

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

CASCADE NATURAL GAS
CORPORATION,

Respondent.

DOCKET UG-260127

**CASCADE NATURAL GAS CORPORATION
DIRECT TESTIMONY OF PATRICK C. DARRAS**

May 29, 2026

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	SCOPE AND SUMMARY OF TESTIMONY	2
III.	OVERVIEW OF PROJECT SELECTION AND BUDGETING PROCESS	2
IV.	MAJOR PROJECT PROVISIONAL ADDITIONS TO PLANT TO BE PLACED IN-SERVICE IN 2026 AND 2027	13
A.	PROGRAMMATIC FUNDING PROJECTS.....	13
1.	System Safety and Integrity Program – Mains and Services (FP-318186 and FP-318187).....	13
2.	Maximum Allowable Operating Pressure Replacement Projects (FP-319111 and FP-319112).....	21
3.	Gas Meters (FP-101210).....	24
4.	Gas Cathodic Protection (FP-302369).....	25
B.	SPECIFIC PROJECTS	27
1.	Install Main Gibraltar Road Anacortes (FP- 322144).....	27
2.	Reinforcement Burlington Six Miles of 20-Inch (FP-322776 and FP-322783)	28
3.	Divert Inc. Longview Renewable Natural Gas Project (FP-323432, FP-323434, and FP-323435).....	33
4.	Reinforcement Oak Harbor 3000 Feet 4-Inch Pipeline (FP-324581).....	35
5.	Mount Vernon Highway 9 6-Inch HP Replacement Project (FP-324799)	36
6.	Replacement of 6-Inch Oak Harbor Distribution Pipe (FP-324932).....	37
7.	Relocation Nooksack Bridge (FP-325414).....	38
8.	Main Replacement Arsenal Way Bremerton (FP-319992).....	39
9.	Richland 12-Inch HP Reinforcement Phase 2 (FP-320159).....	41
10.	Reinforcement of Richland Y-Gate (FP-320144).....	43

11.	Richland Y-Gate Upgrade (FP-320155)	44
12.	Replace Wapato HP Line Main at Railroad Crossings (FP-326397)	44
13.	8-Inch Yakima HP Replacement Project Phase 2 (FP-326638)	46
14.	Prosser 3-Inch HP Project (FP-320004)	49
15.	Nookachamps Creek Relocation (FP- 322143)	51
16.	Williams Gate Station (FP-317063 and FP-324760)	52
17.	Havekost Road 6-Inch Reinforcement Project (FP-318620)	54
18.	Camano Island Exposure Replacement (FP- 322391)	55
19.	Pasco Convoir/Clark 6-Inch Reinforcement Project (FP-326975)	57
20.	Walla Walla Orchard Street Reinforcement Project (FP-327013)	58
21.	Pasco 6-Inch HP Reinforcement Project (FP-321511)	60
22.	Wenatchee Pedestrian Bridge Project (FP-326392)	62
23.	East Finley 4-Inch HP Replacement Project (FP-322639)	63
V.	MINOR PROJECT PLANT ADDITIONS FOR 2026 AND 2027	64
VI.	HISTORICAL PLANT ADDITIONS	65
1.	System Safety & Integrity Mains Replace-WA (FP-318186)	65
2.	Wapato 4-Inch Replace Project (FP-321116)	68
3.	South Kennewick Gate and Reinforcement Project (FP-319061)	70
4.	Yakima 8-Inch HP Replacement Phase 1 Project (FP-316046)	71
VII.	CONCLUSION	73

LIST OF EXHIBITS

<u>Exhibit</u>	<u>Description</u>
Exh. PCD-2	Provisional Additions to Plant In Service 2026 – 2027 Major Projects
Exh. PCD-3	Provisional Additions to Plant In Service 2026 – 2027 Minor Projects

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Patrick C. Darras, and my business address is 400 North Fourth Street,
4 Bismarck, North Dakota 58501.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Cascade Natural Gas Corporation (“Cascade” or “Company”), a
7 wholly-owned subsidiary of MDU Resources Group, Inc., as Vice President,
8 Distribution Engineering, Operations Services, & Compliance for Cascade, Montana-
9 Dakota Utilities Company, Great Plains Natural Gas Company, and Intermountain Gas
10 Company, collectively known as “MDU Utilities Group.”

11 **Q. Please describe your duties and responsibilities with Cascade.**

12 A. I have executive responsibility for the development, coordination, and implementation
13 of Cascade’s strategies and policies related to areas of engineering and operations
14 including design, construction, compliance, and pipeline integrity and safety.

15 **Q. Please outline your educational and professional background.**

16 A. I am a graduate of North Dakota State University with a Bachelor of Science Degree
17 in Construction Engineering and hold a Master of Business Administration along with
18 a master’s degree in management, both from the University of Mary in Bismark, North
19 Dakota. I also attended the Utility Executive Course at the University of Idaho in
20 Moscow, Idaho. I have worked for MDU Utilities Group since 2002 and have held
21 positions of increasing responsibility during my tenure with the company.

1 **II. SCOPE AND SUMMARY OF TESTIMONY**

2 **Q. What is the purpose of your testimony?**

3 A. My testimony addresses Cascade’s project selection and budgeting process. I then
4 discuss major project additions to plant in service forecasted for 2026 and 2027 in
5 Cascade’s proposed multi-year rate plan. Major projects are projects with forecasted
6 costs above \$1 million. I separately discuss programmatic projects and then specific
7 projects. A table summarizing the costs of these major projects is provided as Exhibit
8 PCD-2. I also discuss projects placed in service in 2024 and 2025 that exceeded the
9 authorized amounts approved in Docket UG-240008 but were prudently incurred and
10 are currently being used to provide gas service to Cascade’s customers. Finally, I
11 discuss the presentation of projects forecasted to cost under \$1 million for 2026 and
12 2027, the minor projects, with further information presented in Exhibit PCD-3.

13 **Q. Are you sponsoring any exhibits in this proceeding?**

14 A. Yes, I sponsor the following exhibits:

- Exh. PCD-2 Provisional Additions to Plant In Service 2026 – 2027 Major
 Projects
- Exh. PCD-3 Provisional Additions to Plant In Service 2026 – 2027 Minor
 Projects

15 **III. OVERVIEW OF PROJECT SELECTION AND BUDGETING PROCESS**

16 **Q. What types of major capital projects does the Company typically perform?**

17 A. Cascade’s major capital projects include pipeline replacement projects that have been
18 identified for safety reasons and to reduce risk on Cascade’s system, system
19 reinforcements, or system expansions that have been identified as needed to ensure
20 system reliability and to accommodate growth on the Company’s system. A

1 reinforcement is an upgrade to existing infrastructure or new system additions, which
2 increases system capacity, reliability, and safety. An expansion is a new system
3 addition to accommodate an increase in demand or to extend the distribution system to
4 developing areas. Collectively, these are known as distribution enhancements.
5 Distribution system enhancements do not reduce demand, nor do they create additional
6 supply. Instead, enhancements can increase the overall capacity of a distribution
7 pipeline system while utilizing existing gate station supply points. Distribution
8 enhancements typically include:

- 9 • Pipeline reinforcement such as replacements;
- 10 • Pipeline loops and/or back feeds;
- 11 • Operating pressure increase;
- 12 • Uprates;
- 13 • Facility upgrades;
- 14 • Additional regulator station feeds or gate station supply; or
- 15 • Compressor stations.¹

16 **Q. How does the Company identify safety-related projects?**

17 A. The Company uses the Distribution Integrity Management Program (“DIMP”) and the
18 expertise of its own engineers along with support from field operations and other
19 departments to identify areas of risk on its system and to develop the safety projects
20 required to remediate risk. The DIMP supports Cascade’s understanding of the system
21 and material characteristics and is used to identify, assess, and prioritize integrity risks

¹ Additionally, Cascade’s integrated resource planning process also considers demand-side management strategies and will also assess other non-pipeline alternatives in future planning.

1 to Company-owned and operated infrastructure. The Company reviews and analyzes
2 the DIMP risk model outputs after each model run to identify areas of highest risk and
3 those areas where risk increased from the last model run.

4 Additionally, because the DIMP model does not perfectly capture all risk
5 factors, the Company also considers input from its system engineers, district managers,
6 and other subject matter experts who have intimate knowledge of specific portions of
7 Cascade's system to identify other areas of potential concern. The Company then
8 considers and analyzes existing and proposed measures to address the threats to
9 Cascade's pipeline system. The prioritization and selection of the appropriate
10 remediation actions depend on the type of threat being addressed, whether the threat is
11 current or potential, and the viability of the remedial action in managing the relevant
12 risk factors.

13 **Q. What types of projects are typically performed to address safety-related**
14 **concerns?**

15 A. Pipeline replacement is typically the most viable option to remediate risks associated
16 with corrosion, natural forces, material, weld, joint, and/or equipment. If Cascade
17 determines that replacement is an appropriate action to reduce the risk, the Company
18 establishes a replacement project.

19 **Q. How does the Company prioritize and select safety-related projects?**

20 A. Once pipe segments requiring replacement have been identified via the DIMP, the
21 Company plans and prioritizes specific projects within these segments. This process
22 ensures that higher risk threats are mitigated in a timely manner.

1 **Q. Please provide an overview of Cascade’s identification and selection process for**
2 **distribution enhancement projects.**

3 A. As part of the Integrated Resource Planning (“IRP”) process, Cascade completes a
4 comprehensive review of our distribution system models to ensure that the Company
5 can maintain reliable service to our customers during design day events. Cascade also
6 completes annual reviews of its distribution system models as part of our annual
7 budgeting process and updates the five-year budget on an as needed based upon new
8 information that impacts the five-year plan. If a deficit is predicted, the system is
9 evaluated and reinforcement options are reviewed, then an optimized reinforcement is
10 selected. The selected reinforcement will then be placed into the capital budget based
11 on the timing needs of the predicted deficit.

