EXH. DJL-10T
DOCKETS UE-240004/UG-240005 et al.
2024 PSE GENERAL RATE CASE
WITNESS: DAVID J. LANDERS

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**Docket UE-240004** **Docket UG-240005**
In the Matter of the Petition of **PUGET SOUND ENERGY** **For an Accounting Order Authorizing deferred accounting treatment of purchased power agreement expenses pursuant to RCW 80.28.410**	**Docket UE 230810** **(*consolidated*)**

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF

DAVID J. LANDERS

ON BEHALF OF PUGET SOUND ENERGY

SEPTEMBER 18, 2024

PUGET SOUND ENERGY

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF DAVID J. LANDERS

CONTENTS

PUGET SOUND ENERGY

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF DAVID J. LANDERS

LIST OF EXHIBITS

PUGET SOUND ENERGY

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF DAVID J. LANDERS

I. INTRODUCTION

Q. Are you the same David J. Landers who submitted prefiled direct testimony on February 15, 2024 on behalf of Puget Sound Energy in this proceeding?

A. Yes, on February 15, 2024, I filed the Prefiled Direct Testimony of David J. Landers, Exh. DJL-1Tr, and eight supporting exhibits (Exh. DJL-2 through DJL-9), on behalf of Puget Sound Energy ("PSE").

Q. What is the purpose of your rebuttal testimony?

A. My rebuttal testimony responds to concerns regarding PSE's natural gas plant capital expenditures raised by the Joint Environmental Advocates ("JEA") in the response testimony of Bradley T. Cebulko, Exh. BTC-1T, and to recommendations by Commission Staff in the response testimony of Chris R. McGuire, Exh. CRM-1Tr, for reporting average connection times for new services.

First, I respond to Cebulko's testimony that PSE's gas plant capital expenditures are not aligned with customer and public interests in achieving state policies.[1] I demonstrate that planned gas plant capital investments during the proposed

[1] Exh. BTC-1T at 71:11-77:13.

multiyear rate plan are in fact aligned with federal and state law and Commission orders. I show that over 90 percent of PSE's planned gas plant capital expenditures are "non-discretionary," are consistent with current law, and are required to fulfill commitments under tariffed service obligations and regulatory requirements for pipeline safety and integrity management programs that address identified high-risk issues in a timely manner. I also demonstrate that the limited "discretionary" proposed gas system capital expenditures provide important benefits to customers by reducing operations and maintenance ("O&M") costs and mitigating risks to service reliability for existing customers on firm rate schedules. In sum, Cebulko is incorrect that PSE's proposed gas plant expenditures are not aligned with customer interests or state policies.

Second, I respond to Cebulko's testimony that the Alternate Fuels Readiness program should be eliminated due to lack of specificity in PSE's objectives of the program and because alternative fuels cannot scale to substantially meet PSE's emissions reduction goals.[2] Contrary to Cebulko's claims, PSE has provided detailed plans for the Alternate Fuels Readiness program, including how it will advance PSE's knowledge of alternate fuels technology through limited spending (less than one percent of proposed gas capital expenditures during the multiyear rate plan) for the purpose of remaining apprised of industry developments in clean fuel technology and to avoid prematurely dismissing clean

[2] Exh. BTC-1T at 32:18-40:6.

energy alternatives that may prove beneficial in addressing hard-to-decarbonize natural gas end uses.

Third, I address Cebulko's recommendation that the Commission adopt a requirement that PSE demonstrate that it considered alternatives to traditional pipeline investments as a condition of recovering additional investment in pipeline and distribution mains that are not emergency repairs.[3] While PSE supports the use of alternatives to traditional pipeline investments and is actively exploring the use of non-pipeline alternatives ("NPAs"), mandating an alternatives assessment is premature. More work is needed to fully evaluate the feasibility of NPAs. Moreover, recently enacted Engrossed Substitute House Bill ("ESHB") 1589[4] already provides a framework for assessing the use of NPAs as part of PSE's forthcoming Integrated System Plan ("ISP"). Given that the Legislature has provided direction on the evaluation of NPAs, the Commission should reject Cebulko's proposal to add another requirement surrounding NPAs.

Finally, I respond to McGuire's recommendation that the Commission require PSE to provide annual reporting on average connection times for new service requests associated with new construction of single family and multi-family housing.[5] In my rebuttal testimony, I discuss how new service request timelines are dictated by numerous variables, including customer construction and jurisdictional permitting timelines, and that providing a new metric on average

[3] Exh. BTC-1T at 81:10-91:10.
[4] H.R. 1589, 68th Leg., 2024 Reg. Sess. (Wa. 2024).
[5] Exh. CRM 1Tr at 16:17-19:20.

utility connection time would provide limited insight as external factors such as permitting and developer actions have a greater impact on service connection timelines and readiness for occupancy than PSE's work.

II. PSE'S PROPOSED GAS PLANT CAPITAL EXPENDITURES IN THE MULTIYEAR RATE PLAN ARE CONSISTENT WITH COMMISSION ORDERS AND CURRENT FEDERAL AND STATE LAW AND REGULATION

Q. Do you agree with Cebulko that PSE's gas plant capital expenditures are not aligned with customer and public interests and achieving state policies?[6]

A. I disagree with Cebulko. As I explain in more detail below, over 90 percent of PSE's gas plant capital expenditures proposed in the multiyear rate plan are non-discretionary and consistent with federal and state requirements under which natural gas service is provided to customers. In addition, planned investments are consistent with Commission direction, including Commission policy on accelerated replacement of pipeline facilities with elevated risk in Docket UG-120715 and PSE's 2023 Pipeline Replacement Program approved in Docket PG-230419.

[6] Exh. BTC-1T at 71:11-77:13.

Q. What are PSE's expected gas plant capital expenditures during the multiyear rate plan?

A. Table 5 from my prefiled direct testimony, Exh. DJL-1Tr, as included below, summarizes the different investment categories, the anticipated capital investment, and the primary benefits of these programs.

Table 5: Expected gas capital expenditures from 2025-26, by category.

Exhibit	Investment Category	Example Programs	Capital Investment ($ Millions)	Primary Benefits
Customer and Public Safety	Emergency Repair	• Emergent Repairs	56.6	• Customer satisfaction • Operations safety
	Gas Maintenance	• Distribution Integrity Management • PRP • Enhanced methane emissions reduction	207.2	• Increased safety • Risk mitigation
	Public Improvement	• Relocations • Franchises	62.4	• Risk mitigation
Customer Growth and Service Needs	Customer Requests	• Customer requests	52.1	• Customer satisfaction
Pipeline Reliability and Monitoring	Pipeline Digital Monitoring	• Pipeline Digital Monitoring	5.4	• Reliability and safety by reducing response time
	Pipeline System Reliability	• Pipeline System Reliability	29.7	• Reduction in customer outages
	Alternative Fuels Readiness	• Alternate Fuels Readiness	3.0	• Learning and developing efficient transformation of the pipeline system

Q. What does it mean that work is non-discretionary?

A. As I explain in my prefiled direct testimony,[7] non-discretionary investments are dictated by law or driven by requirements relative to timing and/or scope outside of PSE's direct control. For example, PSE's Customer and Public Safety investments are non-discretionary because PSE is mandated by law to address

[7] Exh. DJL-1Tr at 17:1-14.

gas system issues that present an elevated risk in a timely manner. PSE is also required to avoid interference with public improvement projects by relocating facilities, such as to enable a roadway expansion, on a timeline dictated by the public project.

Non-discretionary investments consist of both planned and unplanned work:

- **Planned non-discretionary investments** are work that must be completed but require an adequate timeline for the work to be designed and permitted under standard permitting procedures. For example, gas maintenance programs and projects that mitigate risks identified by the Distribution Integrity Management Program ("DIMP") and the Transmission Integrity Management Program ("TIMP") are sometimes developed two to three years in advance of the required construction date to provide sufficient time for design and permitting. Public improvement projects, while planned in advance, are implemented on a timeline determined by the larger public project.

- **Unplanned non-discretionary investments** consist primarily of emergency repair and/or replacement of failed equipment or third-party damage to the pipeline system. This work is performed as quickly as possible following established procedures for repairs.

