.28.380 despite the availability of other conservation measures, it should engage with its EEAG to identify potential solutions. If this does not resolve any inconsistency, Avista should file in this docket a full explanation of the reasoning for its determination, and continue implementing the changes to its energy efficiency programs that it has not determined to be inconsistenent with RCW 80.28.380.

V. NON-PIPE ALTERNATIVES

Q. What are non-pipe alternatives?

A. Non-pipe alternatives are strategies aimed at deferring or avoiding the need for a gas system expenditure, and the associated emissions, costs, and risks. A recent report from

RMI and National Grid defines NPAs as "projects or initiatives intended to simultaneously reduce GHG emissions and defer, reduce, or avoid the need to construct or upgrade components of the natural gas system through customers' installation of all-electric equipment or connection to other lower-carbon infrastructure, including thermal energy networks."[39] Utilities typically evaluate NPAs as part of their resource planning processes, and select an NPA instead of a gas infrastructure project if the NPA is more cost-effective, taking into consideration the NPA's avoided emissions and other costs and benefits.

Q. What are some of the potential benefits of NPAs?

A. NPAs have many potential benefits for gas utility customers. I will highlight three. First, NPAs can avoid the costs of replacing, upgrading, or expanding gas system infrastructure, which are ultimately borne by gas utility customers. Second, NPAs can avoid the risk that new investments in gas infrastructure will become stranded. As I described in Section II above, gas investments are inceasingly at risk of becoming stranded as trends away from expanding the gas system and toward electrification are accelerated by gas utilities' decarbonization obligations and external market and policy forces. Third, NPAs that reduce gas consumption, such as targeted energy efficiency and electrification programs, can avoid gas system emissions and the associated compliance

[39] RMI and National Grid, *Non-Pipeline Alternatives: Emerging Opportunities in Planning for U.S. Gas System Decarbonization* at 1 (May 2024), https://www.nationalgridus.com/media/pdfs/other/CM9904-RMI_NG-May-2024.pdf [hereinafter "RMI and National Grid, *Non-Pipeline Alternatives*"]; *see also* Strategen, *Non-Pipeline Alternatives: A Regulatory Framework and a Case Study of Colorado* at 1 (Oct. 2023), https://drive.google.com/file/d/1P5BRdeRHK4gKsFfpdHZmaCUQbVyaPRq3/view [hereinafter "Strategen Case Study"] ("An NPA is an investment or activity that defers, reduces, or avoids the need to construct or replace gas system infrastructure.").

costs (such as CCA allowance costs), which are likewise borne by gas utilities and their customers.

Because NPAs are pursued by gas utilities as alternatives to gas infrastructure projects, the benefits and costs of NPAs are most appropriately evaluated from the perspective of gas utilities and their ratepayers. From this perspective, the costs of an NPA that includes efficiency and electrification measures are the gas utility's costs of providing incentives for customers to adopt these measures. The primary benefits are the avoided gas infrastructure costs and CCA compliance costs. There can be other benefits, such as the avoided social costs of GHG emissions and health-harming pollution from gas combustion, or comfort and climate resilience benefits for program participants when electrification provides them with access to cooling. But in evaluating cost-effectiveness from the gas utility's perspective, the focus will be on the benefits that accrue to the gas utility. For the same reason, assessments of NPAs' cost-effectiveness from the gas utility perspective will not include the total equipment costs faced by individual program participants, or any electric system costs, benefits, or emissions that could result from NPAs that include electrification.

Q. What are some of the use cases of NPAs?

A. NPAs can be used to avoid a wide range of gas infrastructure projects. RMI and National Grid address application of NPAs "across three categories of gas network investment: replacement of existing infrastructure, capacity expansion of existing system, and system extension to new customers."[40] In a report prepared for the Natural Resources Defense Council, E3 found that targeted building electrification and gas decommissioning projects

[40] RMI and National Grid, *Non-Pipeline Alternatives* at 1.

could feasibly avoid $20 billion in planned gas pipeline replacement costs in California by 2045.[41] In a report prepared for the Colorado Public Utilities Commission, Strategen Consulting discusses opportunities for NPAs to avoid "design day load constraints, asset condition concerns, and mandatory projects" as they become more common and familiar.[42] Rather than rule out broad categories of gas infrastructure projects for NPA consideration, Strategen recommends "[s]creening all capital infrastructure investment types for unplanned safety projects requiring immediate resolution" to eliminate "infeasible NPA projects."[43]

Similarly, utilities should not use strict project cost thresholds to screen out potential NPA candidates. Strategen recommends that cost thresholds "should not be interpreted as hard caps since a strict minimum could incentivize utilities to subvert the threshold."[44] Strategen also notes that "As utilities and states become better acquainted with and more efficient at conducting NPA analysis, the time and cost for developing NPAs may decrease, and PUCs may revisit the NPA analysis threshold."[45] Instead of rigid thresholds, Strategen recommends "full-scale" NPA analysis for large infrastructure projects and a "streamlined" NPA assessment for small projects—an approach that has been applied in New York.[46] Indeed, E3 has found that targeted electrification to avoid

[41] E3, *Avoiding Gas Distribution Pipeline Replacement Through Targeted Electrification in California* at 1 (June 2024), https://www.ethree.com/wp-content/uploads/2024/06/Gas-Decommissioning-Fact-Sheet-2024-06-18.pdf.

[42] Strategen Case Study at 15.

[43] *Id.*

[44] *Id.* at 20.

[45] *Id.* at 20-21.