12 The engineering department works closely with energy services representatives
13 and district management to ensure the system is safe and reliable. As towns develop
14 and add new homes and businesses, the need for pipeline expansions and
15 reinforcements increases. The system expansion projects are historically driven by new
16 city developments or new housing plats and core growth within the service area. Before
17 expansions and installation can be constructed to serve these new customers, an
18 engineering analysis is performed. Using system modeling software to represent design
19 day conditions, predictions can be made about the capacity of the system. As new
20 groups of customers seek natural gas service, the models provide feedback on how best
21 to serve them reliably.

22 Another aspect of system planning involves gate capacity analysis and
23 forecasting. Over time, each gate station will take on more and more demand, and it is

1 Cascade's goal to stay ahead of potential reliability issues by predicting and identifying
2 constraints on its system. The IRP growth data, along with design day modeling, allows
3 Cascade to forecast necessary gate upgrades. Supervisory control and data acquisition
4 technology utilized by Cascade allows verification of numbers with real time and
5 historic gate flow and pressure data.

6 Cascade uses its design day models that incorporate customer demand from
7 historical billing in its Customer Care and Billing system to identify deficits and then
8 propose enhancement solutions to address the deficit. The design day model facilitates
9 modeling predicted core growth, constraint identification, and corresponding optimum
10 combinations of pipe modification, and pressure modification solutions to maintain
11 adequate pressures throughout the system. Annually, the Company analyzes every
12 system at design day conditions to identify areas where potential outages may occur.
13 These constraint areas are then risk-ranked against each other to ensure the highest risk
14 areas are corrected first and that others are properly addressed. Within a given area,
15 projects/reinforcements are selected using the following criteria:

- 16 • The shortest segment(s) of pipe that improves the deficient part of the
17 distribution system;
- 18 • The segment of pipe with the most favorable construction conditions, such as
19 ease of access, easement rights, or traffic issues and minimal to no water,
20 railroad, major highway crossings, or other complicating factors;
- 21 • The segment of pipe that minimizes environmental concerns including minimal
22 to no wetland involvement, and the minimization of impacts to local
23 communities and neighborhoods;

- 1 • The segment of pipe that provides opportunity to add additional customers; and
- 2 • Total construction costs including restoration.

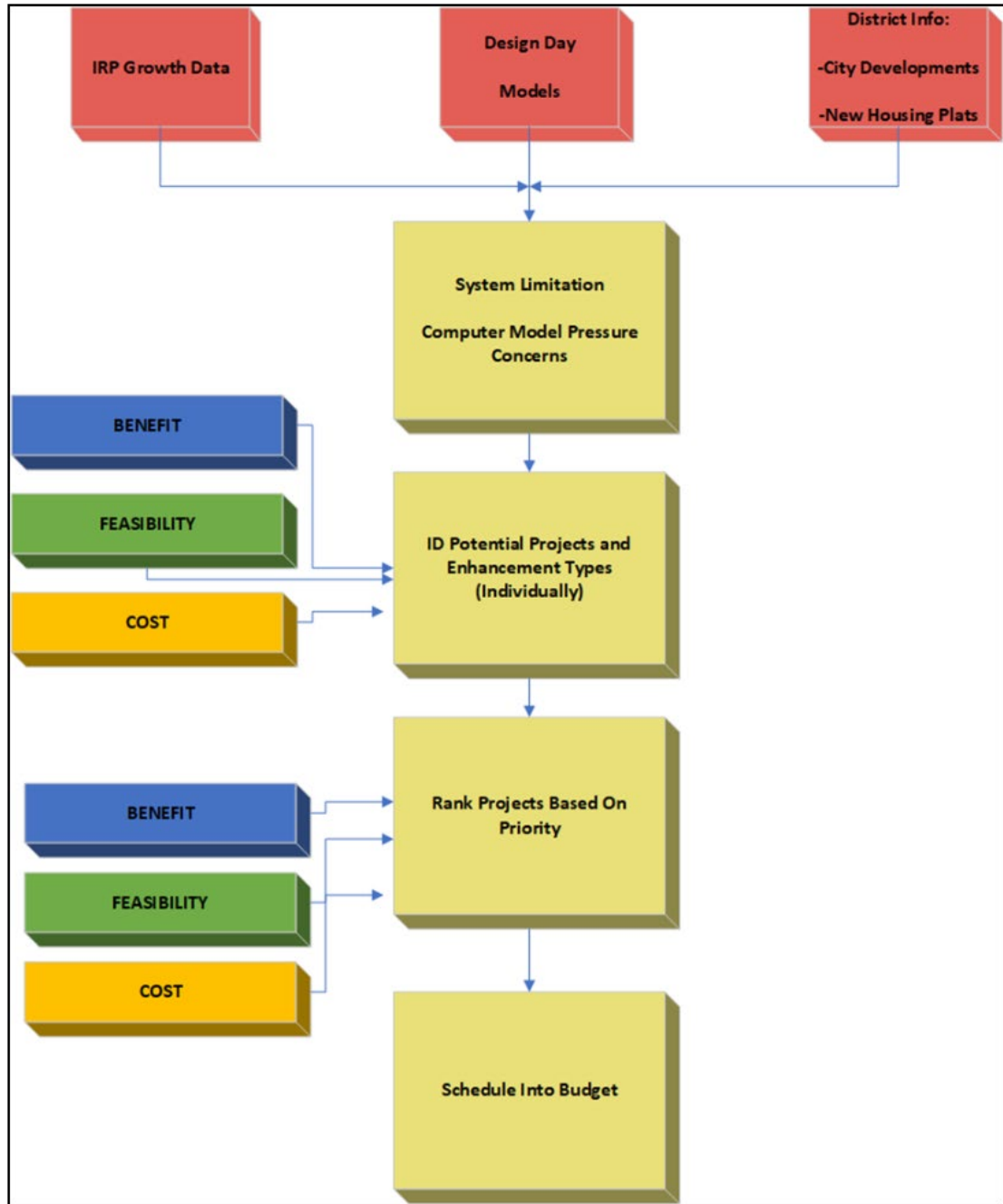
3 Once a project is identified, the design engineer or energy services
4 representative begins a more thorough investigation by surveying the route and filing
5 for permits. This process may uncover additional impacts such as moratoriums on road
6 excavation, underground hazards, discontent among landowners, or other issues,
7 resulting in another iteration of review of the above project selection criteria. Figure 1,
8 below, provides a schematic representation of the distribution project process flow.

9 ///

10 ///

11 ///

Figure 1 – Distribution Planning Project Process Flowchart²



² See, e.g., *In re the Petition of Cascade Nat. Gas Corp., 2025 Integrated Res. Plan*, Docket UG-231023, Cascade’s 2025 Integrated Resource Plan at 8-11 (May 23, 2025).

1 **Q. Does Cascade conduct a demand study for each individual distribution system**
2 **project?**

3 A. No. Cascade identifies deficits using Cascade’s design day models, which have
4 demands incorporated and then works through alternative analysis to identify the most
5 favorable alternative from a cost and project timing need perspective. Cascade
6 completes more robust demand studies for large complex laterals with a significant
7 mileage (e.g., over 20 miles) that have compressor stations on the lateral. These larger,
8 more complex laterals are modeled using unsteady state models using compressor
9 dynamics and large volume customer load profiles to review and ensure the laterals can
10 deliver the flows and pressures needed. To date, Cascade has modeled one demand
11 study in Washington for the 20-inch Anacortes lateral project.

12 **Q. Does the Company also consider demand side management alternatives?**

13 A. Yes. The Company also reviews the impacts of proposed conservation resources on
14 anticipated distribution constraints through its IRP process. Although Cascade provides
15 utility-sponsored conservation programs throughout its Washington service territory,
16 there may be instances where a more targeted approach could reduce or delay the
17 estimated reinforcement for a specific area. While Cascade attempts to influence these
18 decisions through its conservation programs, the consumer is still the ultimate decision
19 maker regarding the purchase and use of a conservation measure. Therefore, in the
20 short term, Cascade does not anticipate that the peak day load reductions resulting from
21 incremental conservation will be adequate to eliminate distribution system constraint
22 areas at this time. However, over the longer term, the Company plans to continue to

1 explore opportunities for targeted conservation programs to provide a cumulative
2 benefit that offsets potential constraint areas.

3 **Q. How does the Company's IRP process inform project selection?**

4 A. Cascade's IRP evaluates safe, economical, and reliable full-path delivery of natural gas
5 from basin to the customer meter. Securing adequate natural gas supply and sufficient
6 pipeline transportation capacity to Cascade's city gates are necessary elements for
7 providing gas to the customer. The other essential element is ensuring the distribution
8 system growth behind the city gates is not constrained.

9 **Q. Are all of the major projects identified in the Company's IRP?**

10 A. No. Safety-related projects are not typically included in the IRP since safety-related
11 projects are required by Federal and State Pipeline Safety regulations and to ensure the
12 Company is operating its gas system safely. Forced relocations are also not included in
13 the IRP. Generally, the projects that are included in the IRP are distribution
14 enhancement projects, which address system capacity, maintenance, and growth.

15 **Q. Please provide an overview of Cascade's capital project budgeting process.**

16 A. Capital additions and changes are planned through the annual budget process using
17 PowerPlan ("PP"). The budget process begins with an individual, the originator,
18 creating specific funding projects in PP for all new projects to be included in the five-
19 year capital budget. Originators are generally Project Managers, engineering staff, or
20 managers at the district level. Sources of information for capital projects include the
21 IRP, DIMP, the Transmission Integrity Management Program, state and local
22 government agencies, and internal Cascade personnel. Funding projects are used to
23 hold the capital budget estimates and will be linked to the capital work orders to be

1 created when actual costs commence. A Fixed Asset Financial Analyst reviews the
2 funding projects for proper setup. If the project is not considered a capital expenditure
3 as it was submitted, it is rejected and sent back to the originator for revision, cancelled,
4 or it is moved to Operations and Maintenance (“O&M”) Expense. After the review has
5 been completed; the Fixed Asset Financial Analyst will add appropriate overheads and
6 approve the funding project. Programmatic funding projects are used year after year to
7 budget for high volume mass property work orders typically under \$100,000 each.