Over 90 percent of PSE's planned gas plant capital expenditures are non-discretionary. Thus, Cebulko's suggestion that PSE's proposed expenditures are

not in alignment with state policy is incorrect. In fact, the opposite is true. In addition, the remaining small percentage of planned discretionary work will reduce O&M and is necessary for improved operational efficiency and assurance of service reliability to existing customers.

A. PSE's Customer and Public Safety Investments are Non-Discretionary and Essential for Safe Operation of Gas Infrastructure

Q. Please summarize PSE's Customer and Public Safety investments.

A. As discussed in Exh. DJL-3r, PSE's Customer and Public Safety investments are non-discretionary investments to maintain the safety of PSE's gas infrastructure. They are divided into three categories:

- Emergency repair;
- Gas maintenance;
- Public improvement.

Q. What are PSE's obligations under Commission requirements and/or state law regarding the safety of its gas infrastructure?

A. As a Gas Company defined by RCW 80.04.010, PSE is required to comply with minimum federal safety standards for transportation of natural and other gas by pipeline set forth in 49 CFR 192 and to follow state codes for operations and safety under Chapter 480-90 WAC and Chapter 480-93 WAC. The three categories of non-discretionary Customer and Public Safety gas expenditures, and specific requirements by which they are mandated, are described below.

Q. Please explain briefly what emergency repair expenditures are.

A. PSE is required by 49 CFR 192.615 to establish procedures to minimize the hazard resulting from a gas pipeline emergency and to provide for prompt and effective response. WAC 480-93-180 requires PSE to have and follow a gas pipeline plan and procedure manual for operation, maintenance, inspection, and emergency response activities. Accordingly, PSE's emergency repair expenditures (sometimes called "corrective maintenance") are unplanned non-discretionary work and include the repair and/or replacement of failed or compromised infrastructure to address immediate and imminent safety concerns. Emergency repairs are the highest priority for PSE and take priority over other non-discretionary work and discretionary work. Examples of emergency repair expenditures include responding to over 20,000 gas odor calls annually and repairing approximately 1,000 hazardous leaks to its infrastructure annually. Please see Exh. DJL-3r, Section I.C., for more information on these investments. Cebulko acknowledges the importance of this work emphasizing that "[a] safe gas system is paramount."[8]

Q. Please explain briefly what gas maintenance expenditures are.

A. PSE's gas maintenance investments are planned and implemented as required by TIMP requirements outlined in 49 CFR 192, Subpart O, and the DIMP requirements outlined in 49 CFR 192, Subpart P. Additionally, PSE's Enhanced

[8] Exh. BTC-1T at 90:4.

Methane Emission reduction program is mandated by the Protecting Our Infrastructure of Pipelines and Enhancing Safety Act of 2020 ("PIPES Act of 2020").[9] PSE's gas maintenance programs are non-discretionary work focusing on identifying pipeline safety risk and integrity management concerns in PSE's existing gas infrastructure and implementing proactive measures to reduce overall system risk and meet regulatory requirements related to pipeline safety. The purpose of these expenditures is to prevent, where possible, the occurrence of emergent safety issues that require emergency repair. The programs include planned maintenance and proactive repair and/or replacement of higher risk infrastructure.

Q. What programs make up the proposed gas maintenance expenditures?

A. There are currently seven gas maintenance programs for which required investments are planned under this multiyear rate plan. Four gas maintenance programs are part of PSE's current Pipeline Replacement Plan ("PRP") filed on June 1, 2023, and approved by the Commission on August 10, 2023,[10] in accordance with the Commission's Policy Statement on Accelerated Replacement of Pipeline Facilities with Elevated Risk.[11] Two gas maintenance programs fulfill requirements of the U.S. Department of Transportation Pipeline

[9] Protecting Our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2020, https://www.phmsa.dot.gov/legislative-mandates/pipes-act-2020-overview.

[10] *In the Matter of Puget Sound Energy's 2023 Pipe Replacement Program Plan*, Docket PG-230419, Order 01 (Aug. 10, 2023).

[11] *In the Matter of the Policy of Washington Utilities and Transportation Commission Related to Replacing Pipeline Facilities with an Elevated Risk of Failure*, Docket UG-120715, Commission Policy on Accelerated Replacement of Pipeline Facilities with Elevated Risk (Dec. 31, 2012).

and Hazardous Materials Safety Administration (PHMSA) for gas distribution pipeline operators to implement a DIMP[12] and for gas transmission pipeline operators to implement a TIMP.[13] The final gas maintenance program is focused on reducing methane emissions and meeting requirements of the PIPES Act of 2020.[14] Investments made under these gas maintenance programs are non-discretionary given that PSE is required to mitigate elevated risks identified by these mandated programs. Detailed descriptions of pipeline investments to be made under each of these seven programs have been provided in Exh. DJL-3r and its Appendices J through O.

Q. Please explain briefly what public improvement expenditures are.

A. Public improvement expenditures are non-discretionary investments in response to requirements to relocate PSE natural gas facilities. PSE constructs, operates, maintains, and repairs its natural gas delivery system under franchise agreements with 85 jurisdictions across its natural gas service territory. As provided by law[15] and per conditions set forth in these agreements, PSE is required to protect, support, temporarily disconnect, relocate, or remove its facilities from the right-of-way to facilitate completion of a public project or to resolve a jurisdiction-declared emergency impairing the right-of-way or use thereof. Projects involve the relocation of PSE gas mains and facilities to accommodate jurisdictional road

[12] 49 CFR 192.1005.
[13] 49 CFR 192.907.
[14] Protecting Our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2020, https://www.phmsa.dot.gov/legislative-mandates/pipes-act-2020-overview.
[15] *See, e.g.*, RCW 36.55.060 ("The facilities of the holder of any such franchise shall be removed at the expense of the holder thereof.").

and utility improvements (e.g., water, sewer, and storm), public transportation projects, fish passage improvements, and Sound Transit Projects. The Infrastructure Investment and Jobs Act[16] is a source of funding for jurisdictional infrastructure projects and is anticipated to contribute to continued steady public improvement activity affecting PSE's gas facilities during the multiyear rate plan.

Jurisdictional capital projects typically follow a multi-year process. Projects are usually identified in the jurisdictions' planning process (e.g., five-year plan) with jurisdictions pursuing initial permitting and design processes. PSE will work with jurisdictions on preliminary designs to help reduce impacts to PSE's facilities and make the jurisdiction aware of potential challenges PSE may face in relocating the facilities. Depending on jurisdictional budgeting priorities, projects may be advanced or delayed from their original schedule. Once the jurisdiction awards a bid to their selected contractor for the improvement, PSE works with the jurisdiction and contractor to coordinate construction activities.

This work is non-discretionary and must be completed on a timeline established by the jurisdiction per the terms of a franchise agreement with PSE.

Q. Does Cebulko address any of the Customer and Public Safety expenditures?

A. Yes. Cebulko addresses an increase in "gas maintenance" costs, which I address later in my rebuttal testimony. Also, Cebulko misstates the status of PSE's

[16] H.R. 3684, 117th Cong. (2021).

DuPont Aldyl "HD" pipe replacement program. Cebulko states that over the next 20 years, PSE plans to replace 435 miles of pipe.[17] This is incorrect. PSE's Older Vintage PE Pipe Mitigation program is currently in year twelve of its 20-year commitment to the Washington Utilities and Transportation Commission to remediate all DuPont Aldyl "HD" pipe with an elevated risk of high consequence fusion failure and brittle-like cracking.[18] Only 190 miles, approximately 1.5 percent of PSE's existing 13,100.7 miles of distribution system mains, remain to be replaced under this program by year-end 2032.[19] There are not 435 miles to be remediated, as Cebulko states incorrectly.

B. PSE's Customer Growth and Service Needs Expenditures are Implemented at the Request of Customers and are Non-Discretionary

Q. Please explain briefly what Customer Growth and Service Needs expenditures are.

A. As discussed in Exh. DJL-4, Customer Growth and Service Needs expenditures address requests for new service connections to homes and business. In response to customers requesting new or modified services, PSE installs new or upgraded service lines to the requested homes and building locations. In some cases, the existing gas mains are extended or upgraded as required to accommodate the specific request for additional load. PSE has historically recovered a portion of

[17] Exh. BTC-1T at 73:8.