[46] *Id.* at 21-22, 24.

pipeline replacements "will likely be more cost-effective in less dense sites, *i.e.*, sites with fewer customers per mile of gas main," including rural and suburban communities.[47] RMI and National Grid similarly identify "high-cost gas asset replacements where there is electric headroom and fewer than five customers on a segment" as near-term areas of opportunity for NPAs.[48] These projects may fall below an absolute cost threshold, but remain highly cost-effective NPA opportunities due to the higher ratio of gas infrastructure costs to customers to electrify.

Q. Are there examples of successful NPAs?

A. Yes. Pacific Gas and Electric has successfully completed 88 NPA projects, converting a total of 105 customers from gas.[49] Since launching its Electric Advantage NPA program in 2023, Con Edison has identified over 300 candidate projects.[50] And Xcel Energy Colorado has received commission apaproval for two NPA projects, including a project to electrify downtown Boulder's historic Pearl Street and decommission the gas pipeline that currently serves it.[51]

Q. Did Avista's 2022 rate case settlement require it to evaluate NPAs?

A. Yes. The settlement provided as follows:

> Avista shall integrate the consideration of "non-pipe alternatives" in its gas distribution planning process. "Non-pipe alternatives," at minimum, shall include the use of demand-side management ("DSM") measures,

[47] E3, *Benefit-Cost Analysis of Targeted Electrification and Gas Decommissioning in California* at 57-58 (Dec. 2023), https://www.ethree.com/wp-content/uploads/2023/12/E3_Benefit-Cost-Analysis-of-Targeted-Electrification-and-Gas-Decommissioning-in-California_u.pdf.

[48] RMI and National Grid, *Non-Pipeline Alternatives* at 2.

[49] *Id.*

[50] *Id.* at 12.

[51] Colorado PUC, Decision C24-0397, No. 23A-0392EG ¶¶ 150, 153.

> including but not limited to building envelope efficiency measures, electrification, and gas demand response programs. Avista must discuss its consideration of "non-pipe alternatives" within its future natural gas Integrated Resource Plans ("IRPs") and agrees to discuss with its Energy Efficiency Advisory Group ("EEAG") how DSM measures or programs may best be used as a "non-pipe alternative."[52]

Sierra Club's expert witness testified that "consideration of 'non-pipe alternatives' in gas distribution planning (which include electrification and other demand-side management measures)," along with other settlement provisions, "will help incorporate Washington's equitable decarbonization commitments into Avista's planning and future Commission proceedings, resulting in decisions that better serve the public interest."[53]

Q. Has Avista performed any NPA analyses, as required by its 2022 rate case settlement?

A. Unfortunately, no. In response to a data request in this proceeding, Avista "confirms that it has not performed an analysis of non-pipe alternatives in WA."[54] Thus, none of the gas infrastructure projects for which Avista is seeking rate recovery in this proceeding have gone through NPA analysis to determine whether the resource need can be met at lower cost and in better alignment with Washington's climate and energy policy through a portfolio of NPAs like targeted DSM and electrification incentive programs.

Avista's 2023 IRP included a single paragraph on NPAs, which only outlined types of possible NPAs and the conditions under which they would be considered.[55] As

[52] Final Order 10/04, No. UE-220053, Appendix A, at 11-12.

[53] Washington UTC, Exh. JT-1T, No. UE-220053 at 53.

[54] Exh. JAD-7, Avista Response to Sierra Club Data Request SC-016; *see also* Exh. JAD-8, Avista Response to Sierra Club Data Request SC-019 (stating that "no NPA analysis has been performed to date").

[55] Exh. SJK-7 at 188.

noted in Sierra Club's comments on the IRP, it did not mention any gas infrastructure projects for which NPA analysis was conducted or the outcome of that analysis (because, as Avista has confirmed, it has not conducted NPA analysis for any projects).[56] Sierra Club's comments also note that the IRP does not include any documentation of consultation with Avista's EEAG about how DSM measures can best be used as NPAs, as required by the rate case settlement.[57]

Q. Did Avista explain why it has not performed any NPA analyses?

A. Not adequately. Witness DiLuciano asserts that "[t]o date, no [non-pipe] alternative has allowed us to continue providing adequate capacity for our natural gas customers, which is an essential requirement of service."[58] However, the Company has not provided any explanation or documentation of how it determined (1) the amount of capacity that could be met by any NPA portfolio, or (2) why that amount of capacity would not be adequate to defer or avoid the relevant gas infrastructure project. This is not surprising, because determining whether an NPA can provide adequate capacity is typically done by performing an NPA analysis, which the Company has not done.

Witness DiLuciano's testimony refers to Exh. JDD-2 for the business case supporting the Natural Gas Reinforcement Program projects that he asserts NPAs cannot provide adequate capacity to replace. That exhibit only mentions NPAs in a single paragraph, which is practically identical to the paragraph on NPAs in the Company's 2023 gas IRP.[59] It does not discuss the basis for Witness DiLuciano's assertion, and only

[56] Exh. JAD-3, Sierra Club Comments on Avista's 2023 Gas IRP at 6-7.

[57] *Id.* at 6.

[58] Exh. JDD-1T at 50:20-22.

[59] Exh. JDD-2 at 430.

generally describes some types of possible NPAs and the conditions under which they would be considered.