8 Once all the funding projects have been updated with expenditures, various
9 Company operating managers generate reports to show estimated expenditures and
10 justification for each project. The managers perform the review of funding projects and
11 see that any necessary changes are made to the estimate and that the project is
12 supported. Reports are then generated by the budgeting personnel for review and
13 approval by the Directors and Vice Presidents of the utility group. Any final budget
14 changes are made, and the budgets are then presented to the utility group’s Chief
15 Utilities Officer for review and approval. At each stage of review and approval process
16 a project (or projects) can be challenged for appropriateness and removed from the
17 capital budget or moved to another year within the five-year budget. The final capital
18 budget is approved by the Cascade board of directors.

19 After final approval, an approved budget version is created in PP and locked for
20 entry and the funding projects and estimated amounts in the approved budget version
21 are copied back to the working budget version. Project managers are notified that the
22 budget has been approved and the funding projects are open for work order creation.
23 Projects are monitored and updated throughout the year as part of the review process

1 and to ensure, as best as possible, that projects are completed on time and within the
2 approved budget.

3 Cascade recently established a dedicated Project Management Department to
4 improve financial oversight and forecasting accuracy. Under this model, Project
5 Managers are assigned to specific projects initiatives to monitor progress and update
6 projections throughout the project lifecycle. This ongoing review process is designed
7 to ensure that projects are delivered on schedule and remain aligned with approved
8 budgetary constraints.

9 **Q. What costs are addressed in your testimony?**

10 A. My testimony provides support for actual historical costs for plant in service that were
11 not included in rates during the prior multi-year rate plan. I also provide the estimated
12 costs for projects that will go into service during the proposed two-year rate plan.
13 Table 1 below provides a summary of all costs addressed in my testimony.

14 **Table 1 – Summary Plant Costs**

Description	Specific Projects	Programmatic Projects	Total
2026 Major Provisional Period Projects	\$30,579,729	\$19,137,763	\$49,717,492
2027 Major Provisional Period Projects	\$49,885,841	\$20,043,519	\$69,929,359
2026-2027 Minor Provisional Period Projects	\$13,834,339	\$4,140,855	\$17,975,195
Total Provisional Additions to Plant In-Service	\$94,299,909	\$43,322,137	\$137,622,046
2024-2025 Plant Variances ³	\$10,385,018	\$3,314,247	\$13,699,265

³ See Section VI below.

1 Early vintage steel pipe includes steel mains, service lines, and associated
2 fittings installed prior to January 1, 1970. This pipe presents a higher risk of failure
3 compared to modern steel pipe due to age-related degradation and historical
4 construction practices. Cascade’s SSIP is primarily focused on the replacement of early
5 vintage steel pipe, which represents the greatest overall risk to system safety and
6 integrity. The principal risk drivers include:

- 7 • External corrosion, resulting from bare, damaged, disbonded, or poorly
8 performing coatings; adverse soil and backfill conditions; and ineffective or
9 limited cathodic protection practices in place at the time of installation;
- 10 • Material, weld, or joint failures, often associated with historical installation
11 practices, including the absence of modern weld standards or welder
12 qualifications, vintage acetylene gas welds, and material or fitting defects;
- 13 • Equipment failures, including aging mechanical fittings, failed O-rings in main
14 to service connections, and other legacy equipment installed when the pipe was
15 originally installed; and
- 16 • Incomplete or missing data, such as unknown pipe attributes, construction
17 details, corrosion control history, maintenance and leak records, and
18 insufficient documentation to establish maximum allowable operating pressure
19 (“MAOP”).

20 Through SSIP, Cascade proactively addresses these known risks by replacing
21 higher-risk legacy infrastructure with modern materials that meet current design,
22 construction, and safety standards. The program supports Cascade’s obligation to
23 operate and maintain a safe and reliable natural gas distribution system, reduces the

1 likelihood of leaks and failures, and represents a prudent, long-term investment in
2 system integrity that benefits customers by mitigating safety risk and avoiding higher
3 future costs associated with unplanned failures.

4 **Q. Why did the Company start the SSIP?**

5 A. SSIP was developed in response to requirements established by the PHMSA for gas
6 distribution operators to implement a DIMP.⁵ PHMSA's DIMP regulations require
7 operators to demonstrate an understanding of their distribution system design and
8 material characteristics; describe operating conditions and the operating environment;
9 compile maintenance and operating history; identify existing and potential threats;
10 evaluate and rank risks; and identify and implement measures to address those risks.⁶
11 Operators are also required to measure program performance, monitor results, evaluate
12 effectiveness, and periodically review and improve their integrity management plans.⁷

13 SSIP is a mechanism for identifying and implementing measures to address
14 elevated risks on its distribution system through the targeted replacement of higher-risk
15 legacy pipe. By systematically replacing early vintage pipe with modern materials that
16 meet current design and safety standards, SSIP directly supports Cascade's compliance
17 with DIMP requirements and advances the safe and reliable operation of its distribution
18 system.

⁵ 49 C.F.R. § 192.1005 (“No later than August 2, 2011 a gas distribution operator must develop and implement an integrity management program[.]”).

⁶ 49 C.F.R. § 192.1007.

⁷ *Id.*

1 **Q. How does the Company prioritize and select safety-related projects as part of its**
2 **SSIP?**

3 A. Cascade prioritizes and selects safety-related projects under SSIP using a structured,
4 risk-based approach utilizing its DIMP. Through DIMP, Cascade identifies, analyzes,
5 and monitors risks across its distribution system using a combination of system
6 characteristics, historical maintenance and leak data, available external information,
7 and the expertise of subject matter experts with experience in system operations,
8 maintenance, design, and construction. This information is incorporated into a risk
9 model that evaluates both the likelihood of failure and the potential consequences of
10 failure for distribution system assets. SSIP leverages the DIMP risk model and
11 associated relative risk scores to calculate a weighted average risk score for each town
12 in Washington. These scores are used to identify locations with elevated risk associated
13 with early vintage plastic pipe and early vintage steel pipe.

14 Ongoing analysis consistently demonstrates that early vintage plastic pipe and
15 early vintage steel pipe have a higher likelihood of leakage and are more prone to
16 substandard conditions, including corrosion, material defects, weld or joint issues, and
17 aging equipment failures. Main and service segments with these characteristics present
18 an elevated risk of failure, as validated by DIMP risk assessments.

19 Based on this risk analysis, Cascade prioritizes SSIP projects by targeting
20 locations and facilities with the highest relative risk, ensuring that capital investments
21 are directed to those projects that most effectively reduce safety risk and improve
22 overall system integrity.

1 **Q. Why did the Company undertake the project?**

2 A. Cascade started SSIP because pipeline replacement is the most effective and reliable
3 means of mitigating the safety, reliability, and operational risks associated with aging
4 distribution infrastructure. These risks include corrosion, material failure, weld or joint
5 failure, equipment failure, and unknown or missing asset data. Through the DIMP risk
6 analysis, Cascade determined that certain segments of early vintage pipe present an
7 elevated risk of failure and that replacement, rather than continued maintenance or
8 repair, is the most prudent and cost-effective method to reduce that risk. SSIP addresses
9 these conditions by systematically replacing higher-risk pipe with modern materials
10 that meet current design and safety standards. By undertaking this project, Cascade
11 proactively reduces the likelihood of leaks and unplanned outages, improves system
12 reliability, and fulfills its obligation to operate and maintain a safe and reliable
13 distribution system in a manner that is reasonable and in the best interest of customers.

14 **Q. How will customers benefit from the project?**

15 A. Customers benefit from the project through improved public safety, enhanced system
16 reliability, and reduced long-term operating and maintenance costs. By replacing
17 higher-risk facilities with modern materials that meet current design and safety
18 standards, the project reduces the likelihood of leaks, unplanned outages, and
19 emergency repairs. This proactive approach improves service reliability for customers
20 and helps avoid higher future costs associated with reactive maintenance and
21 emergency response, resulting in a safer and more reliable natural gas distribution
22 system.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. Yes. Cascade evaluated alternative approaches to address the identified risks; however,
3 for early vintage plastic pipe and early vintage steel pipe, systematic pipe replacement
4 is typically the most effective and reliable method to mitigate safety and integrity
5 concerns. Alternatives such as increased monitoring, maintenance, or localized repairs
6 do not adequately address the underlying age-related risks associated with these
7 facilities. Where feasible, Cascade coordinates SSIP work with state, city, county, and
8 private contractors performing roadway, highway, or underground infrastructure
9 projects in the same vicinity. This coordination reduces duplication of work, lowers
10 overall project costs, minimizes disruptions to the public and customers, and maximizes
11 the efficient use of customer funds. Through this approach, Cascade ensures that SSIP
12 addresses safety risks in a prudent and cost-effective manner while taking advantage of
13 opportunities to reduce impacts and expenses when alternatives are available.

14 **Q. Would you please describe the SSIP pipe replacement projects that will be
15 completed in 2026 and 2027?**

16 A. Yes, Cascade will continue SSIP pipe replacement in Kelso and Longview,
17 Washington, in 2026 and 2027.

18 **Q. Would you please describe the Kelso/Longview SSIP pipe replacement?**

19 A. The Kelso/Longview SSIP pipe replacement project is a multi-year project focusing on
20 the replacement of early vintage steel pipe mains and services with polyethylene (“PE”)
21 lines in Kelso and Longview, Washington.