[18] *See In the Matter of Puget Sound Energy's 2023 Pipeline Replacement Program Plan*, Docket PG-230419, Order 01 ¶ 7 (Aug. 10, 2023) (approving PSE's 2023 Pipe Replacement Program Plan, including replacement of DuPont Aldyl "HD" pipe, which work started in 2013).

[19] *See id.*; Exh. DJL-11.

these costs through rates, determined by a margin allowance based on revenues expected from the new service. Margin allowances have been reduced and will be fully eliminated January 1, 2025, per PSE's 2022 General Rate Case Settlement Stipulation and Agreement.[20] At that time, customers will be responsible for the full cost of requests for new and modified gas services.

Q. Is this work non-discretionary?

A. Yes, it is. Under RCW 80.28.110, PSE is obligated to, upon reasonable notice, furnish to all persons and corporations who may apply therefor and be reasonably entitled thereto, suitable facilities for furnishing all available gas as demanded.

C. PSE's Pipeline Reliability and Monitoring Expenditures Maintain Reliable Service to Existing Customers, Improve Operational Efficiency and Readiness, and Address Pipeline Security Concerns

Q. Please explain briefly what Pipeline Reliability and Monitoring expenditures are.

A. PSE's Pipeline Reliability and Monitoring expenditures are described in detail in Exh. DJL-6. They are divided into three categories:

- Pipeline digital monitoring;
- Pipeline system reliability;
- Alternate fuels readiness.

[20] *WUTC v. PSE*, Dockets UE-220066/UG-220067 et al., Final Order 24/10 at 17-18, ¶¶ 285-90 (Dec. 22, 2022).

Q. Please explain briefly what pipeline digital monitoring expenditures are.

A. The core objective of the pipeline digital monitoring program is to modernize PSE's monitoring and response tools to provide faster identification of issues, provide real time monitoring and response, and allow for replacement of antiquated monitoring equipment. A portion of the pipeline digital monitoring expenditures also supports compliance with Transportation Security Administration ("TSA") cyber security requirements.

Q. Are pipeline digital monitoring expenditures discretionary or non-discretionary?

A. Both. As discussed below, Remote Terminal Unit ("RTU") replacements under this program are non-discretionary, while replacement of paper chart recorders with electronic devices is a discretionary cost-savings measure:

- **Non-discretionary pipeline digital monitoring expenditures.** As a result of the Colonial Pipeline Ransomware incident in 2021, a TSA directive requires pipeline companies to implement mitigation measures to protect against cyberattacks, to develop a cybersecurity contingency and recovery plan, and to conduct a cybersecurity architecture design review.[21] During a review of PSE's systems and equipment, it was determined that PSE's RTU legacy monitoring equipment needed to be

[21] Security Directive (SD) Pipeline-2021-02E: Pipeline Cybersecurity Mitigation Actions, Contingency Planning, and Testing and Memo (tsa.gov), https://www.tsa.gov/sites/default/files/tsa-security-directive-pipeline-2021-02e-and-memo-508c.pdf.

replaced to comply with TSA requirements.[22] PSE submitted a mitigation plan for replacing this equipment to TSA on October 25, 2022. It was approved on December 5, 2022, and must be fully implemented by 2036.[23]

- **Discretionary pipeline digital monitoring expenditures.** PSE has been programmatically upgrading paper gauge charts with electronic recording units since 2017, with 65 of 138 units replaced through 2024 and upgrades planned to continue in this multiyear rate plan. These expenditures have been approved in prior rate cases. As discussed in Exh. DJL-6, Section I.C., these upgrades will provide operational efficiency improvements by eliminating the need for personnel to manually retrieve and replace chart papers every one to two weeks, saving more than 300 site visits per year. Digital collection of the information in real time will improve situational awareness of operators and eliminate labor needed to manually transfer information from paper charts to spreadsheets or databases to perform analysis utilizing the data.

Q. Please explain briefly what pipeline system reliability expenditures are.

A. The Pipeline System Reliability program discussed in Exh. DJL-6 focuses on reinforcements required to meet existing customer demand on a peak hour design

[22] Security Directive (SD) Pipeline-2021-02E: Pipeline Cybersecurity Mitigation Actions, Contingency Planning, and Testing and Memo (tsa.gov), https://www.tsa.gov/sites/default/files/tsa-security-directive-pipeline-2021-02e-and-memo-508c.pdf.

[23] Exh. DJL-20C.

day. These reinforcements consist of system looping, regulator and gate station right sizing, and specific area reinforcements to address past growth. In total, there are eight projects in the multiyear rate plan that comprise 5.3 miles of system reinforcement.

Q. Why are reliability expenditures necessary when PSE's gas loads are forecasted to decrease?

A. While load forecasts predict a decline in overall energy to be delivered by the natural gas distribution system on an annual basis, peak loads on the gas delivery system have continued to increase on the coldest days of the year when customers are dependent the most on natural gas for space heating and other needs.

During the morning hours of December 22, 2022, PSE set an all-time system peak demand of 171.82 MMSCF.[24] This was subsequently surpassed on January 12, 2024, when the system peak record was increased to 180.11 MMSCF. Increasingly larger amounts of total daily energy delivered by the natural gas system were also observed on these days, reaching 911,195 Dth[25] on December 22, 2022, and 973,749 Dth on January 12, 2024.

System reliability investments proposed in this multiyear rate plan address the highest priority service reliability risks that manifest during these peak load

[24] MMSCF = Million standard cubic feet measured over a four-hour period. Weekday peak is measured from 4:00 a.m.-8:00 a.m. with the weekend and holiday peak measured from 5:00 a.m.-9:00 a.m.

[25] Dth = dekatherm or 10 therms.

conditions. Proposed capital investments that address these pipeline capacity constraints will reduce the risk of service interruptions to customers and improve operational efficiency by reducing the need for manual field interventions to maintain gas delivery system pressures that provide continuous service to customers during peak load periods.

Q. How will reliability investments reduce service reliability risks?

A. PSE currently has constraints on 13 areas of the gas Delivery System that require manual interventions, known as cold weather action ("CWA"), to provide continuous uninterrupted service to firm natural gas service customers. CWA consists of real-time adjustments to field equipment by on-site personnel or injection of supplemental gas, delivered by truck and trailer, into capacity constrained locations of the Delivery System to maintain service to customers. The Pipeline System Reliability program addresses current pipeline constraints to reduce risking loss of service to customers during peak load conditions and so operational demands do not exceed capacity of available qualified personnel to implement CWA. For example, should inclement weather create conditions such as icy roadways that prevent an injection truck from arriving at a CWA location on time, or operational requirements exceed capacity of available qualified personnel to perform manual adjustments of the Delivery System, customers will be placed at high risk of losing gas service at a time of greatest system need for space heating. Reliability investments for 2025-2026 will reduce the customer

outage risk by 5,550 customers per system peak occurrence as discussed in Exh. DJL-6.

Q. How will reliability investments enable PSE to manage O&M costs associated with the natural gas system?

A. Performing pipeline reliability investments reduces the need for additional labor to implement CWAs. PSE controls O&M costs by proactively managing staffing levels and balancing the workforce and training programs to meet year-round operating requirements. This places a limit on the quantity of qualified personnel available to implement CWAs on peak load days. If the ability to cover all peak system loads via CWAs is exhausted, PSE will be forced to intentionally isolate and shut off portions of the gas system as peak demand approaches. Implementation of selected system reinforcements in locations of greatest reliability risk supports effective management of O&M costs by reducing staffing and training needs, while simultaneously avoiding service risks to existing firm service natural gas customers.[26]

Q. Are pipeline system reliability expenditures discretionary or non-discretionary?

A. Pipeline system reliability expenditures reinforce the pipeline system so that PSE can satisfy its obligation to serve customers. That is a non-discretionary obligation. As indicated previously, system reliability expenditures are

[26] Exh. DJL-6 at 2:12-18.

thoughtfully planned and implemented on an as-needed basis, when CWAs are no longer feasible or cost-effective. The timing of when pipeline system reliability expenditures are made to reduce the burden of CWAs is discretionary. The proposed investment of $27.9 million in system reliability projects makes up only seven percent of planned gas system investments during the multiyear rate plan, and PSE highly scrutinizes and limits investments that reinforce delivery capabilities of the existing natural gas system. These investments in locations of greatest need bring assurance that PSE can provide energy to all firm service customers on the coldest of days and reduce risk of outages, public safety hazards, and worker safety concerns. Unlike electric outages that can be restored without a site visit into every home and business impacted by the service disruption, gas outage restorations can become a lengthy and costly processes in which technicians must be dispatched to first turn off all service meters, and subsequently make a second visit to each location to turn on the meter and relight the customer's equipment once pressure has been safely returned to the distribution system. PSE's investments in pipeline reinforcement where significant capacity constraints exist will reduce risks to service and public safety.