Furthermore, in response to a data request for any studies, analyses, data, and documents that form the basis for Witness DiLuciano's assertion, the Company could not provide any information about how it determined the amount of capacity an NPA portfolio could meet or whether it would be adequate to meet the resource need.[60] Instead, the response stated that "the incorporation of NPA's in distribution planning is still relatively new and the Company has little experience with NPAs to date."[61] The response goes on to state: "Targeted energy efficiency measures, which may be expensive to study to understand if they will defer the need for a potential reinforcement, take years to implement, and Avista has no control over whether customers choose to participate in energy efficiency or not. Electrification of end use customer load has similar challenges as targeted energy efficiency."[62]

Q. In your opinion, was Avista's explanation sufficient?

A. No. First, I am troubled by the statement that "Avista has no control over whether customers choose to participate" in energy efficiency or electrification programs. The time-tested purpose of efficiency and electrification programs is to induce participation by offering well-designed programs, appropriate incentives, and effective marketing, education, and outreach materials, even though the customer makes the ultimate decision about whether to participate. Avista and other utilities have well-established DSM

[60] Exh. JAD-9, Avista Response to Sierra Club Data Request SC-017.

[61] *Id.*

[62] *Id.*

programs with goals and targets that are approved by the Commission and that the utilities are expected to meet.[63] Avista agreed to incorporate NPA analysis into its gas distribution planning process and IRPs in the 2022 rate case settlement. It is time for Avista to make good on this agreement. Claiming that the Company has "no control" over whether customers participate in the programs that make up NPA portfolios is not an acceptable rationale for failing to meet this commitment.

I agree that "the Company has little experience with NPAs to date," and in my opinion it must overcome this inexperience in order to realize the significant benefits that NPAs can provide. The way for the Company to overcome its lack of experience with NPAs is to begin performing NPA analyses.

Q. What conclusions do you draw from Avista's failure to perform any NPA analyses?

A. In my opinion, Avista's failure to perform any NPA analyses to date shows that the Commission needs to become more involved and give more specific guidance about when and how Avista should evaluate NPAs.

Q. Have other utility commissions directed Avista to perform NPA analyses?

A. Yes. In its decision partially acknowledging Avista's 2023 gas IRP, the Oregon PUC directed Avista to perform and report NPA analyses in its future IRPs. In that proceeding, Oregon PUC Staff's comments included an "expectation" that Avista apply an NPA framework in its future distribution system planning, and detailed the elements that the

[63] *See, e.g.*, RCW 80.28.380 (providing that each gas utility must establish a conservation target every two years, which must be based on a conservation potential assessment prepared by an independent third party and approved by order of the Commission); Exh. DPV-1T at 42:24-25 ("Avista began offering energy efficiency programs to its customers in 1978.").

framework must incorporate.[64] The commission moved Staff's expectation up to the level of a requirement "to ensure that we develop a discipline around NPA analysis to ensure that such analysis is conducted and available before we reach the point that there is no way to avoid a costly capital improvement."[65]

The NPA framework adopted in Oregon requires Avista to identify the rationale for gas infrastructure projects as either Safety/General System Reliability, or Customer Growth/Reliability Related to Growth. Avista must address projects' relationship to its strategy for complying with Oregon's Climate Protection Program ("CPP") and conduct NPA analyses, both for growth-driven projects or groups of geographically related projects that exceed $1 million, and for supply-side resources. The NPA analysis should look forward five years to allow ample time for evaluation and implementation, and if an NPA is not selected due to insufficient time to implement it, Avista should include steps it will take to ensure there is sufficient implementation time to evaluate NPAs for future projects. The NPA analysis must include an explanation of the solutions evaluated, including a description of their projected timelines, annual implementation rates, technical feasibility, and implementation strategy. These are some of the elements of the NPA framework that are most relevant to the reasons Avista has given for not having performed any NPA analyses in Washington to date, but the framework also includes other elements.

[64] Exh. JAD-4, Oregon PUC, Order No. 24-156, No. LC 81 at Appendix A, p. 71.

[65] *Id.* at 12 ("Across gas utility IRPs, we have struggled with this issue of IRPs identifying capital projects too late to avoid an expensive upgrade.").

Q. Has Avista indicated that it is willing to apply the Oregon PUC's NPA framework in Washington?

A. Yes. In response to a data request, Avista stated that the process it will use for NPA analyses "was informed by guidance provided by the Staff of the Oregon Public Utilities Commission (OPUC) in the review of the Company's 2023 Natural Gas Integrated Resource Plan. The Company will follow a similar process for any new projects meeting the dollar criteria of $500,000 or more in Washington."[66]

Q. Based on these observations, do you have any recommendations for improving Avista's NPA analysis in Washington?

A. Yes. I recommend that the Commission require Avista to implement the Oregon PUC's NPA framework in Washington, as set forth in Attachment C to PUC Staff's comments on Avista's 2023 IRP, with a few modifications.

First, references to Oregon's CPP should be replaced with references to Washington's CCA and any other relevant Washington policies. In evaluating the avoided CCA compliance costs of an NPA (pursuant to section 2.b of Attachment C), Avista's analysis should reflect the risk that allowance-based compliance strategies will come into conflict with Washington's overall statewide emissions cap, especially in later years. Assuming that all CCA allowances will be purchased at the ceiling price is an effective way to reflect this risk.

Second, Attachment C's $1 million project cost threshold for performing NPA analysis should be set no higher than $500,000. This reflects Avista's current practice in

[66] Exh. JAD-10, Avista Response to Sierra Club Data Request SC-020.