1 **Q. Why did the Company undertake the Kelso/Longview SSIP pipe replacement?**

2 A. Kelso and Longview were identified through DIMP risk analysis as areas containing a
3 significant concentration of high-risk bare early vintage steel pipe in the state of
4 Washington. Much of this pipe is classified as “Pre-CNG Pipe,” meaning it was
5 originally installed prior to 1955 to serve manufactured gas or natural gas systems and
6 was constructed, owned, operated, and maintained by entities other than Cascade.
7 Cascade subsequently acquired many of these systems in the late 1950s and throughout
8 the 1960s. Pre-CNG Pipe is typically bare steel or coated with poorly performing coal
9 tar wrap and is over 60 years old. In many cases, this pipe operated for extended periods
10 with no or inadequate cathodic protection until the early 1970s, resulting in an elevated
11 risk of external corrosion. In addition, Pre-CNG Pipe presents increased integrity risk
12 due to incomplete or missing information regarding pipe attributes, construction
13 details, and historical operating and maintenance records. Based on these factors,
14 Cascade determined that systematic replacement of this pipe through the SSIP was the
15 most effective means of reducing safety and reliability risks in the Kelso and Longview.

16 **Q. What is the project timeline for Kelso/Longview SSIP pipe replacement?**

17 A. The current Kelso/Longview SSIP pipe replacement project was started in 2023 and is
18 anticipated to continue through 2028.

19 **Q. What are the estimated costs for the project?**

20 A. Total forecasted costs for the years 2026 and 2027 are provided in Table 2 below.

1

Table 2 – SSIP 2026 and 2027 Forecasted Costs

Funding Project	Description	2026 Forecasted Cost	2027 Forecasted Cost
FP-318186	Sys Safety & Integrity Mains	\$7,016,868	\$4,285,845
FP-318187	Sys Safety & Integrity Services	\$2,452,098	\$4,285,845
Total		\$9,468,967	\$8,571,690

2 **Q. Are there any offsetting O&M cost savings associated with this project?**

3 A. Yes. SSIP is expected to generate offsetting O&M cost savings over time by replacing
4 early vintage plastic and steel pipe that is more susceptible to leaks, corrosion, material
5 defects, and equipment failures. Replacing these higher-risk facilities reduces the need
6 for reactive maintenance, leak repairs, emergency response, and investigative work,
7 while modern materials and improved asset data support more efficient system
8 operations. Although the primary purpose of SSIP is to enhance safety and reliability,
9 these reductions in unplanned maintenance activities are expected to help reduce long-
10 term O&M costs.

11 **Q. Does the Company expect SSIP efforts to continue?**

12 A. Yes. Pipeline operators are required to implement integrity management programs that
13 evolve over time to reflect an operator’s specific system characteristics, operating
14 environment, and available data. As required under federal integrity management
15 regulations, these programs must be periodically reviewed, updated, and improved as
16 new information becomes available.⁸ The continued development of Cascade’s
17 integrity management program requires ongoing collection and analysis of system data

⁸ 49 C.F.R. § 192.1007(f).

1 to identify and reassess higher-risk facilities. Once system segments are prioritized, the
2 development and execution of remediation or replacement plans typically occur over
3 multiple years due to project planning, coordination, permitting, and construction
4 considerations. Based on these factors, and the continuing need to address aging
5 infrastructure and evolving risk information, Cascade expects the SSIP to continue for
6 the foreseeable future as part of its ongoing commitment to system safety and
7 reliability.

8 **Q. Was the SSIP addressed in Cascade’s IRP?**

9 A. No, the project was not included in the IRP because it is a safety-related project and not
10 related to core growth.

11 **Q. Is the Company currently collecting all of its SSIP costs in rates?**

12 A. No. As I discuss further in Section VI below, costs for SSIP Mains (FP-318186)
13 exceeded the forecasted amount included in Cascade’s last multi-year rate plan allowed
14 costs. From a budget perspective, this was largely offset by lower spending on SSIP
15 Services (FP-318187). For ratemaking purposes, however, the SSIP Mains project and
16 SSIP Services project were treated separately under the multi-year rate plan provisional
17 plant report.

18 **2. *Maximum Allowable Operating Pressure Replacement Projects (FP-319111***
19 ***and FP-319112)***

20 **Q. Please describe the MAOP Replacement projects.**

21 A. The MAOP Main Replacement project (FP-319111) includes the replacement of short
22 segments of older steel high pressure (“HP”) mains that lack documentation regarding
23 MAOP. The MAOP Service Line Replacement project (FP-319112) includes the
24 replacement of short segments of steel HP service lines.

1 **Q. Why did the Company undertake these projects?**

2 A. The segments that are being replaced were identified in Cascade Natural Gas
3 Corporation's MAOP Determination and Validation Plan, developed in accordance
4 with Docket PG-150120,⁹ as lacking sufficient documentation to validate their MAOP.
5 Given the age of the pipeline segments and the absence of required records necessary
6 to confirm MAOP, replacement is the most prudent and effective option. This approach
7 ensures compliance with regulatory requirements and maintains the safety and
8 reliability of the Company's distribution system.

9 **Q. How will customers benefit from the projects?**

10 A. Customers benefit from these projects because they address documentation gaps
11 necessary to safely continue operating the pipeline segments at their current MAOP. In
12 addition, replacement establishes a higher, fully documented design pressure, which
13 improves operational efficiency, reduces reliability constraints within the Company's
14 distribution system, and supports Cascade's ability to continue serving existing
15 customers.

16 **Q. Did the Company consider alternative ways to meet the need for the projects?**

17 A. Yes. Cascade considered alternative approaches to address the need for these projects.
18 One alternative evaluated was removing the pipeline segments from service and
19 conducting a pressure test to validate each segment's MAOP. However, pressure
20 testing presented additional challenges compared to replacement, including the
21 difficulty of maintaining service to customers during the testing process and increased
22 safety risks associated with testing older pipeline facilities. Ultimately, replacement

⁹ *Wash. Utils. & Transp. Comm'n v. Cascade Nat. Gas Corp.*, Docket PG-150120, Updated MAOP Plan (Mar. 29, 2018).

1 was determined to be the most prudent option to address safety, reliability, and service
2 continuity concerns.

3 **Q. Are there any offsetting O&M cost savings associated with these projects?**

4 A. Not that can be quantified at this time. However, replacing older lines is expected to
5 reduce long-term O&M costs.

6 **Q. What work has been completed and when will the installations under these
7 projects be placed in service?**

8 A. Individual replacements under these projects are expected to be in service throughout
9 2026 and 2027.

10 **Q. Were these projects described in Cascade's IRP?**

11 A. No, the projects were not included in the IRP because they are safety-related projects
12 and not related to core growth.

13 **Q. What are the estimated costs for the MAOP Main Replacement project
14 (FP-319111) project?**

15 A. The total estimated capital investment for the MAOP Main Replacement project is
16 \$4,621,110 for 2026 and \$5,926,500 for 2027.

17 **Q. What are the estimated costs for the MAOP Service Line Replacement project
18 (FP-319112) project?**

19 A. The total capital investment for the MAOP Service Line Replacement project is
20 \$738,251 for 2026 and \$888,975 for 2027.

1 **Q. Are all of the MAOP related mains and service lines projects included in the**
2 **programmatic projects (FP-319111 and FP-319112)?**

3 A. No. Larger individual replacement projects, meaning over \$150,000, are tracked as a
4 separate funding project and receive their own budget. Those projects are not included
5 in the forecasted costs above. Those projects are discussed as specific projects below
6 and in Exhibit PCD-3.

7 **3. Gas Meters (FP-101210)**

8 **Q. Please describe the Gas Meters Project.**

9 A. Cascade budgets each year for the number of gas meters needed for new service and or
10 its existing O&M programs. Cascade has a meter replacement program where meters
11 are tested and replaced as needed to stay within required meter accuracy criterion.

12 **Q. Why did the Company undertake the project?**

13 A. Utilities are required to adopt schedules for periodic tests and repairs of meters.
14 Cascade Tariff Rule 7 – Meters and Meter Testing Procedures describes the Company’s
15 meter test procedures and meter sample program. The maximum permissible error of
16 meters placed in service is 2.0 percent. Meters with capacity less than 3,000 cubic feet
17 per hour (cfh) are tested every ten years and meters with capacity greater than 3,000
18 cfh are tested every five years.

19 Cascade also employs a meter statistical sample program, where a meter in the
20 sample group is assigned to a family according to its manufacturer, meter class, and set
21 year. These families may be further subdivided according to meter type, size, location,
22 age, or other factors. The performance evaluation of each meter family is then based
23 on an evaluation of test results from random sampling of the family.

1 Under the meter statistical sample program, corrective action can include either
2 a selective removal program to raise the accuracy performance of the family to
3 acceptable standards or removal of the entire family from service. The program year
4 begins on January 1 and ends of December 31. Sample data collected during the
5 program year is analyzed, and a decision regarding meter family disposition made in
6 the first quarter of the following calendar year.

7 Additionally, any customer may request that the Company test their meter.

8 **Q. How will customers benefit from the project?**

9 A. Customers benefit from ensured accurate billing and meters availability for new
10 installations, change outs, and replacement programs.

11 **Q. What work has been completed and when will the project be placed in service?**

12 A. This is a blanket funding project. New meter installations and replacements are
13 ongoing.

14 **Q. What are the estimated costs for the project?**

15 A. Cascade has budgeted \$3,879,264 in 2026 and \$4,079,578 in 2027 for this project.

16 **4. Gas Cathodic Protection (FP-302369)**

17 **Q. Please describe the Gas Cathodic Protection project.**

18 A. The Gas Cathodic Protection project consists of individual corrosion control efforts for
19 Cascade's buried steel main and service lines. Corrosion control is required to mitigate
20 the effects of external corrosion, which can compromise pipe integrity over time. These
21 projects include the installation and upgrade of corrosion control protection devices
22 such as rectifiers, galvanic groundbeds, impressed current groundbeds, AC/DC
23 mitigation systems, and test stations to ensure the continued safe and reliable operation
24 of the gas distribution system.