Q. Please explain briefly what alternate fuels readiness expenditures are.

A. Alternate fuels readiness expenditures support pilot and demonstration projects essential for PSE to keep pace in its awareness of low-carbon fuel technologies, including renewable natural gas ("RNG") and hydrogen, and to inform gas

system investment decisions such that pipeline infrastructure may be compatible with future energy resources that may be delivered by PSE's pipeline infrastructure. In this multiyear rate plan, the Alternate Fuels Readiness program will place into service a small one-megawatt hydrogen electrolyzer to evaluate use of natural gas-hydrogen blends in fueling existing electrical generation plants for reduced carbon emissions and to produce hydrogen for delivery system pipeline blending evaluations. Additionally, during this rate period, it is planned that the Alternate Fuels Readiness program will pursue development of a pilot project utilizing hydrogen pyrolysis technology to serve industrial customers and increase awareness of opportunities for decarbonizing loads that are difficult to electrify. In addition to these pilot projects, PSE will continue to participate in industry forums, such as the U.S. Department of Energy sponsored HyBlend,[27] Western Energy Institute and American Gas Association hydrogen discussion groups, and international forums like the HyReady Consortium,[28] to maintain current knowledge of advancing technologies.

Q. Are alternate fuels readiness expenditures discretionary or non-discretionary?

A. Discretionary. The focused and limited expenditures of the Alternate Fuels Readiness program are scaled within the multiyear rate plan to be sufficient to

[27] U.S. Department of Energy, HyBlend: Opportunities for Hydrogen Blending in Natural Gas Pipelines, https://www.energy.gov/eere/fuelcells/hyblend-opportunities-hydrogen-blending-natural-gas-pipelines (last visited Sept. 15, 2024).

[28] DNV, HyRead Joint Industry Project, https://www.dnv.com/article/hyready-219355/ (last visited Sept 15, 2024).

continue advancing PSE's working knowledge of lower carbon pipeline energy resources while avoiding over-investment in new technology for which applications are still being evaluated. Washington is expected to have a strong demand for green electrolytic hydrogen as part of a net zero economy.[29] Therefore, it is important to operate programs that advance operational understanding of alternate fuels, as PSE's energy delivery system may play a role in supporting utilization of this resource among difficult-to-decarbonize end-use sectors.

Q. What is your response to Cebulko's recommendation that the Alternate Fuels Readiness program be eliminated?[30]

A. The Commission should disregard Cebulko's recommendation. Cebulko's claim that alternate fuels cannot scale to substantially meet PSE's emissions reduction goals and that PSE provided limited testimony describing the program and how it can be scaled to a meaningful solution for decarbonizing the gas utility is simply incorrect, as I explain below.

[29] Washington State Department of Commerce, Green Electrolytic Hydrogen and Renewable Fuels: Recommendations for Deployment in Washington (2024), https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=Commerce%20Reports%20-%20Green%20Electrolytic%20Hydrogen%20Report%20final_74ae22a7-9a2b-4c27-b836-a576cce9bbb8.pdf.

[30] Exh. BTC-1T at 62:14.

Q. Cebulko states that nowhere does PSE describe objectives of the Alternate Fuels Readiness program.[31] Has PSE described the objectives of its Alternate Fuels Readiness program?

A. Yes. Core objectives and priorities of the Alternate Fuels Readiness program are described in detail in Exh. DJL-6, Section I.E., with a business plan for the program included as Appendix C to the testimony. This business plan describes the objective of the program, its demonstrations, and pilots to serve the purpose of evaluating:

- Safety for customers, workers and (delivery) system;
- Operational compatibility of components of the system;
- Workforce preparedness to operate the system;
- Appropriate tools to maintain the system;
- Customer preparedness;
- Impacts of blended fuels on longer range system plans;
- Alternate fuels obstacle reduction;
- Understanding and impacts of emerging technologies.

[31] Exh. BTC-1T at 33:14.

Q. Cebulko states that nowhere does PSE describe how it will implement the Alternate Fuels Readiness programs.[32] Has PSE provided details on how it will implement Alternate Fuels Readiness programs during this multiyear rate plan?

A. Yes. As noted above, the business plan for the Alternate Fuels Readiness program is provided in Appendix C of Exh. DJL-6, and indicates one to three projects will be implemented during the multiyear rate plan. The plan does not identify which projects will be implemented because the projects had not been fully developed at time of case filing. PSE has since provided specific details on projects that will be implemented during the multiyear rate plan in its response to JEA Data Request No. 027,[33] in which PSE provides information on the following planned projects:

- A small one-megawatt green hydrogen electrolyzer pilot installation at PSE's Fredrickson generation facility to support evaluation of the impact of natural gas-hydrogen fuel blends on the generation fleet, including impact to air quality and operational requirements, and to assess fuel blending considerations for PSE's natural gas customers.
- Evaluation of hydrogen production through pyrolysis at one of PSE's industrial customer sites.

[32] Exh. BTC-1T at 33:14.
[33] Exh. DJL-12.

In addition to these specific projects, PSE will be continuing high level planning and research on hydrogen blending during the multiyear rate plan, including scoping a potential customer-facing pilot.

Q. Cebulko states that PSE does not explain the role and benefit of hydrogen blending in the gas distribution system or explain how hydrogen can scale as a gas blending technology, or what tests it will conduct for its hydrogen blending.[34] Is that correct?

A. No. As noted above, Appendix C of Exh. DJL-6 describes the Alternate Fuels Readiness program and why PSE is investing in it. Cebulko's suggestion that PSE should not be investing in the program because certain aspects of hydrogen blending remain uncertain,[35] is nonsensical. Indeed, a key purpose of the program is to better understand hydrogen blending, including scaling and appropriate testing of the technology. The potential of hydrogen blending to support decarbonization efforts is being explored through multiple state and federal initiatives. The U.S. Department of Energy and the National Renewable Energy Laboratory discuss blending at low levels (20 percent by volume) in their reports "Pathways to Commercial Liftoff: Clean Hydrogen"[36] and "Hydrogen

[34] Exh. BTC-1T at 33:20.
[35] Exh. BTC-1T at 30:3.
[36] U.S. Department of Energy, Pathways to Commercial Liftoff: Clean Hydrogen (2023), https://liftoff.energy.gov/wp-content/uploads/2023/03/20230320-Liftoff-Clean-H2-vPUB.pdf.

Blending as a Pathway toward U.S. Decarbonization,"[37] highlighting the potential of blending as an enabler of the hydrogen market.

PSE's Alternate Fuels Readiness program aims to determine the extent to which PSE can accommodate hydrogen should it become a viable, least-cost resource through the ISP process. During this rate plan period, PSE will utilize an electric generation facility to identify measurement requirements, odorization needs, and other factors related to blending. These insights will inform strategies that support both blending and industrial decarbonization. Furthermore, PSE will continue to conduct high-level planning and research on hydrogen blending, including exploring a potential customer-facing pilot and assessing integrity risks.

As stated in PSE's Response to JEA Data Request No. 042,[38] "PSE's pipeline system must continue to safely and reliably meet the needs of customers who choose natural gas as an energy resource. The Alternative Fuels Readiness program will help ensure that necessary investments in the pipeline system are made in a way that supports the delivery of lower-carbon resources in the future."

[37] NREL, Hydrogen Blending as a Pathway Toward U.S. Decarbonization, Jan. 24, 2023, https://www.nrel.gov/news/program/2023/hydrogen-blending-as-a-pathway-toward-u.s.-decarbonization.html.