Washington, which the Company has indicated it is willing to continue as it applies Attachment C's NPA framework in Washington.[67] Going forward, Avista must continue to evaluate whether it is appropriate to limit its NPA framework to growth-driven projects exceeding a $500,000 threshold. As I discussed above, other criteria may be more effective for identifying projects that are good candidates for NPAs, and there may be opportunities to tailor the level of NPA analysis performed for projects with different sizes, budgets, and characteristics. These opportunities to cast a wider net for NPA analysis will be most effective if potential resource needs are identified and evaluated early, as contemplated by Attachment C.

Finally, the Commission should direct Avista to perform NPA analyses for at least five gas infrastructure projects in its next IRP, even if not all of these projects are growth-driven projects that exceed a $500,000 threshold. This will ensure that Avista starts gaining experience with NPA analysis. It will also help the Commission, the Company, and stakeholders evaluate whether a focus on growth-driven projects and a $500,000 threshold are the most appropriate criteria for identifying candidates for NPAs. Avista would not be required to perform NPA analyses for other projects below the $500,000 threshold in the future, unless the Commission decided to modify the NPA framework based on learnings from this first set of NPA analyses. In this way, the first set of NPA analyses in Avista's next IRP can be thought of an NPA analysis pilot.

[67] Exh. JAD-10, Avista Response to Sierra Club Data Request SC-020 ("The Company will follow a similar process [to the one set forth in Attachment C] for any new projects meeting the dollar criteria of $500,000 or more in Washington.").

VI. TARGETED ELECTRIFICATION PILOT

Q. Are there other ways that Avista can advance electrification?

A. Yes, Avista should conduct a robust Targeted Electrification Pilot program. This would provide an excellent opportunity to gain first-hand experience designing and implementing electrification programs, incorporating them into Avista's CCA compliance strategy and overall gas system planning, and coordinating them with other electrification programs and funding sources.

Q. What lessons and benefits could such a Targeted Electrification Pilot provide?

A. There are several. First, a Targeted Electrification Pilot would complement Avista's efforts to gain experience with NPA analysis, which I discussed in Section V above. Key questions for determining whether an NPA portfolio that incorporates electrification can successfully meet the resource need to defer or avoid an infrastructure project include how to design and implement an electrification program, how much gas demand the program can avoid, and at what cost. A Targeted Electrification Pilot will give Avista needed experience in addressing these and related questions, which will help inform future NPA analyses and strategies. Relatedly, if Avista's initial set of NPA analyses for its next IRP identify areas where electrification could avoid, defer, or reduce gas infrastructure costs, Avista could focus its Targeted Electrification Pilot in these areas, and any resulting savings on gas infrastructure costs could help offset the Pilot's costs.

Second, a Targeted Electrification Pilot will help Avista identify ways to incorporate electrification into its CCA compliance strategy. As I discussed in Section II above, electrification is one of the most promising, cost-effective strategies for reducing gas utilities' GHG emissions, making it an essential element of a gas utility's strategy for

reducing those emissions to comply with the CCA. But Avista has not yet developed plans to incorporate electrification into its CCA compliance strategy.[68] Conducting a Targeted Electrification Pilot will push Avista to identify ways to incorporate electrification into its gas decarbonization and CCA compliance strategy.

Third, a Targeted Electrification Pilot will identify opportunities to coordinate Avista's electrification efforts with other electrification programs and policies, and to leverage other sources of electrification funding to make the most of utility investments in electrification. For example, utility-provided incentives can be stacked with federal rebates and tax credits under the Inflation Reduction Act ("IRA"), as well as Washington state-funded rebates such as the HEAR Program, to significantly reduce equipment costs, induce uptake, and reduce the utility's contribution to the overall incentive package.[69] An example of this approach is PSE's partnership with the City of Lacey, where the city is matching electrification rebates available through PSE's own electrification pilot.[70]

[68] *See, e.g.*, Exh. JRT-1T at 9:5-9 (noting that the Company's strategy for natural gas decarbonization includes RNG, hydrogen, other renewable fuels, conservation and energy efficiency, and carbon offsets to meet CCA compliance obligations, but not mentioning electrification).

[69] *See, e.g.*, RMI, *Gaps and Barriers to Stacking Federal, State, and Local Incentives* (Dec. 2023), https://rmi.org/wp-content/uploads/dlm_uploads/2023/12/stacking_federal_state_and_local_incentives.pdf; Washington State Department of Commerce, *State Home Electrification and Appliance Rebates (HEAR) Program*, https://www.commerce.wa.gov/program-index-2/home-electrification-and-appliance-rebate-hear-program/ (last visited July 1, 2024); City of Lacey, *Energy Efficiency Rebate Matching Program*, https://cityoflacey.org/sustainability/energyrebate/ (last visited July 1, 2024).

[70] PSE, *Puget Sound Energy, City of Lacey Partnership Doubles Energy Rebates for Residents* (Sept. 14, 2023), https://www.pse.com/en/press-release/details/Puget-Sound-Energy-City-of-Lacey-partnership-doubles-energy-rebates-for-residents.

I expect a Targeted Electrification Pilot will provide further opportunities to gain experience that will be valuable in Avista's gas decarbonization transition, beyond the ones I have discussed here.