1 **Q. Why did the Company undertake the project?**

2 A. The Company undertook this project to comply with regulatory requirements
3 established by PHMSA, which mandate corrosion control for all buried steel main and
4 service lines. Implementing these measures ensures continued compliance while
5 maintaining the safety and integrity of the gas distribution system.

6 **Q. How will customers benefit from the project?**

7 A. Customers will benefit from improved safety and system reliability through the
8 reduction of external corrosion. Without effective corrosion control measures, steel
9 main and service lines are more vulnerable to external corrosion, which can
10 compromise pipe integrity and increase the risk of leaks. This project helps mitigate
11 those risks and supports the continued safe delivery of service.

12 **Q. Did the Company consider alternative ways to meet the need for the project?**

13 A. No alternatives were considered to meet the need for this project. Eliminating cathodic
14 protection would require replacing all existing steel main and service lines with plastic,
15 which is not feasible due to cost, constructability, and system constraints. As a result,
16 cathodic protection remains the most practical and effective method to meet regulatory
17 requirements and ensure the continued safe operation of the system.

18 **Q. Are there any offsetting O&M cost savings associated with this project?**

19 A. No, there are no offsetting O&M cost savings.

20 **Q. What work has been completed and when will the project be placed in service?**

21 A. These projects are expected to be in service throughout 2026 and 2027.

22 **Q. What are the estimated costs for the project?**

1 A. The total capital investment for this project is \$430,172 for 2026 and \$576,776 for
2 2027.

3 **Q. Was this project described in the IRP?**

4 A. No, the project was not included in the IRP because it is a safety-related project and not
5 related to core growth.

6 **B. SPECIFIC PROJECTS**

7 *1. Install Main Gibraltar Road Anacortes (FP- 322144)*

8 **Q. Please describe the Install Main Gibraltar Road Anacortes project**

9 A. This project is to reinforce the existing Anacortes system with installation of
10 approximately 3,700 feet of 4-inch PE distribution pressure main on Gibraltar Road,
11 between Palm Lane and Jura Way.

12 **Q. Why did the Company undertake the project?**

13 A. The South Anacortes distribution system needs reinforcement due to low pressures
14 during cold weather events. These low pressures risk the reliability to feed the core
15 customers because this portion of the system currently has no reinforcements or
16 looping. Due to the location, there are no alternatives to increase pressures in this area,
17 aside from reinforcement.

18 **Q. How will customers benefit from the project?**

19 A. Benefits of this project are estimated to increase downstream pressures, which will
20 result in better reliability for this system during cold weather events.

21 **Q. Did the Company consider alternative ways to meet the need for the project?**

22 A. No other reinforcements were evaluated given the system configuration in the area.
23 This area is fed by the single existing 2-inch PE main on Gibraltar Road and there is
24 no nearby system to loop to that would increase the pressures in this area.

1 **Q. Are there any offsetting O&M cost savings associated with this project?**

2 A. No. There are no offsetting O&M cost savings with this project.

3 **Q. What work has been completed and when will the project be placed in service?**

4 A. Construction was completed and the new pipeline was placed into service February
5 2026.

6 **Q. What are the estimated costs for the project?**

7 A. Estimated cost for the total project is \$1,953,583

8 **Q. Where there any significant project changes between what was described in the
9 IRP and the actual project?**

10 A. No.

11 **2. Reinforcement Burlington Six Miles of 20-Inch (FP-322776 and FP-322783)**

12 **Q. Please describe the FP-322776 component of the Reinforcement Burlington Six
13 Miles of 20-Inch project.**

14 A. This project consists of installing six miles of 20-inch transmission main to replace a
15 portion of the existing 8-inch section of the Anacortes transmission line. The 16-inch
16 and 8-inch Anacortes Lateral is at capacity and currently has a deficit, requiring
17 reinforcement to meet large volume contract demands, improve suction pressure to the
18 Fredonia compressor station, and meet core growth needs along the lateral. The
19 Anacortes lateral runs 19 miles from Sedro Woolley to Anacortes and serves several
20 large refineries in Anacortes.

21 **Q. Please describe the FP-322783 component of the Reinforcement Burlington Six
22 Miles of 20-Inch project.**

23 A. This is the land acquisition project associated with the construction of the 20-inch
24 pipeline in FP-322776, including permanent and temporary easements to support

1 construction activities. While the pipeline used existing rights-of-way, additional
2 permanent and temporary easements were required for both the pipeline and
3 construction activities.

4 **Q. Why did the Company undertake this reinforcement project?**

5 A. The Company undertook this project to address a deficit on the 16-inch and 8-inch
6 Anacortes Lateral.

7 **Q. How will customers benefit from the project?**

8 A. This project will provide additional capacity to the Anacortes lateral and will address
9 the current large volume (“LV”) customer deficit and will help get the Fredonia
10 compressor back into a lower horsepower range on the compressor curve by increasing
11 suction pressure to the compressor. Over the last couple of years, Cascade has
12 experienced several operational issues and failures on the compressor. Running the
13 compressor at lower horsepower will reduce operational stress on the compressor,
14 reducing O&M costs. This project will also allow Cascade to support core growth
15 predicted along the lateral.

16 **Q. Did the Company consider alternative ways to meet the need for the project?**

17 A. Yes. The engineering services considered two alternatives for this reinforcement. The
18 first alternative considered was to install a second compressor station on the Anacortes
19 Lateral upstream of the existing Fredonia compressor. A new compressor would need
20 to be permitted and introduced risk of permit denial associated with potential
21 opposition. The alternative also raised operational concerns due to the recent
22 compressor issues and failures on the Fredonia compressor station which caused
23 interruptions to LV customers.

1 The second alternative considered was to back feed the Anacortes lateral from
2 the Mount Vernon Gate by installing ten miles of 20-inch transmission line. This option
3 had the operational benefit of looping the Sedro Wooley and Mount Vernon Gates, but
4 had challenges associated with permitting the entire pipeline route including significant
5 easement acquisition to support O&M on the 20-inch transmission line. Another
6 consideration was the inability to phase this alternative, requiring installation of the
7 entire 10 miles in one construction effort.

8 **Q. Why was the project chosen as the preferred alternative to address the issues in**
9 **the area?**

10 A. The previous work in 2015, 2016, and 2017 provided an opportunity to replace the
11 existing 8-inch transmission line in existing easements provided numerous time and
12 cost savings opportunities, which is why replacement of six miles of 8-inch line for
13 20-inch line was selected. The majority of the environmental work was previously
14 completed and only needed to be refreshed for formal environmental submittals. This
15 option also allowed for the project to be phased, and future phases could be completed
16 to gain additional capacity by continuing replacement of the 8-inch transmission line
17 from the end of this project to the Fredonia compressor station (an additional six miles,
18 approximately).

19 **Q. Are there any offsetting O&M cost savings associated with this project?**

20 A. Yes. This project will reduce O&M cost on the Fredonia compressor by allowing the
21 compressor to operate more efficiently in the compressor curve. The project will also
22 reduce run hours on the compressor, which will reduce O&M tasks based on hour run
23 intervals.

1 **Q. What work has been completed and when will the project be placed in service?**

2 A. Pipeline construction was completed in October 2025. Final rupture-mitigation valve
3 (“RMV”) site work and programming were completed and the RMVs began normal
4 operation in April 2026.

5 **Q. Was the project included in Cascade’s previous multiyear rate plan?**

6 A. Yes. The Commission authorized recovery of approximately \$29.0 million as part of
7 2025 plant additions.

8 **Q. Were Cascade’s actual costs to construct the 20-inch pipeline project higher than
9 \$29.0 million in 2025?**

10 A. Yes. The project cost an additional \$8,264,766 to construct.

11 **Q. Does the Company anticipate additional FP-322776 project costs in 2026?**

12 A. Yes. The 2026 project costs are estimated at \$4,759,636. This includes actual 2026
13 costs and expected costs for final work associated with the project, which will accrue
14 in the next few months. Final work for the project includes right-of-way restoration,
15 crop damage payments, RMV sites, 8-inch retirement, and environmental permitting
16 requirements.

17 **Q. Please describe the cause of the increased costs.**

18 A. The increase in project costs was caused by increased construction costs related to a
19 number of factors. First, additional dewatering and special backfill was required,
20 increasing costs by approximately \$2.1 million. Second, new PHMSA requirements for
21 RMV sites increased costs by approximately \$1.5 million. Survey, permitting, and
22 environmental inspection costs exceeded estimates by an additional \$1.1 million.
23 Inspection costs were approximately \$400,000 higher than expected, and non-

1 destructive testing costs were approximately \$350,000 higher. The additional
2 requirements also resulted in approximately \$4 million in additional contractor costs
3 due to the required change orders.

4 **Q. What actions did the Company take to mitigate the increase in costs?**

5 A. Cascade worked with the contractor and consultants to minimize cost increases related
6 to the construction costs. Cascade diligently reviews and negotiates all change orders
7 and scope additions. In a couple of instances, Cascade pushed back on contractor
8 change orders and negotiated with the contractor to accept lower change order amounts
9 based on the change order circumstances and contract terms.