[38] Exh. DJL-13.

Q. Does PSE believe alternate fuels can be part of a meaningful solution for decarbonizing the gas utility?

A. Yes. PSE believes that both RNG and hydrogen have a place in decarbonizing the energy supply of Washington, and PSE believes it has the responsibility to fully evaluate whether these resources could support customers in energy end-use transformation. Indeed, this work is entirely consistent with the decarbonization "paradigm" Cebulko emphasizes in his testimony. As acknowledged in Cebulko's testimony "hydrogen is expected to be in high demand from other industries that are harder to decarbonize, some of which have few ready alternatives, in contrast with the residential and commercial heating customers. Examples include steel production, fertilizer and ammonia production, long-haul transportation, and fuel for the maritime and aviation industries."[39] The existing pipeline infrastructure may prove to be a cost-effective mechanism of delivering lower carbon fuels to industrial customers currently served by natural gas.

Additionally, PSE has a track record of delivering lower carbon fuels with its pipeline system, and has been blending RNG into its Delivery System since 2009, and is currently in conversations with customers regarding new RNG connections to the system. Efforts to make the connection process easier, and to further understand the roles of hydrogen in reducing carbon, bring value to the

[39] Exh. BTC-1T at 39:9-13.

region, whether it be through decarbonizing the gas utility or supporting the success of customers in reducing their carbon footprints.

Q. Should the Commission reject Cebulko's recommendations regarding the Alternate Fuels Readiness program?

A. Yes, it should, for the reasons explained above.

III. PSE'S PLANNED GAS PLANT CAPITAL EXPENDITURES IN THE MULTIYEAR RATE PLAN ARE PRUDENT

Q. Does Cebulko or any party assert that any of the proposed investments in the natural gas Delivery System described above in the multiyear rate plan are not prudent or should be rejected by the Commission?

A. No, except for Cebulko's complaints regarding the Alternate Fuels Readiness program, no parties have asserted that any planned investments in the natural gas Delivery System during the multiyear rate plan are not prudent or should be rejected by the Commission. Cebulko's testimony is entirely focused on PSE's projected natural gas expenditures beyond the multiyear rate plan and outside the scope of this case. He does not identify any imprudent expenditures in the gas Delivery System during this rate plan. No other party filed testimony addressing PSE's planned gas expenditures. Notably, planned investments in the Alternate Fuels Readiness program are to be at PSE facilities or specific customer locations and will not apply broadly to the Delivery System during this multiyear rate plan.

Q. Do you agree with Cebulko's claim that PSE's planned natural gas expenditures are inconsistent with the natural gas "paradigm" in Washington?[40]

A. No. As I explain above, over 90 percent of PSE's natural gas expenditures planned in the multiyear rate plan are "non-discretionary" as they are mandated by federal or state law or Commission order. Until the law or Commission direction changes, PSE must do this work. And PSE's limited amount of planned "discretionary" expenditures are necessary to reduce system operating costs, maintain service reliability, and keep PSE apprised of advancement in clean fuel technologies that may be beneficial in addressing hard-to-electrify and hard-to-decarbonize industrial loads. PSE is committed to public safety and pipeline integrity and will continue to make investments to provide for the safe operation of the existing gas system in compliance with the law and Commission orders.

Q. Cebulko points to the Climate Commitment Act ("CCA")[41] and ESHB 1589[42] as evidence that PSE's planned gas expenditures are inconsistent with Washington law and policy. Do you agree?

A. No. Neither the CCA nor ESHB 1589 would have any impact on the planned gas capital expenditures proposed by PSE in the multiyear rate plan, nor does Cebulko identify any investments that contradict requirements of the CCA or

[40] Exh. BTC-1T at 77:5-6.
[41] Chapter 70A.65 RCW.
[42] H.R. 1589, 68th Leg., 2024 Reg. Sess. (Wa. 2024).

ESHB 1589. As discussed previously, planned investments to the gas Delivery System in the multiyear rate plan must be completed by PSE to maintain the ongoing safety of PSE's system or to respond to customer requests as currently required by law, or provide operational cost savings and address highest risks to service reliability in constrained areas of the gas Delivery System.

Q. Does the CCA address gas Delivery System capital expenditures?

A. No. The CCA does not specifically mention or provide guidelines around gas Delivery System capital expenditures. The CCA discusses the allocation and auction of no-cost allowances for natural gas utilities, electric utilities, and EITE (emissions-intensive trade-exposed) facilities, as well as the use of proceeds from auctioned allowances to benefit customers, particularly low-income customers. The purpose of the CCA is to reduce overall emissions, and its impact to investments in the gas Delivery System will materialize through changes in load forecasts that inform capital plans. The gas Delivery System capital expenditures presented in this case address existing needs for safety and reliability by current standards.

Q. Does ESHB 1589 address gas Delivery System capital expenditures?

A. No. ESHB 1589 also does not address gas Delivery System capital expenditures planned for the multiyear rate plan. ESBH 1589 requires PSE to file an ISP in January 2027 and the Commission has approved a petition from PSE to

consolidate reporting requirements for several planning processes into the ISP.[43] Preparation of the ISP will be a three-year process, starting with the Commission's rulemaking process, which will be completed by July 1, 2025.[44] Subject to outcomes of the rulemaking, as well as potential impacts of Initiative Measure No. 2066 to be voted on by Washington residents in November 2024, PSE will prepare a 10-year plan for gas system investments that are beyond those proposed in this multiyear rate plan. In PSE's future 2027 ISP, consistent with ESHB 1589, considerations will be made for alternatives to known and planned gas infrastructure projects, including non-pipeline alternatives, rebates and incentives, and geographically targeted electrification and demand response.

ESHB 1589 provides that gas plant installed prior to July 1, 2024, must be fully depreciated by 2050.[45] However, as Cebulko acknowledges, Washington law is silent on the depreciation of gas capital investments made after July 1, 2024,[46] which would include all gas capital investments proposed in this case.

Q. Does Cebulko acknowledge that PSE's proposed gas capital expenditure in the multiyear rate plan is lower than in past years?

A. Yes, Cebulko states that PSE's proposal in the multiyear rate plan is approximately 10 percent less than PSE's past seven years of historic spending.[47]

[43] *In the Matter of the Petition of Puget Sound Energy, For an Order Extending Filing and Reporting Requirements*, Dockets UE-240433/UG-240434, Order 01 (July 11, 2024).
[44] H.R. 1589, 68th Leg., 2024 Reg. Sess., § 3(2)(a) (Wa. 2024).
[45] *Id.* § 7(1).
[46] Exh. BTC-1T at 78:4-5.
[47] Exh. BTC-1T at 74:11-12.

As Cebulko notes, this is largely due to a reduction in customer request spending as margin allowances have been reduced and will be fully eliminated January 1, 2025, with customers responsible for the full cost of requests for new and modified gas services.[48]

Q. Cebulko observes that PSE's planned spend in the multiyear rate plan anticipates an increase in "gas maintenance" expenditures.[49] Why does PSE anticipate an increase?

A. The increase in "gas maintenance" expenditures is mostly driven by investments required for PSE to fulfill its obligation under the PRP Master Plan to replace, by year-end 2032, DuPont Aldyl "HD" plastic pipe identified to have an elevated risk of high consequence fusion failure and brittle-like cracking. As indicated in Exh. DJL-1Tr, Figure 4, to remain on track for completion by 2032, the rate of replacement must increase from 19 miles to 24 miles per year within the period of this multiyear rate plan. Other drivers for the increase include addressing newly identified risk in the No Record Facilities Program, costs for federal transmission "Mega Rule"[50] compliance, and other program changes based on annual DIMP program effectiveness review.

[48] See PSE Gas Rule 6, Section 6, Margin Allowance – https://www.pse.com/-/media/Project/PSE/Portal/Rate-documents/Gas2/gas_rule_06_line.pdf?rev=d1b9c3ee109a4d2c8f53e1079951df90&sc_lang=en.

[49] Exh. BTC-1T at 74:13-15.

[50] U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments, RIN 1 Overview, https://www.phmsa.dot.gov/rulemaking-implementation/rin-1/safety-gas-transmission-pipelines-maop-reconfirmation-expansion-of-assessment-requirements-and-other-related-amendments-RIN1-overview (last updated Aug. 6, 2024).