Q. Are there any examples of successful targeted electrification pilots in Washington?

A. Yes. Puget Sound Energy launched a targeted electrification pilot in September 2023, as an outcome of its 2022 general rate case settlement.[71]

PSE's 18-month pilot has a target of engaging 10,000 customers through fuel-switching incentives, home electrification assessments, and education related to available electrification incentives and programs.[72] PSE will file a report summarizing the results of its pilot in January 2025, and the settlement identifies several areas where the pilot should advance PSE's knowledge, including opportunities to coordinate electrification with distributed energy resource ("DER") investment and recommendations for improving heat pump adoption, especially among low-income customers and highly-impacted populations.[73] The settlement includes provisions to ensure that PSE's pilot provides demonstrated material benefits to low-income participants, enrolls eligible participants in bill assistance programs, and includes appropriate low-income customer protections.[74]

[71] Washington UTC, Final Order 24/10, No. UE-220066 et al. ¶ 65; PSE, *Puget Sound Energy Launches Targeted Electrification Pilot in Its Service Area* (Sept. 7, 2023), https://www.pse.com/en/press-release/details/Puget-Sound-Energy-Launches-Targeted-Electrification-Pilot-in-Its-Service-Area.

[72] Washington UTC, Final Order 24/10, Appendix A, Revenue Requirement Settlement Stipulation, No. UE-220066 at 37-38. The settlement directs PSE to engage 10,000 customers, each through at least two of the three measures listed.

[73] *Id.* at 38-39.

[74] *Id.* at 39-40.

The costs of PSE's pilot are spread to electric rate schedules based on the share of pilot funding expended for each schedule.[75]

PSE's electrification pilot has been very successful. As of May 20, 2024, PSE had conducted 7,712 home electrification assessments (with over 30% of these assessments reaching Named Communities[76] or low-income customers), provided 852 heat pump rebates, performed 14 low-income direct-install weatherization and electrification projects, and identified candidates for small business and multi-family retrofit projects.[77] Findings from PSE's pilot will inform its broader targeted electrification strategy.[78] PSE projects that it is on track to complete 10,000 in-home electrification assessments, and provide up to 50 low-income direct installations, two multi-family direct installations in Named Communities, and two small business direct installations in Named Communities through the pilot.[79] PSE's work on its electrification pilot has also led to the development of a joint pilot with Seattle City Light, which is currently underway and aims to install heat pumps in 20 homes through the Low-Income Weatherization Program.[80] Following these successes, PSE has already proposed a Phase 2 targeted electrification pilot that will expand on its initial pilot by broadening its customer reach and assessing whether

[75] *Id.* at 40.

[76] As explained by Avista Witness Thackston, "'Named Communities' is an umbrella term that includes Highly Impacted Communities and Vulnerable Populations as those terms are defined in RCW 19.405.020 (23) and (40)." Exh. JRT-1T at 11 n.6.

[77] Exh. JAD-11, PSE, *GRC Settlement: Targeted Electrification Pilot Updates* at 6, 10, 12, 14 (May 24, 2024).

[78] Washington UTC , Exh. JM-1CT (redacted), No. UE-240004 & UG-240005 (consol.) at 10 (Feb. 15, 2024).

[79] *Id.* at 4-7.

[80] *Id.* at 13-14.

targeted electrification can alleviate the need to expand PSE's gas delivery system in a capacity-constrained area.[81]

Q. What recommendations do you have for a Targeted Electrification Pilot for Avista?

A. I recommend that the Commission direct Avista to conduct a Targeted Electrification Pilot program that is similar to PSE's successful pilot, with some key modifications. Specifically, Avista's Targeted Electrification Pilot should include four key elements: (1) targets for the number of customers engaged through incentives and educational materials; (2) provisions to engage low-income customers and Named Communities through the Pilot, enroll eligible participants in bill assistance programs, ensure that these customers benefit from the Pilot, and provide appropriate low-income customer protections; (3) provisions for publicly reporting the Pilot's results and lessons learned to the Commission, and (4) provisions to incorporate the Pilot into Avista's broader decarbonization and CCA compliance strategies.

Q. Please elaborate on the first element, customer engagement targets.

A. Meaningfully engaging a significant number of customers is a core goal of a Targeted Electrification Pilot, and a key measure of its success. I recommend that the Commission set a target of engaging 5,000 customers through home electrification assessments and providing at least 1,000 rebates for electrification equipment, with additional engagement through education on available electrification incentives and programs. I propose that Avista's Pilot run for 18 months, from June 2025 to December 2026.

These proposed targets are somewhat lower than the target of engaging 10,000 customers through PSE's pilot, reflecting factors like Avista's smaller number of gas

[81] *Id.* at 15-27.

customers. However, they still represent a significant amount of customer engagement that will allow Avista to learn from the Pilot and make meaningful initial progress toward decarbonization objectives. Some of the factors that make these targets attainable include Avista's opportunity to learn from PSE's pilot and other utility experience with electrification, and its opportunities to leverage federal and state electrification programs and funds (several of which have been recently rolled out or are expected to come online in the near future) to maximize the effectiveness of its Pilot.

Rebates provided through the program should include a mix of all-electric heat pump installations (where the existing gas furnace is removed), heat pump installations in lieu of one-way air conditioners (where existing gas equipment may be retained as backup heat), and heat pump water heater installations. This mix of measures will allow Avista to gain experience with different electrification strategies, and will give it multiple avenues to achieve the target of providing 1,000 electrification rebates. In particular, installing heat pumps in lieu of one-way air conditioners has been identified as one of the most cost-effective and technically straightforward opportunities to advance electrification and reduce reliance on gas equipment.[82] Pilot funds should not be used to

[82] *See, e.g.*, Western Resource Advocates et al., *A Path to Pollution-Free Buildings: Meeting Xcel's 2030 Gas Decarbonization Goals* at 4, 15-16 (July 2023), https://westernresourceadvocates.org/wp-content/uploads/2023/07/Path-to-Pollution-Free-Buildings-July-2023.pdf; Colorado PUC, Decision C24-0397, No. 23A-0392EG ¶ 56 (summarizing party arguments that "replacing the AC unit with a standard heat pump is a very cost-effective option that reduces a majority of the gas consumed at a modest incremental cost," "represents a far easier customer decision than a furnace replacement with a cold climate heat pump," and "requires no expansion of a home's electrical capacity or ductwork," and concluding "[w]e agree with those arguments fully and believe replacing AC units with a heat pump represents a critical stepping stone as customers become more acquainted and trusting of heat pump technology").

install new gas equipment (such as a new electric heat pump with newly-installed gas backup heating).