10 **Q. Given the increased costs, was the project still the most cost-effective option to
11 address the system issues?**

12 A. Yes. The project remained the best course of action because it addresses a demonstrated
13 capacity deficit on the Anacortes Lateral, improves suction pressure to the Fredonia
14 compressor, reduces stress and failures on that compressor, supports core growth, and
15 positions the system for future industrial expansion through later phases. The same
16 construction issues and costs would likely have also been encountered on the proposed
17 alternative of installing a 20-inch, ten-mile pipeline back feed from the Mount Vernon
18 Gate. That alternative would also likely incur even higher costs due to the additional
19 pipeline mileage (ten miles versus six miles—66 percent longer). Because the
20 infrastructure was executed to secure required system capacity and reliability, recovery
21 of the actual cost overrun is an appropriate step to align regulatory cost accounting with
22 the necessary investments made.

1 **Q. What is the status of the land acquisitions (FP-322783)?**

2 A. Cascade is in the condemnation process to finish the formal land acquisition. Land
3 acquisition did not delay construction since property in the condemnation proceedings
4 granted Cascade access to construction of the pipeline while the condemnation process
5 was being completed or settled outside of condemnation. At this time, Cascade is
6 working with the final landowner to complete all necessary land acquisitions in 2026.

7 **Q. What are the estimated costs for the land acquisitions?**

8 A. Total 2026 estimated project costs are \$2,951,916.

9 **3. *Divert Inc. Longview Renewable Natural Gas Project (FP-323432, FP-***
10 ***323434, and FP-323435)***

11 **Q. Please describe the Divert Inc. (“Divert”) Renewable Natural Gas (“RNG”)**
12 **project.**

13 A. This project is a transport project that will allow RNG from Divert’s RNG production
14 biorefinery to flow into Cascade’s distribution system and allow Cascade to provide
15 RNG transportation service to Divert. The project consists of a new interconnect
16 facility at the location of Divert’s biorefinery, and 1,700 feet of 2-inch HP steel from
17 the interconnect facility to Cascade’s existing 12-inch HP system located along
18 Industrial Way in Longview, Washington. The three project components include an
19 odorizer project (FP-32334), a new RNG regulator station (FP-323432), and a meter
20 station (FP-323435).

21 Divert and Cascade exchanged a term sheet for this project in late 2021 and
22 signed an RNG Facilities Interconnect Agreement in March of 2022. Under this
23 agreement, Cascade will install facilities required to flow RNG from Divert’s
24 biorefinery into Cascade’s distribution system and provide transportation service to

1 Divert. At the time of interconnect agreement signing, Divert was to sign a RS-663
2 transportation service agreement with Cascade until a biomethane transportation tariff
3 was in place, where the facility cost to Divert was determined in accordance with
4 Cascade's Extension of Distribution Facilities Rule 8 in effect in late 2021 when the
5 term sheet for the project was exchanged. Cascade estimated the annual margin from
6 the transportation of RNG under Schedule 663 based on a contract demand of 5,760
7 therms/day at \$109,326. Based on Rule 8, the allowance toward the cost of the
8 infrastructure was determined to be \$1,573,036. Because the calculated allowance was
9 more than the estimated direct project costs at the time of signing, it was determined
10 that there would be no cost to Divert for the project. Since contract signing, WA Rate
11 Schedule 900 ("RS-900") Biomethane Receipt Services was established for the
12 transportation of biomethane, so Divert has signed a service agreement under RS-900.

13 **Q. Why did the Company undertake the project?**

14 A. This project was a response to a customer request for RNG transportation service. This
15 project also supports decarbonization.

16 **Q. How will customers benefit from the project?**

17 A. This project will provide a new gas supply to Longview, Washington.

18 **Q. What work has been completed and when will the project be placed in service?**

19 A. All work has been completed for this project except site commissioning labor. This
20 project was placed into service in April 2026.

21 **Q. What are the estimated costs for the project?**

22 A. Costs for the project are provided in Table 3 below.

1

Table 3 – Divert RNG Interconnect Costs

Funding Project	Description	In-Service	2026 Plant Addition Costs
FP-323432	Install Regulator Station	2026/04	\$334,874
FP-323434	Install Odorizer	2026/04	\$1,189,268
FP-323435	Install Meter Set	2026/04	\$105,381
Total			\$1,629,523

2

4. Reinforcement Oak Harbor 3000 Feet 4-Inch Pipeline (FP-324581)

3

Q. Please describe the Oak Harbor reinforcement project.

4

A. The project is a reinforcement project to connect main on the East and West sides of Ault Field Road. The project consists of approximately 3,000 feet of 4-inch PE main across United States (“U.S.”) Navy property.

5

6

Q. Why did the Company undertake the project?

7

A. This project was required to address a pressure issue in Oak Harbor when a 2023 project could not be completed due to permitting issues. During the 2023 project, Cascade discovered that what was originally thought to be a county right-of-way was, in actuality, property of the U.S. Navy. Cascade completed part of the project in 2023 in the county right-of-way but had to wait to complete the rest of the project to permit with the U.S. Navy.

8

9

10

11

12

Q. How will customers benefit from the project?

13

A. Customers will benefit from increased reliability of the distribution system and higher available gas pressures during cold weather events.

14

15

Q. Did the Company consider alternative ways to meet the need for the project?

16

A. The alternative to address the pressure issue would have been to install 8,000 feet of 4-inch HP pipe and a regulator station and acquire a private easement to install the

17

1 pipeline. However, this distribution connection was chosen because it was the more
2 cost-effective option.

3 **Q. Are there any offsetting O&M cost savings associated with this project?**

4 A. No. O&M cost savings associated with this project have not been identified.

5 **Q. What work has been completed and when will the project be placed in service?**

6 A. This project is complete and was placed in service in April 2026.

7 **Q. What are the estimated costs for the project?**

8 A. Estimated total cost for the project is \$1,273,408.

9 **Q. Was this project included in Cascade's last IRP?**

10 A. No. This project was not in the 2025 IRP. This project was budgeted for 2024 but due
11 to permitting it did not start construction until 2025. Original estimates for the project
12 did not meet the \$1,000,000 IRP threshold.

13 **5. Mount Vernon Highway 9 6-Inch HP Replacement Project (FP-324799)**

14 **Q. Please describe the Mount Vernon Highway 9 6-Inch HP Replacement Project.**

15 A. This project installed approximately 400 feet of new 6-inch HP steel pipeline via
16 underground boring to avoid conflicts with the planned culvert being installed by the
17 Washington State Department of Transportation ("WSDOT").

18 **Q. Why did the Company undertake the project?**

19 A. WSDOT is installing a culvert that impacts the existing location of the 6-inch HP main
20 on State Highway 9, near the intersection of State Highway 9 and Big Lake Road in
21 Mount Vernon.

22 **Q. How will customers benefit from the project?**

23 A. The project allows Cascade to retain the ability to serve the customers downstream of
24 the project area without risk of conflict with the new culvert.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. No alternatives were considered. The HP feed was required for service to customers
3 and could not have been retired.

4 **Q. What work has been completed and when will the project be placed in service?**

5 A. Construction was completed and the new pipeline was placed into service in March
6 2026.

7 **Q. What are the estimated costs for the project?**

8 A. Estimated cost for the total project is \$1,003,827.

9 **6. Replacement of 6-Inch Oak Harbor Distribution Pipe (FP-324932)**

10 **Q. Please describe the Oak Harbor Distribution Pipe Replacement project.**

11 A. This project is to install approximately 3,000 feet of new 6-inch distribution pressure
12 pipeline in Oak Harbor, replacing existing steel pipe.

13 **Q. Why did the Company undertake the project?**

14 A. The existing 6-inch steel distribution pressure pipeline has a leak at the intersection of
15 State Route 20 and SE Pioneer Way, identified in October 2016. The leak has been
16 continuously monitored for migration and attempts have been made to pinpoint the
17 location of the leak. Cascade attempted two separate weeklong repairs at multiple
18 locations around the leak, based on leak investigation records. Both identification of
19 the specific leak location and repairs were unsuccessful.

20 **Q. How will customers benefit from the project?**

21 A. Benefits of this project are the remediation of the leaking pipe which would be retired,
22 and the district would no longer need to continuously monitor the leak, while overall
23 system capacity is maintained through the replacement of the retired piping.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. Yes, the alternative to proposed project was to continue leak repair attempts, as night
3 work, until the leak can be located and repaired. Given the costs of the previous repair
4 attempts, Cascade determined that a full replacement was the most cost-effective
5 option.

6 **Q. Are there any offsetting O&M cost savings associated with this project?**

7 A. The project will allow Cascade to avoid the costs of continuous monitoring of the leak
8 and instead conduct leak surveys following standard Company procedures.

9 **Q. What work has been completed and when will the project be placed in service?**

10 A. Design and permitting work are in progress, construction is scheduled to start in early
11 summer 2026 and the new pipeline placed into service in August 2026.

12 **Q. What are the estimated costs for the project?**

13 A. Estimated cost for the total project is \$1,145,384.

14 **7. *Relocation Nooksack Bridge (FP-325414)***

15 **Q. Please describe the Nooksack Bridge Relocation project.**

16 A. This project is a proposed installation of about 1,500 feet of new 6-inch HP steel main
17 using horizontal directional drilling (“HDD”). The new 6-inch pipeline will increase
18 capacity from the existing 4-inch pipeline.

19 **Q. Why did the Company undertake the project?**

20 A. This is a forced relocation by WSDOT. WSDOT is making a bridge improvement that
21 requires relocation and removal of the Company’s existing pipe from the bridge.
22 Cascade is increasing the size of the pipe to avoid the need to replace the line if future
23 load growth requires additional capacity.

1 **Q. How will customers benefit from the project?**

2 A. Cascade is required to relocate existing infrastructure when it conflicts with state or
3 local projects. The new line will also provide added capacity in the area, reducing
4 pressure loss in the system.