Q. Cebulko expresses concern over PSE's projected gas capital expenditures beyond the multiyear rate plan because he believes PSE should be reducing its spending on gas capital expenditures.[51] Do you agree?

A. Cebulko is referencing projections PSE has made outside of the context of the investments proposed in this case, specifically in PSE's Decarbonization Study filed in Docket UE-220066 et al. As PSE explained previously in response to JEA Data Request No. 51,[52] Cebulko conflates the Decarbonization Study and the expenditures proposed in this case. Please reference the Prefiled Rebuttal Testimony of Phillip J. Popoff, Exh. PJP-1T, that responds to Cebulko's claims regarding the Decarbonization Study, including addressing the intended purpose of the Decarbonization Study and that the study does not identify an optimal decarbonization pathway. As explained above, PSE's planned gas Delivery System capital expenditures in this rate plan reflect its estimates for what it will cost to maintain a safe and reliable gas system based on PSE's current obligation to serve gas customers. Until the law changes or PSE is directed by the Commission, PSE must continue to make expenditures to maintain the safety and reliability of the system as previously detailed in this testimony.

[51] Exh. BTC-1T at 76:14-77:13.
[52] Exh. DJL-14.

Q. Cebulko states that continued investment in the gas system will likely result in stranded assets.[53] Do you agree?

A. PSE takes seriously concerns regarding stranded assets and only makes gas capital investments if they are necessary to meet PSE's obligation to serve gas customers. However, until PSE's obligation to serve gas customers changes, it must continue to make expenditures to maintain the safety and reliability of the system. Regardless, given that no party, including Cebulko, challenges any of the gas Delivery System investments in this case, this is an issue beyond the scope of this case and is probably better addressed in another proceeding.

Q. Cebulko claims low-income customers will be disproportionately impacted in a stranded asset situation.[54] Do you agree?

A. Cebulko's concerns are speculative based on the state of PSE's obligation to serve gas customers today. Whether or not low-income customers could be disproportionately impacted by the future electrification of the gas system is speculative and beyond the scope of this case. However, PSE has always been committed to assisting its low-income customers and I am confident that would continue to occur in a future electrification scenario.

[53] Exh. BTC-1T at 78:1-14.
[54] Exh. BTC-1T at 78:15-79:11.

Q. Cebulko criticizes PSE for continuing to invest in its gas system "business as usual"[55] or "to spend on its gas delivery system in all scenarios."[56] Is he correct?

A. Regarding Cebulko's "business as usual" statement, I do not know what Cebulko means. As explained throughout this testimony, for the investments proposed in this case, PSE is investing only as necessary to meet its obligation to safely and reliably serve its gas customers. What I can say, however, is PSE is transitioning away from planning for future gas growth. Several projects identified previously to expand capacity of the gas Delivery System have been deferred indefinitely.[57] And, as discussed in this testimony, PSE has been utilizing NPAs in the form of CWAs to defer pipeline reinforcement projects. Furthermore, PSE intends to apply the Targeted Electrification Pilot proposed in this case as a NPA to the capacity constrained service area of Duvall.

Regarding Cebulko's suggestion that PSE is planning to "spend on its gas delivery system in all scenarios," investments beyond this multiyear rate plan will be determined using PSE's standard planning processes. This will be informed by PSE's obligations to serve gas customers, the status of the law and

[55] Exh. BTC-1T at 79:19.
[56] Exh. BTC-1T at 78:18-19.
[57] Examples of those projects can be seen in the 2021 and 2023 PSE Integrated Resource Plan ("IRP") filings where the Tolt Pipeline Project and the Sno-King Reinforcement projects were removed:
- 2021 PSE IRP Appendix M - https://www.pse.com/-/media/PDFs/IRP/2021/appendix/24-IRP21_AppM_031221.pdf?rev=cf2823e5705d49e4a6be7cd96e085344&modified=20220307202831&hash=8E2D3F1D723FE6268ECA768297E0751E.
- 2023 PSE IRP Appendix G - https://www.pse.com/-/media/PDFs/IRP/2023/gas/appendix/13_IRP23_AppG_Final.pdf?rev=96e35773e8b04a19bf780dbc59a32acd&modified=20230331213553&hash=92DAFD38FC373C565CD283F6D31474BF.

the outcomes of various policy decisions, PSE's development of its 2027 ISP, and development of a general electrification strategy as discussed in Popoff's rebuttal testimony, Exh. PJP-1T.

Q. Cebulko states that other state public utility commissions are re-examining the pace and scope of gas pipeline replacement plans.[58] Are these observations relevant to PSE's planned gas capital investments?

A. No. In reviewing the cases referenced by Cebulko, in each case, case parties challenged proposed gas plant investments by the companies. That is not the case here.

For example, in the Illinois Commerce Commission ("ICC") case referenced by Cebulko,[59] the ICC disallowed a portion of the company's proposed Safety Modernization Program ("SMP") investments because the company had failed to provide adequate justification in the record for the proposed spend.[60] The ICC paused further work on the SMP until the ICC could complete an evaluation of the SMP "through a separate SMP proceeding."[61] And while the ICC did order a "Future of Gas" proceeding, the purpose was to address various decarbonization

[58] Exh. BTC-1T at 80:6-81:9.
[59] *North Shore Gas Company and The Peoples Gas Light and Coke Company Proposed general increase in rates and revision to service classifications, riders, and terms and conditions of service*, Dockets 23-0068/23-0069, Order (Ill. Com. Comm'n Nov. 16, 2023).
[60] *Id.* at 29.
[61] *Id.* at 30.

issues generally, and did not include the SMP.[62] No party in this case has made any similar claims against PSE's proposed gas investments.

And while in the Washington Gas Light Company ("WGL")[63] case Cebulko references, the District of Columbia Public Service Commission did order WGL to submit a new pipeline replacement program, to address, in part, "the District's climate policies," it was also because the program lacked evidence that it "would increase safety and reliability while reducing GHG emissions," and because the program's "performance had not matched the originally proposed timeline."[64] The Commission emphasized "that pipe repairs continue to be necessary for controlling the active leaks occurring in the District[;] the Commission cannot allow the system to deteriorate unabated, even as the District undergoes its energy transition and a strategically focused pipe replacement program needs to be considered to avoid cascading leaks in the future by replacing aging, leak-prone high risk mains and services, thereby enhancing the safety, reliability and GHG emissions for the District residents until the plans for full electrification are solidified."[65] Again, no such claims have been made against PSE in this case.

[62] *Id.* at 121 ("A rate case is not the best place to address every proposal and issue raised by the parties in this docket, with the notable exception of the SMP project . . . The Commission defers the rest of the proposals . . . to be incorporated in a 'Future of Gas' proceeding.").

[63] Formal Case No. 1154, *In the Matter of Washington Gas Light Company's Application for Approval of ProjectPipes2 Plan*, and Formal Case No. 1175, *In the Matter of Washington Gas Light Company's Application for Approval of ProjectPipes3 Plan*, and Formal Case No. 1179, *In the Matter of the Investigation into Washington Gas Light Company's Strategically Targeted Pipe Replacement Plan*. Order No. 22003 (Pub. Serv. Comm'n of D.C. June 12, 2024).

[64] *Id.* ¶ 44.

[65] *Id.* ¶ 47.

The California example involving Pacific Gas & Electric and multiple other parties[66] is being watched closely by PSE. The final project report of this study, issued in June 2024, indicates "a number of policy and regulatory changes, along with higher levels of community and customer interest and support, will be necessary for targeted electrification and gas decommissioning to achieve the scale needed to provide significant reductions in gas system costs" and "the geographic scale for targeted electrification and gas decommissioning will be limited by gas utilities' pipeline replacement rate and by the feasibility of decommissioning sections of the gas system without negatively affecting reliability for remaining customers."[67] PSE intends to apply these lessons learned to inform development of NPAs as an alternative to pipeline replacement in the context of its 2027 ISP as required by ESHB 1589.