Q. How should Avista's achievement of the Pilot's customer engagement targets be considered in evaluating Avista's performance during this multiyear rate plan?

A. I recommend that achievement of the customer engagement targets be used as a performance measure to evaluate the Company's performance during this multiyear rate plan. Avista Witness Bonfield proposes to use 9 performance measures to evaluate its performance pursuant to RCW 80.28.425(7).[83] None of Witness Bonfield's proposed metrics relate to advancing CCA compliance or other Washington climate policies. I view this as a significant omission, because RCW 80.28.425 provides for considering "environmental health and greenhouse gas emissions reductions" in determining the public interest, and RCW 80.28.425(7) identifies "attainment of state energy and emissions reduction policies" as a relevant consideration for developing performance measures and incentive mechanisms. Including customer engagement through the Targeted Electrification Pilot as a performance measure would help the Commission evaluate Avista's performance in advancing state climate policy.

If the Commission decides that performance incentive mechanisms are required pursuant to RCW 80.28.425(7), Witness Bonfield proposes a single performance incentive mechanism under which the Company would receive an annual $500,000 incentive if it achieves six measures described in his testimony.[84] If the Commission approves such an incentive mechanism, I recommend that the Commission incorporate

[83] Exh. SJB-1T at 10-11.

[84] Exh. SJB-1T at 11-15.

achievement of the Pilot's customer engagement targets as a seventh measure. Under this arrangement, Avista would be required to meet the Pilot targets of 5,000 home electrification asssessments and 1,000 electrification rebates in order to receive the incentive.

Q. Please elaborate on the second Pilot element, provisions for engaging low-income customers and Named Communities.

A. I recommend that Avista's Targeted Electrification Pilot include provisions for engaging low-income customers and Named Communities that are similar to the provisions on these issues in PSE's 2022 rate case settlement.[85] House Bill 1589 also provides for the inclusion of low-income electrification programs in large combination utilities' Integrated System Plans.[86] Although House Bill 1589 does not apply to Avista, its provisions on low-income electrification programs and low-income customer protections could inform these elements of Avista's Targeted Electrification Pilot. It may also be appropriate to set a target for the number of electrification retrofits performed in low-income households and Named Communities through the Pilot. This and other aspects of the Pilot related to low-income and Named Community participation could be informed by input from the Company and other parties.

Q. Please elaborate on the third element, reporting Pilot results.

A. I recommend that the Commission direct Avista to file a report summarizing the results of its Targeted Electrification Pilot by January 2027. The report should include information about the number of customers engaged and through which measures, the

[85] Final Order 24/10, Appendix A, No. UE-220066 at 38-39.

[86] Washington Laws of 2024, Chapter 351 § 3(4)(i).

number and types of equipment incentives provided (all-electric heat pumps, heat pumps installed in lieu of one-way air conditioners, and heat pump water heaters), Avista's cost of providing each measure, and the amount of gas consumption (and corresponding greenhouse gas emissions) avoided through each measure. The report should also describe any lessons learned through the Pilot about opportunities and barriers to heat pump adoption, especially among low-income customers and Named Communities, as well as strategies for overcoming those barriers.

Q. Please elaborate on the fourth element, incorporating the Pilot into Avista's broader decarbonization and CCA compliance strategies.

A. As I described in Section II above, electrification is an important and cost-effective strategy for reducing emissions from gas end-uses and advancing decarbonization policy, including the CCA. A critical element of the Targeted Electrification Pilot will therefore be identifying ways to incorporate electrification into Avista's broader strategy for decarbonizing its gas system and meeting its obligations under the CCA. I recommend that lessons learned from the Targeted Electrification Pilot be incorporated into a Gas System Decarbonization Plan for Avista, which I describe in Section VII below.

Because electrification programs will reduce Avista's gas system emissions and help it comply with the CCA, the costs the Targeted Electrification Pilot and other electrification programs should be treated as CCA compliance costs and recovered from Avista's gas customers. To the extent that CCA compliance costs are shared between Avista's gas customers and its shareholders, electrification program costs should be shared in the same way, because they are costs of complying with the CCA. This is different from the approach to recovering costs for PSE's electrification pilot, but in my

opinion it is better-aligned with the principle of allocating CCA compliance costs to the entities that are responsible for that compliance.