5 **Q. Did the Company consider alternative ways to meet the need for the project?**

6 A. The relocation requirement did not present available alternatives to the project. Cascade
7 did consider excavation as a construction option, but excavation was impractical given
8 depth and elevation changes.

9 **Q. What work has been completed and when will the project be placed in service?**

10 A. Cascade has completed the majority of the design work. WSDOT provided some
11 additional design parameters that changed the Company's design process to
12 accommodate. The estimated in-service date is September 2026.

13 **Q. What are the estimated costs for the project?**

14 A. The estimated costs for the project are \$1,295,276.

15 **8. Main Replacement Arsenal Way Bremerton (FP-319992)**

16 **Q. Please describe the Main Replacement Arsenal Way Bremerton project.**

17 A. The project is the replacement of approximately 2,863 feet of 8-inch steel HP main in
18 accordance with Cascade's MAOP Determination and Validation Plan. Existing 8-inch
19 pipeline segments are being replaced with 8-inch steel HP main.

20 **Q. Why did the Company undertake the project?**

21 A. The Company undertook this project to address integrity and regulatory compliance
22 concerns associated with portions of the 8-inch Bremerton HP Line that was installed
23 in 1971. The pipeline segment was identified in Cascade's MAOP Determination and
24 Validation Plan as lacking sufficient documentation to validate its MAOP.

1 Replacement was determined to be the most appropriate option to address the
2 documentation deficiencies and ensure MAOP validation, given the age of the pipeline
3 segment. This approach ensured compliance with regulatory requirements and the
4 safety and reliability of the Company's distribution system.

5 **Q. How will customers benefit from the project?**

6 A. Customers will benefit from this project through improved safety, reliability, and
7 long-term system integrity. The project addresses documentation gaps, allows the
8 Company to safely continue operation at the current MAOP, and replaces facilities with
9 higher integrity management risk. The 8-inch Bremerton HP Line supplies the
10 Bremerton distribution system; therefore, replacing and downrating portions of this line
11 allow Cascade to continue providing safe and reliable natural gas service to its
12 customers.

13 Additionally, the project improves system efficiency by establishing a higher
14 documented design pressure, which reduces reliability concerns within the Bremerton
15 distribution system and supports the Company's ability to meet future customer
16 demand in the area.

17 **Q. Did the Company consider alternative ways to meet the need for the project?**

18 A. Yes. The Company evaluated alternative approaches to address the identified need.
19 One alternative considered was removing the affected pipeline segments from service
20 and performing a pressure test to validate the MAOP. However, pressure testing would
21 have presented additional challenges compared to replacement, including maintaining
22 service to customers during the testing period and managing the increased safety risks
23 associated with testing older pipeline facilities with higher integrity management risk.

1 A second alternative considered was downrating the MAOP of the pipeline segments
2 to a pressure level supported by historical operating data. This option was not selected
3 because downrating would have constrained Cascade’s ability to reliably serve existing
4 customers within the Bremerton distribution system.

5 **Q. When will the project be placed in service?**

6 A. This project is expected to be in service by the end of 2026.

7 **Q. What are the estimated costs for the project?**

8 A. The total capital investment for this project is \$1,986,423 for 2026.

9 **9. Richland 12-Inch HP Reinforcement Phase 2 (FP-320159)**

10 **Q. Please describe Richland 12-Inch HP Reinforcement Phase 2 project.**

11 A. This project is to address the deficit on the existing 6-inch and 8-inch Richland HP
12 lateral. The 8-inch HP line extending north to Richland, Washington, is at capacity and
13 cannot support core growth in Richland. Over the last ten to fifteen years, Richland and
14 nearby Kennewick have experienced significant growth, which has taxed the Richland
15 HP system. This project will install three and a half miles of 12-inch HP steel pipe
16 along Columbia Park Trail and SR-240 to connect the planned upgrade of the
17 Richland Y-Gate Town Border Station (“TBS”) and Phase 1 of the Richland HP
18 Reinforcement Project.

19 **Q. Why did the Company undertake the project?**

20 A. This project was undertaken to address the deficit and meet long-term core growth
21 predictions in Kennewick and Richland.

22 **Q. How will customers benefit from the project?**

23 A. This project addresses the deficit on the Richland HP lateral and will support predicted
24 core growth. This project also provides a back feed to the Richland lateral and supports

1 Cascade's long term plan of retiring the Kennewick Gate and retiring or downrating
2 the 6-inch HP steel line out of the Kennewick Gate which is vintage pipe and was
3 identified in Cascade's MAOP Determination and Validation Plan as lacking sufficient
4 documentation to validate the pipeline segments MAOP.

5 **Q. Did the Company consider alternative ways to meet the need for the project?**

6 A. Yes. Two alternatives were discussed in detail in Cascade's 2025 IRP filing. The first
7 alternative consisted of upgrading the existing Kennewick Gate and then replacing and
8 or uprating the existing 6-inch Richland HP lateral out of the Kennewick Gate. The
9 second alternative was to install a new gate station in North Pasco and then install a
10 11.5-mile 12- inch steel HP lateral across the Columbia River tying into the end of the
11 6-inch and 8-inch north Richland lateral within the Hanford U.S. Department of Energy
12 ("DOE") site. After vetting both alternatives, the Richland HP reinforcement was
13 chosen as the lowest cost alternative.

14 **Q. Are there any offsetting O&M cost savings associated with this project?**

15 A. No.

16 **Q. What work has been completed and when will the project be placed in service?**

17 A. Significant design work has been completed on this project and permitting is in
18 progress. The project will be placed in service in 2027.

19 **Q. What are the estimated costs for the project?**

20 A. The estimated costs for this project are \$20,504,692.

1 **Q. Please describe any significant project changes between what was described in the**
2 **IRP and how it's being described in this testimony.**

3 A. Estimated costs for the project have increased since Cascade's 2025 IRP. In particular,
4 anticipated construction costs have increased based on design and permitting due to the
5 specific construction methods required to complete the project. The project requires
6 HDD at three locations that are anticipated to be more costly due to need for a 30-inch
7 conductor casing that will be installed and removed at a 100-foot depth due to updated
8 design and geotechnical requirements.

9 **Q. Despite the increased construction costs, is this project still preferable to the**
10 **other alternatives identified in the 2025 IRP?**

11 A. Yes. With the amount of work completed to date, including pipeline design, permitting,
12 geotechnical, and survey work, this project is still preferred to the other alternatives.
13 The alternatives considered would also likely have similar increased costs of
14 construction due to unknown circumstances, permitting requirements, and construction
15 issues.

16 **10. Reinforcement of Richland Y-Gate (FP-320144)**

17 **Q. Please describe the Reinforcement of Richland Y-Gate project.**

18 A. This project consists of upgrading the Richland Y-Gate by installing larger pipe and
19 facilities and Cascade adding facilities to take over regulation to connect the planned
20 Phase 2 of the Richland HP Reinforcement Project.

21 **Q. Are there any offsetting O&M cost savings associated with this project?**

22 A. Completion of this project in conjunction with the 12-inch Richland HP Reinforcement
23 Phase 2 will allow for the retirement of the Kennewick Gate, eliminating the O&M
24 costs required to maintain an aging facility.

1 **Q. What work has been completed and when will the project be placed in service?**

2 A. Significant design work has been completed on this project, and the project will be
3 placed in service in 2026.

4 **Q. What are the estimated costs for the project?**

5 A. The estimated costs for this project are \$3,618,907.

6 **11. *Richland Y-Gate Upgrade (FP-320155)***

7 **Q. Please describe the Richland Y-Gate Upgrade.**

8 A. This project is associated with the Reinforcement of Richland Y-Gate (FP-320144)
9 project. The Richland Y-Gate upgrade will connect the TBS to the Williams Northwest
10 Pipeline to address the deficit on the existing 6-inch and 8-inch Richland HP lateral.
11 This project covers the cost for Williams to upgrade their facility, which will include a
12 larger pipeline tap, a larger meter, and larger piping and facilities that connect to the
13 Cascade facility.

14 **Q. What work has been completed and when will the project be placed in service?**

15 A. Significant design work has been completed on this project, and the project will be
16 placed in service in 2026.

17 **Q. What are the estimated costs for the project?**

18 A. The Williams costs for this project are estimated to be \$3,368,581.

19 **12. *Replace Wapato HP Line Main at Railroad Crossings (FP-326397)***

20 **Q. Please describe the FP-326397 project.**

21 A. The project will replace the 4-inch HP main beneath two railroad crossings in
22 Toppenish to allow the operating pressure on the previously completed portion of the
23 4-inch Wapato HP Replacement project (FP-321116) to be increased.

1 **Q. Why did the Company undertake the project?**

2 A. The project was undertaken to support increased core growth in Wapato and validate a
3 pipeline segment that was identified in Cascade's MAOP Determination and Validation
4 Plan as lacking sufficient documentation to validate the pipeline segment's MAOP.

5 **Q. How will customers benefit from the project?**

6 A. Cascade customers will benefit from the project since it will support long-term core
7 growth in Wapato and increase operational reliability and safety.

8 **Q. Did the Company consider alternative ways to meet the need for the project?**

9 A. Yes, alternatives were discussed in detail in Cascade's 2023 IRP filing, including an
10 option to install a new gate station in Donald, Washington, and provide a back feed to
11 Wapato by running 30,600 feet of 4-inch HP steel pipe. This option would have
12 provided a secondary source to the Zillah-Toppenish HP system and would have
13 allowed for the existing 4-inch steel Wapato HP line to be taken out of service and
14 pressure tested to meet MAOP validation requirements. This option was not chosen,
15 however, due to higher cost associated with the new gate station.

16 **Q. Are there any offsetting O&M cost savings associated with this project?**

17 A. Upon completion of the project, the pressure will be increased on the 4-inch Wapato
18 HP Line resulting in the removal of regulator station R-87 in Toppenish and eliminating
19 O&M costs for that facility.