As discussed previously in this testimony, unlike the cases Cebulko references above, PSE's pipeline replacement program is targeted and focused on only replacing the highest risk DuPont Aldyl "HD" pipe with an elevated risk of high consequence fusion failure and brittle-like cracking, of which only 190 miles remain in PSE's intermediate pressure distribution system, making up approximately 1.5 percent of the system. Moreover, no party has challenged these expenditures as imprudent.

[66] Energy+Environmental Economics, 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-targeted-electrification-and-gas-decommissioning-shows-potential-for-cost-savings/.

[67] California Energy Commission, Energy Research and Development Division, Final Project Report, pp. iv, 2 (2024), https://www.energy.ca.gov/sites/default/files/2024-06/CEC-500-2024-073.pdf.

IV. THE COMMISSION SHOULD DISREGARD THE JOINT ENVIRONMENTAL ADVOCATES' ALTERNATIVES TO PIPELINE REPLACEMENT PROPOSAL

Q. Cebulko provides testimony regarding alternatives to pipeline replacement, such as pipeline repair, NPAs, and zonal electrification. Does PSE support the use of these options?

A. Yes. PSE is actively evaluating the use of NPAs such as energy efficiency, demand response, targeted electrification, and CWAs as alternatives to pipeline reinforcement where feasible.

For example, PSE developed cost-effective NPAs in its 2020-2021 Biennial Conservation Plan that included a Targeted Demand Side Management pilot.[68] In this case, PSE is proposing a pilot residential demand response and enhanced energy efficiency program offerings in the Duvall area. Continuing this effort, the proposed Targeted Electrification Pilot in this multiyear rate plan includes a focus on electrifying customer loads in the Duvall area to avoid the need to invest in gas pipeline reinforcements for service reliability in this constrained area.

Conversely, broad scale zonal electrification as an alternative to pipeline replacement is considerably more challenging than the application of NPAs to avoid pipeline reinforcement projects. The only way to retire a segment of

[68] *In the Matter of Puget Sound Energy's 2020-2029 Ten-Year Achievable Electric Conservation Potential and 2020-2021 Biennial Conservation Target Under RCW 19.285.040 and WAC 480-109-010*, Dockets UE-190905/UG-190913, Puget Sound Energy's 2020-2021 Biennial Conservation Plan.

pipeline in lieu of replacement is for all customers served by that pipeline to completely leave the natural gas system. To date, that has not been a viable alternative for the pipeline replacement projects of this multiyear rate plan due to challenges presented by all customers needing to agree to leave the gas system to enable a pipeline retirement. Cebulko indicates in his testimony that smaller projects with only a handful of required participants (one to five customers) are the most achievable.[69] PSE agrees and is currently pursuing electrification and retirement of pipeline facilities in such scenarios. However, to date, PSE has encountered limited interest by customers in converting away from natural gas service, even if the full cost of conversion is covered. PSE's approach is modeled after Pacific Gas and Electric's Alternative Energy Program,[70] and targets cost effective electrification in lieu of complicated construction where one to two customers are impacted and net positive savings are achieved in gas capital and O&M budgets.

[69] Exh. BTC-1T at 87:11-14.

[70] PG&E's Alternative Energy Program, PG&E Strategy to Retire Gas Infrastructure via Electrification, Sept. 15, 2021, https://gridworks.org/wp-content/uploads/2022/04/9.15.21_Gridworks_PGE-Alt-Energy_V4-2-2.pdf.

Q. What is your response to Cebulko's proposal to mandate alternatives analysis that evaluates NPAs and zonal electrification in lieu of pipeline replacement?

A. Alternatives analysis has always been a necessary component of PSE's decision-making process and it will continue to be a key part of PSE's process going forward.

However, I disagree with Cebulko's proposal as framed in his testimony. To date, NPAs have not proven to be a realistic alternative for most gas pipeline projects. This is particularly true for the planned pipeline replacement projects in this multiyear rate plan, as broad scale electrification initiatives requiring full participation by all customers in a location of need have yet to be successful at enabling retirement of substantial lengths of pipeline. PSE is monitoring progress of zonal electrification projects cited in Cebulko's testimony[71] and will draw upon learnings of these case studies, as well as from its own experience in planned targeted electrification pilots, to inform assessment of NPAs in its 2027 ISP as required by ESHB 1589. As utilities have yet to achieve success in motivating large populations served by pipelines with integrity risks to fully electrify, enabling timely pipeline retirement in lieu of replacement, a requirement to conduct an alternatives assessment for all pipeline replacement projects is premature.

[71] Exh. BTC-1T at 86:1-87:4.

Limitations currently surrounding alternatives to pipeline replacement are reflected in the materials referenced by Cebulko. In the Strategen NPA study[72] cited by Cebulko, the study states that it takes two to three years to recruit customers for conversion off of natural gas. In both this study and the Rocky Mountain Institute and National Grid[73] paper referenced by Cebulko, it is stated NPAs to pipeline replacement currently work best for smaller projects, such as at the end of a gas main line, as a single customer's refusal to participate could impede the deployment of an NPA solution for a given asset.

With more work needed to develop successful approaches for implementing broad scale pipeline replacement alternatives, PSE believes the appropriate timeline and venue for consideration and development of NPAs as an alternative to pipeline replacement will be in the context of its 2027 ISP as required by ESHB 1589. Implementing a separate process to determine a framework for an alternatives analysis as proposed by Cebulko is duplicative of the requirements in ESHB 1589.

[72] Strategen, Part 1 | Non-Pipeline Alternatives to Natural Gas Utility Infrastructure: An Examination of Existing Regulatory Approaches, A Strategen Consulting Report for Lawrence Berkeley National Laboratory (2023), https://www.strategen.com/strategen-blog/non-pipeline-alternatives-natural-gas-utility; Part 2 | Non-Pipeline Alternatives: A Regulatory Framework and a Case Study of Colorado, A Strategen Consulting Report for Lawrence Berkeley National Laboratory (2023), https://www.strategen.com/strategen-blog/non-pipeline-alternatives-framework.

[73] RMI and National Grid, Non-Pipeline Alternatives: Emerging Opportunities in Planning for U.S. Gas System Decarbonization, May 2024, https://www.nationalgridus.com/media/pdfs/other/CM9904-RMI_NG-May-2024.pdf.

Q. What does ESHB 1589 require regarding NPAs?

A. ESHB 1589 provides that as part of PSE's 2027 ISP, PSE must "assess nonpipeline alternatives, including geographically targeted electrification and demand response, as an alternative to replacing aging gas infrastructure or expanded gas capacity." The assessment must include:

- Identifying all known and planned gas infrastructure projects, including those without a fully defined scope or cost estimate, for at least the 10 years following the filing;
- Estimating programmatic expenses of maintaining that portion of the gas system for at least the 10 years following the filing; and
- Ranking all gas pipeline segments for their suitability for NPAs.[74]

Thus, ESHB 1589 already provides a framework and process for evaluating the feasibility of NPAs. Given the ongoing evaluation and assessment surrounding the feasibility of NPAs, the Commission should decline Cebulko's proposal in lieu of the Legislature's direction regarding NPAs in ESHB 1589.

Q. What additional challenges will PSE need to overcome for successful deployment of NPAs to reduce the need for gas plant capital investments?

A. In evaluating opportunities to reduce peak system load to avoid the need for pipeline reinforcement projects, PSE has found current demand response programs within the utility industry are not yet mature for addressing gas system

[74] H.R. 1589, 68th Leg., 2024 Reg. Sess., § 3(4)(m) (Wa. 2024).

loads. Instead, these programs are currently focused on providing electric system capacity benefits, primarily at the resource supply level. This is creating implementation challenges in deploying gas demand response, targeted geographically, to relieve constrained areas of the gas Delivery System. While PSE is engaged with industry partners and working closely with implementers of our successful electric demand response and virtual power plant programs to expand benefits to the gas delivery system, the industry will still require time to resolve operational issues before gas demand response is scalable as a broad non-pipeline alternative.