The CCA creates compliance obligations for gas utilities, and electrification of gas end-uses is a way to meet these obligations by reducing a gas utility's emissions. Avista's electric customers do not benefit from measures to meet the decarbonization obligations of Avista's gas business, and they may in fact see some costs associated with meeting additional electric load as a result of electrification. Moreover, to the extent electrification programs are deployed as non-pipe alternatives, the cost savings from avoided, deferred, or reduced gas infrastructure projects accrue to Avista's gas customers, not its electric customers. As Colorado's PUC recently recognized, "it is not logical for the gas system and its customers to bear no cost of compliance" with Colorado's Clean Heat statute, "since that is the system statutorily obligated to reduce emissions."[87]

VII. GAS SYSTEM DECARBONIZATION PLAN

Q. Did Avista's 2022 rate case settlement include a provision to develop a Gas System Decarbonization Plan?

A. Yes. The settlement required Avista to "include in its 2023 Natural Gas IRP, a gas system decarbonization plan for complying with the Climate Commitment Act."[88] The decarbonization plan was required to include a supply curve of decarbonization resources by price and availability, consider "a comprehensive set of strategies, programs,

[87] Colorado PUC, Decision C23-0413, No. 23A-0392EG ¶ 246. The Colorado commission ultimately decided to split electrification costs between gas and electric customers, rather than allocate all of these costs to gas customers, partly in order to maintain consistency with a prior decision of that commission. Given the compliance benefits to gas customers and the uncertainty of any benefits to electric customers, the appropriate place to start is allocating the costs of the Targeted Electrification Pilot to Avista's gas customers.

[88] Final Order 10/04, No. UE-220053, Appendix A, at 12.

incentives and other measures to encourage new and existing customers to adopt fully energy efficient appliances and equipment or other decarbonization measures," and include targets for the ratio of new gas customers added relative to new electric customers added.

Q. How has Avista implemented that settlement provision?

A. Avista did not include a description of its Gas System Decarbonization Plan in the body of its 2023 gas IRP. Instead, Avista described the ways it purported to have met this settlement requirement in an appendix to the IRP.[89]

The appendix does include a set of supply curves for RNG, green hydrogen, synthetic methane, and energy efficiency. The appendix does not include a supply curve for electrification.

For the requirement to consider a comprehensive of efficiency and decarbonization strategies, the appendix includes a single paragraph referring to chapters 3 and 6 of the IRP and the conservation potential assessments found elsewhere in the appendix. As noted in Sierra Club's comments on the IRP, "Chapter 3 discusses DSM resources, but does not mention the CCA, decarbonization, or the role of electrification and DSM in meeting CCA targets. Chapter 6 presents Avista's Washington preferred portfolio and CCA compliance strategy, which is heavily focused on allowance purchases and meets only a tiny fraction of forecasted demand through DSM."[90]

For the requirement to include targets for the ratio of new gas customers to new electric customers, the appendix includes a paragraph explaining that Avista does not

[89] Exh. SJK-7a at 248-251.

[90] Exh. JAD-3, Sierra Club Comments on Avista's 2023 Gas IRP at 6.

expect any new gas customers starting in 2025, and that any target for the ratio of new gas to electric customers would therefore be zero.

Q. In your opinion, has the previous Gas System Decarbonization Plan helped Avista prepare to meet its CCA obligations and advance Washington's decarbonization policy?

A. No. As Sierra Club noted in its comments on the IRP, "Avista cannot meet its GRC settlement commitments by simply pointing to scattered sections of its IRP that generally address topics related to those identified for consideration in the decarbonization plan."[91]

The lack of progress on Avista's gas system decarbonization planning is reflected in its proposal for addressing CCA compliance in this proceeding. As discussed in Section II above, this proposal lacks detail, continues to over-rely on CCA allowances, continues to pursue RNG despite RNG not being a cost-effective CCA compliance resource, and does not include electrification despite the growing set of findings that electrification is a cost-effective and essential strategy for decarbonizing Washington's gas systems.

Q. Has Avista received direction on how to improve its approach to gas system decarbonization planning from other jurisdictions?

A. Yes. The Oregon PUC declined to acknowledge the long-term plan in Avista's 2023 IRP due to Avista's failure to consider alternative portfolios, its unrealistically optimistic assumptions about alternative fuels, and other issues.[92] The commission stated that "[i]n today's landscape, with rigorous emissions policies in place or likely to be in place,

[91] *Id.*

[92] Exh. JAD-4, Oregon PUC, Order No. 24-156, No. LC 81 at 6-7.

alternative resource strategies for achieving least cost, least risk compliance are now relevant to gas companies," and that "[a] single resource strategy that relies on what Staff and many stakeholders consider to be overly optimistic assumptions about the future availability and cost of synthetic methane is particularly problematic."[93]

Oregon PUC Staff's comments included several expectations that the commission generally did not adopt as requirements, but considers "to be suggestions that Avista should consider and discuss with Staff and other stakeholders in preparation for the next IRP or any IRP update."[94] Staff's Expectations 19 and 21 are especially relevant to the commission's suggestion that Avista should consider "proactive electrification."[95] These expectations direct Avista to consider providing electrification incentives as a "proactive resource strategy."[96] As the Oregon PUC Staff's comments discuss, "Natural gas utilities are expected to proactively consider the role of building electrification as they select resources to meet demand and reduce emissions."[97] In order to appropriately model electrification as a resource option for achieving these requirements, "Avista should use an incentive strategy to price electrification."[98] However, Avista modeled electrification

[93] *Id.* at 6 (noting that in light of the possibility that forecasts about alternative fuels are "significantly off," the Company should consider additional portfolio options "including whether compliance is possible without aggressive energy efficiency, other demand side programs and proactive electrification, and what the implications of the latter would be").

[94] *Id.* at 9.

[95] *Id.* at 7.

[96] *Id.* at Appendix A, p. 41.

[97] *Id.* at Appendix A, p. 34.

[98] *Id.* at Appendix A, p. 34; *see id.* at 36 ("Staff recommended using an incentive strategy cost as the proxy for electrification. Staff explained that this strategy would identify the tipping point to incentivize the gas customer to switch from a gas to electric appliance. Staff did not expect the tipping point would be the entire conversion price, but rather the portion needed to incent the customer to make the switch. The

costs as "the sum of [equipment] conversion costs and electricity costs to the gas ratepayer," which "did not capture electrification as a *proactive* resource strategy."[99]

I agree with Oregon PUC Staff that Avista's decarbonization planning should evaluate electrification as a proactive resource strategy for complying with Avista's decarbonization obligations, including its CCA compliance obligations.

Q. Does a Gas System Decarbonization Plan offer opportunities to synthesize lessons learned from the other decarbonization measures you have recommended?

A. Yes. A Gas System Decarbonization Plan can incorporate lessons from the Targeted Electrification Pilot I have proposed for Avista, similar to the way PSE's targeted electrification strategy will incorporate lessons from its pilot. A Gas System Decarbonization Plan can also evaluate how eliminating electric LEAs for mixed-fuel construction and shifting funds away from gas equipment incentives, along with other measures, can help avoid expansion of the gas system that will make decarbonization more difficult and costly. Finally, the Plan can address how NPAs can be used to reduce stranded asset risk by avoiding gas system investments, and eventually by facilitating reductions in the size and costs of the existing gas system.

Strategies to reduce Avista's natural gas rate base, such as NPAs and geographically-targeted electrification projects, are likely to be especially important for maintaining affordable gas rates as Avista decarbonizes its gas system.[100] Gas throughput

incentive strategy would reduce [Climate Protection Plan] compliance costs and emissions, the value of which would be realized through rates.").

[99] *Id.* at Appendix A, p. 34; *see id.* at 36 ("Staff continues to find Avista's method of including the entire conversion price problematic.").

[100] E3, *A New E3 Benefit-Cost Analysis of Targeted Electrification and Gas Decommissioning Shows Potential for Cost Savings* (Dec. 7, 2023) https://www.ethree.com/a-new-e3-benefit-cost-analysis-of-

will likely need to decrease significantly in order to meet long-term decarbonization requirements and objectives, and this is likely to increase rates as fixed system charges are spread over a smaller amount of demand, unless the gas rate base is also reduced through strategies like NPAs and targeted electrification.

Q. Based on your review of the testimony in this case and your experience, what recommendations do you have related to a Gas System Decarbonization Plan for Avista?

A. I recommend that the Commission direct Avista to file a Gas System Decarbonization Plan in this docket no later than March 2027. Avista's Gas System Decarbonization Plan should include the following elements:

- Incorporate findings from Avista's Targeted Electrification Pilot.
- Evaluate a range of decarbonization and CCA compliance measures, including evaluation of building electrification as a proactive resource strategy.
- Address opportunities to coordinate Avista's efficiency and electrification measures with other available funds and programs, including the IRA and Washington's HEAR program.
- Analyze at least one scenario in which Avista's annual gas system emissions are no greater than its share of the statewide CCA emissions cap, without relying on additional allowances. Estimate the percent reduction in gas system

targeted-electrification-and-gas-decommissioning-shows-potential-for-cost-savings/ (noting that although pipeline replacements that could be avoided by targeted electrification and gas decommissioning reflect "a relatively small share of total distribution main miles, pipeline replacement projects represent a large share of anticipated capital expenditures over the coming decades. Thus, targeted electrification and gas decommissioning projects could reflect an important opportunity to support a managed transition for California's gas system by reducing costs for remaining gas customers.").

throughput by 2030 in this scenario, and identify strategies that would reduce Avista's gas system rate base by the same percentage in 2030.

VIII. CONCLUSION

Q. Please summarize your recommendations.

A. I recommend that the Commission:

- Direct Avista to modify its electric line extension allowance tariffs to make the allowances available only to all-electric new construction projects and not mixed-fuel construction projects that rely on gas or propane.
- Direct Avista to (1) eliminate its incentives for installing gas equipment in newly-constructed residential buildings, (2) shift 20% of the funds budgeted for residential gas equipment incentives in its current Biennial Conservation Plan to incentives for residential building envelope and electrification readiness measures, and (3) include information about available utility, local, state, and federal incentives for efficient electric equipment in any materials informing customers about incentives for gas equipment and in responses to residential gas customers that request incentives for gas equipment.
- Require Avista to implement the Oregon PUC's NPA framework in Washington, as set forth in Attachment C to PUC Staff's comments on Avista's 2023 IRP, with the modifications described in this testimony.
- Direct Avista to perform NPA analyses for at least five gas infrastructure projects in its next IRP.
- Direct Avista to conduct an 18-month Targeted Electrification Pilot program with targets to engage 5,000 customers through home electrification

assessments, provide at least 1,000 rebates for electrification equipment, and engage additional customers through education on available electrification incentives and programs. Provide for engagement of low-income customers and Named Communities through the Pilot, including provisions to enroll eligible participants in bill assistance programs, ensure that these customers benefit from the Pilot, and provide appropriate low-income customer protections.

- Include achievement of the Targeted Electrification Pilot's customer engagement targets as a measure for evaluating the Company's performance. If the Commission approves a performance incentive mechanism for Avista, incorporate achievement of the Pilot's customer engagement targets as a requirement for receiving the performance incentive.
- Direct Avista to file a report in this docket summarizing the results of its Targeted Electrification Pilot by January 2027.
- Treat Targeted Electrification Pilot program costs as CCA compliance costs to be recovered from gas customers, subject to the same cost-sharing arrangements that apply to other CCA compliance costs.
- Direct Avista to file a Gas System Decarbonization Plan in this docket no later than March 2027, with the elements set forth in this testimony.

Q. Does this conclude your testimony?

A. Yes, it does.