Q. Do you agree with Cebulko's suggestion that PSE is performing pipeline replacement where a pipeline repair should be done instead.[75]

A. No. First, I would note that Cebulko is not an engineer trained to evaluate or determine whether a pipeline repair or replacement is an appropriate means of resolving an identified integrity or safety concern. Second, in contrast, PSE personnel are trained and qualified according to PSE's Operator Qualification Program based on federal requirements, specifically ASME B31Q[76] task numbers 0201 and 0211, for inspecting, measuring, and characterizing mechanical damage to pipeline infrastructure. These Operator Qualifications are applicable to both steel and polyethylene facilities and PSE's Gas First Response personnel are qualified as necessary to facilitate field judgements on resolving

[75] Exh. BTC-1T at 82:11-83:3.
[76] Exh DJL-15.

emergent pipeline safety and integrity issues requiring an immediate resolution. A repair or replace determination is made as soon as practical, based on a visual inspection and the immediacy of the situation per PSE Gas Operating Standard 2425.1600, section 7.2.1.[77]

A primary determinant in the decision to repair or replace a segment of compromised pipe is the pipe material. On polyethylene pipelines, mechanical repairs to damaged segments of pipe are not an option, necessitating all damaged length of the pipe be replaced. This is dictated by PSE's Gas Operating Standard 2575.1800, section 3.2,[78] and stems from the concern that plastic pipe cannot be re-molded to form a repair in the field (like grinding or welding on steel pipe). Additionally, there are no commercially available repair fittings for plastic pipe. Conversely, on steel pipelines, replacements are the preferred mitigation method so the full extent of damage is completely removed, especially in the case of unseen micro-cracking emanating from a dent or gouge). For steel pipelines, although cutting out (i.e., replacing) is the preferable means of resolving a pipeline issue per PSE Gas Operating Standards 2575.1700, section 3.4,[79] and 2575.1710, section 5.1.1.[80] PSE data shows that damage on steel pipelines is being repaired more often than replaced. Tables 1 and 2 show the number of leak repairs made by repairing, replacing, or and retiring pipe in responding to leaks on mains, services, and aboveground equipment such as meters. The data is

[77] Exh. DJL-16C.
[78] Exh. DJL-17C.
[79] Exh. DJL-18C.
[80] Exh. DJL-19C.

presented for both hazardous and non-hazardous leaks and demonstrates PSE does not exhibit a bias toward either option in resolving safety and integrity concerns. Repairs due to excavation damage are excluded from the data, as recovery of cost for repairs made due to excavation damage is pursued through claims against parties who inflicted damage on PSE assets. The quantity of new pipeline placed into service as a result of emergent damage repairs is limited. When replacements are performed, the typical length of replacement is kept to a minimum (generally less than five feet of new pipe is installed).

Table 1. Quantity of Nonhazardous Leak Repairs by Repair Method Excluding Leaks Due to Excavation Damage (2019-2023 Totals)

		Plastic			Steel			Aboveground/ Meter		
YEAR	FACILITY	Repair*	Replace	Retire	Repair	Replace	Retire	Repair	Replace	Retire
2019-2023 Total	Main	41	132	9	657	86	24	-	-	-
	Service	96	165	16	186	66	46	-	-	-
	Meter	-	-	-	-	-	-	21	8	2

* includes tightening of plastic service tee caps

Table 2. Quantity of Hazardous Leak Repairs by Repair Method Excluding Leaks Due to Excavation Damage (2019-2023 Totals)

		Plastic			Steel			Aboveground/ Meter		
YEAR	FACILITY	Repair*	Replace	Retire	Repair	Replace	Retire	Repair	Replace	Retire
2019-2023 Total	Main	22	205	16	111	16	8	-	-	-
	Service	37	292	41	74	43	33	-	-	-
	Meter	-	-	-	-	-	-	259	94	89

* includes tightening of plastic service tee caps

Q. What is your reaction to Cebulko's suggestion that PSE could be incentivized to change how it classifies projects to avoid having to conduct an NPA analysis?[81]

A. Cebulko's assertion is baseless. As demonstrated in this rebuttal testimony, PSE has rigorous protocols for addressing pipeline safety, integrity and service reliability issues that have been developed in accordance with federal and state law and regulation to maintain safe, reliable operation of the gas Delivery System. In addressing a system need, if time allows and a reasonable NPA exists, PSE will pursue it. As PSE develops its first ISP, criteria for considering and evaluating NPAs will become more structured and PSE's targeted electrification pilot proposed in this case will further develop understanding of the ability to address constrained areas of the gas Delivery System with NPAs, which may reduce the need for future investments in system reinforcements for reliability. Cebulko's accusation that PSE would attempt to circumvent obligations by recharacterizing projects is entirely unsupported and PSE rejects his statement.

Q. Cebulko encourages PSE to "scale" programs like its targeted electrification pilot for the next case.[82] Do you agree?

A. Cebulko's support for the proposed Duvall targeted electrification pilot is acknowledged with a clarification that the program is planned as a four-year implementation with a need for 1,000 customers to electrify at an estimated cost

[81] Exh. BTC-1T at 90:10-15.
[82] Exh. BTC-1T at 92:14-15.

of $8 million, versus 500 customers at $4 million as stated in his testimony. To provide perspective on the scale and pace of electrification required to avoid a system reliability reinforcement project, the targeted electrification program for Duvall targets electrifying 16 percent of customers in the constrained gas service area in the first two years of the four-year pilot. In contrast, Cebulko's recommended pace for a general electrification program of electrifying at least 7,500 customers in 2025 and 15,000 customers in 2026[83] is only 2.6 percent of PSE's natural gas customer base. Hence, the extent of electrification in the Duvall service area required to avoid a capital pipeline investment is already aggressive, and this area has been determined the most likely location for a sufficient number of customers to be recruited to participate and make the NPA successful in avoiding a capital pipeline reinforcement project. Therefore, PSE's proposed targeted electrification pilot will be highly valuable in evaluating feasibility of electrifying at a pace necessary for deferring or avoiding gas Delivery System pipeline reinforcement projects in constrained areas under current policies and Commission guidelines.

[83] Exh. BTC-1T at 50:11-13.

V. PERFORMANCE METRICS

Q. How does PSE propose to address the matter of performance metrics for the duration of the rate plan period associated with this case?

A. As discussed in the rebuttal testimony of Matt Steuerwalt, Exh. MS-4T, the Commission issued a Policy Statement Addressing Initial Reported Performance Metrics in Docket U-210590 ("Performance Metrics Policy Statement") on August 2, 2024. PSE is withdrawing its previously proposed metrics from consideration in this case and proposes to use metrics contained in the Performance Metrics Policy Statement for reporting purposes for the duration of this rate plan.

Q. Should the Commission adopt Staff witness McGuire's recommendation that PSE provide annual reporting on average connection times for new service requests associated with new construction of single family and multi-family housing?

A. No. The Commission should not adopt McGuire's recommendation that PSE provide annual reporting on average connection times for new service requests associated with new construction of single and multi-family housing. There are multiple project phases and multiple parties external to PSE involved in establishing service to new customer construction projects. Therefore, a new metric on average connection time, based on data available to PSE, would provide limited insight into the overall process of new housing becoming ready for occupancy.

McGuire's proposal makes little sense given the numerous variables in play during a construction project. Typically, a customer or developer submits an application, and then PSE reviews the application and works with the customer so all required information has been provided. A design for service is then developed in partnership with the customer. On many projects, PSE is required to obtain permits from the authority having jurisdiction, for which the timeline can range from a few days to over six months depending on the jurisdiction. Once the application process is completed with a design finalized and approved by the permitting jurisdiction (where required), and the customer has signed a contract and paid their portion of the construction costs, the project is ready for construction. Actual date of service construction normally is then dictated by the customer's internal schedule and construction process, as PSE is dependent on customer completion of site work in preparation for receiving service.

Regarding PSE's management of new service request timelines, a construction metric managed in conjunction with PSE's service providers requires that they be onsite to install service within three weeks from the date the construction job package is ready. This requirement applies to work that takes two days or less to complete in the field, which constitutes a significant portion of new service installations. Additionally, PSE provides most temporary services and simple services in plat developments without the detailed application process, with most completed in a two-week time frame.

Given the many factors outside of PSE's control, a metric evaluating time from application to completion based on PSE data alone will provide limited insight to the process and only a partial understanding of impacts to timelines for new housing becoming ready for occupancy.

VI. CONCLUSION

Q. Does this conclude your prefiled rebuttal testimony?

A. Yes, it does.