20 **Q. What work has been completed and when will the project be placed in service?**

21 A. Some design work has been completed on the project. The project is scheduled to be
22 placed in service in 2026.

1 **Q. What are the estimated costs for the project?**

2 A. The estimated cost for the project is \$1,252,751.

3 **Q. Please describe any significant project changes since the project was described in**
4 **the IRP.**

5 A. Phasing out the auger bore as a separate project was a change from the 2023 IRP. At
6 the time of the 2023 IRP, Cascade did not know that the permitting and land acquisition
7 for the bore would be delayed and phased. This project was not included in the 2025
8 IRP because Cascade had assumed that the project was going to be completed in 2025.
9 No other changes to project scope or costs are anticipated.

10 **13. 8-Inch Yakima HP Replacement Project Phase 2 (FP-326638)**

11 **Q. Please describe 8-Inch Yakima HP Replacement Project Phase 2.**

12 A. Design and planning for the 8-inch Yakima HP main replacement project began in
13 2019. The original project scope included replacement of approximately 4,367 feet of
14 8-inch steel HP main along Terrace Heights Drive in Yakima, Washington, as
15 described in my testimony in Docket UG-240008 (FP-316046).¹⁰ The project
16 experienced multiple delays due to difficulties obtaining required easements necessary
17 to complete the full scope.

18 In 2025, continued challenges in securing the final easement led Cascade to
19 divide the project into two phases. Phase 1, completed in 2025, consisted of replacing
20 approximately 2,287 feet of pipe located on the east side of the Yakima River and a
21 portion on the west side. FP-326638 represents Phase 2 of the project and includes
22 replacement of approximately 1,440 feet of 8-inch diameter steel HP main. This phase

¹⁰ *Wash. Utils. & Transp. Comm'n v. Cascade Nat. Gas Comm'n*, Docket UG-240008, Direct Testimony of Patrick C. Darras, Exh. PCD-1T at 62-64 (Mar. 29, 2024).

1 involves replacing the existing pipeline segment crossing the Yakima River along
2 Terrace Heights Drive with new 8-inch diameter steel HP main.

3 **Q. Why did the Company undertake the project?**

4 A. The Company undertook this project to address integrity and regulatory compliance
5 concerns associated with portions of the 8-inch Yakima HP line that were installed in
6 1956. These pipeline segments were identified in Cascade's MAOP Determination and
7 Validation Plan as lacking sufficient documentation to validate their MAOP. Given the
8 age of the pipeline segments and the absence of required records necessary to confirm
9 MAOP, replacement was determined to be the most prudent and effective option. This
10 approach ensures compliance with regulatory requirements and maintains the safety
11 and reliability of the Company's distribution system.

12 **Q. How will customers benefit from the project?**

13 A. Customers benefit from this project because it addresses documentation gaps necessary
14 to safely continue operating the pipeline segments at their current MAOP and replaces
15 pre-1970 pipeline facilities that present a higher integrity management risk. The 8-inch
16 Yakima HP line serves as a critical supply source for the Yakima distribution system.
17 Replacing these pipeline segments allows Cascade to continue providing safe and
18 reliable natural gas service to its customers. In addition, the replacement establishes a
19 higher, fully documented design pressure, which improves operational efficiency,
20 reduces reliability constraints within the Yakima distribution system, and supports
21 Cascade's ability to continue serving existing customers and accommodate future
22 growth in the area.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. Yes. Cascade considered alternative approaches to address the need for this project.
3 One alternative evaluated was removing the pipeline segments from service and
4 conducting a pressure test to validate the segment's MAOP. However, pressure testing
5 presented additional challenges compared to replacement, including the difficulty of
6 maintaining service to customers during the testing process and increased safety risks
7 associated with testing pre-1970 pipeline facilities that have higher integrity
8 management risks. A second alternative considered was downrating the MAOP of the
9 pipeline segments to a conservative level based on historical operating pressures. This
10 option was not selected because downrating would have imposed operational
11 constraints and limited Cascade's ability to reliably serve existing customers.
12 Ultimately, replacement was determined to be the most prudent option to address
13 safety, reliability, and service continuity concerns.

14 **Q. Are there any offsetting O&M cost savings associated with this project?**

15 A. No, there are no offsetting O&M cost savings.

16 **Q. When will the project be placed in service?**

17 A. This project is expected to be in service by the end of 2026 with some additional work
18 expected in 2027.

19 **Q. What are the estimated costs for the project?**

20 A. The total capital investment for this project is \$1,368,612 in 2026 and \$251,875 for
21 2027.

1 **Q. Was the project described in the IRP?**

2 A. No, the project was not included in the IRP because it is not related to core growth and
3 is a safety-related project.

4 **14. Prosser 3-Inch HP Project (FP-320004)**

5 **Q. Please describe the Prosser 3-Inch HP project.**

6 A. The 3-inch Prosser HP project consists of the installation of approximately 5,750 feet
7 of 4-inch diameter steel HP main in Prosser, Washington. Completion of this project
8 will allow approximately 2,100 feet of the existing 3-inch Prosser HP line to be retired
9 and approximately 4,155 feet to be downrated to distribution pressure. The project
10 replaces 3-inch line with a 4-inch line, which is considered an equivalent replacement
11 because 3-inch pipe is no longer a standard pipe size.

12 **Q. Why did the Company undertake the project?**

13 A. The Company undertook this project to address integrity and regulatory compliance
14 concerns associated with portions of the 3-inch Prosser HP Line that were installed
15 between 1956 and 1964. These pipeline segments were identified in Cascade's MAOP
16 Determination and Validation Plan as lacking sufficient documentation to validate their
17 MAOP. Installation of a new segment of HP main, along with the retirement and
18 downrating of the existing pipeline segments, was determined to be the most
19 appropriate option to address the documentation deficiencies and ensure MAOP
20 validation, given the age of the pipeline segments.

21 **Q. How will customers benefit from the project?**

22 A. Customers will benefit from this project through improved safety, reliability, and long-
23 term system integrity. The project addresses documentation gaps associated with
24 pre-1970 pipeline segments that are necessary to safely continue operation at the

1 current MAOP and replaces facilities with higher integrity management risk. The
2 3-inch Prosser HP Line supplies the Prosser distribution system; therefore, replacing
3 and downrating portions of this line allows Cascade to continue providing safe and
4 reliable natural gas service to its customers. In addition, the project improves system
5 efficiency by establishing a higher documented design pressure, which reduces
6 reliability concerns within the Prosser distribution system and supports the Company's
7 ability to meet future customer demand in the area.

8 **Q. Did the Company consider alternative ways to meet the need for the project?**

9 A. Yes. The Company evaluated alternative approaches to address the identified need.
10 One alternative considered was removing the affected pipeline segments from service
11 and performing a pressure test to validate the MAOP. However, pressure testing would
12 have presented additional challenges compared to replacement, including maintaining
13 service to customers during the testing period and managing the increased safety risks
14 associated with testing pre-1970 pipeline facilities with higher integrity management
15 risk. A second alternative considered was downrating the MAOP of the pipeline
16 segments to a pressure level supported by historical operating data. This option was not
17 selected because downrating would have constrained Cascade's ability to reliably serve
18 existing customers within the Prosser distribution system.

19 **Q. Are there any offsetting O&M cost savings associated with this project?**

20 A. No, there are no offsetting O&M cost savings.

21 **Q. What work has been completed and when will the project be placed in service?**

22 A. The project design has been completed and permitting is in progress. The project is
23 expected to be in service by the end of 2026.

1 **Q. What are the estimated costs for the project?**

2 A. The total capital investment for this project is \$2,795,037.

3 **Q. Was the project included in the IRP?**

4 A. No, the project was not included in the IRP because it is not related to core growth and
5 is a safety-related project.

6 **15. Nookachamps Creek Relocation (FP- 322143)**

7 **Q. Please describe the Nookachamps Creek Relocation project.**

8 A. This project is to relocate approximately 1,000 feet of a 6-Inch HP pipeline from the
9 bridge over Nookachamps Creek at Knapp Road in Mount Vernon to underneath the
10 creek using HDD.

11 **Q. Why did the Company undertake the project?**

12 A. The 6-inch steel HP line is currently attached to a bridge on Knapp Road. The pipeline
13 is sitting on two of the outer pipe guides. There are a total of eight guides, but the
14 pipeline does not have contact with six due to pipe arching. This puts stress on the
15 pipeline due to inadequate support and is out of compliance with Cascade's
16 requirements on unsupported span.

17 **Q. How will customers benefit from the project?**

18 A. This project provides customer benefits by enhancing system safety, ensuring
19 regulatory compliance, and lowering long-term operational costs. By replacing the
20 existing HP above-ground crossing with a subsurface installation, the project improves
21 infrastructure resilience and mitigates risks associated with external exposure or
22 physical damage. Furthermore, the move to a below-ground crossing resolves an
23 outstanding compliance issue while eliminating above ground inspections, ultimately
24 leading to lower O&M expenses for customers.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. Yes. Cascade considered adjusting the pipe guides to remove the line arching, but there
3 is little room for adjustment on the existing pipe guides. This alternative may have
4 required replacement of the hangers, and it was unknown if this option would indeed
5 resolve the arching issue.

6 **Q. Are there any offsetting O&M cost savings associated with this project?**

7 A. Yes, reduced inspection requirements by eliminating an above ground crossing will
8 lower O&M associated with this crossing. Placing the pipe underground will also
9 eliminate the O&M cost to recoat the pipe and or maintain or replace hangers.

10 **Q. What work has been completed and when will the project be placed in service?**

11 A. Design and permitting work are in progress, with construction scheduled to start in
12 2027 and the new pipeline placed into service in 2027.

13 **Q. What are the estimated costs for the project?**

14 A. The estimated costs for the project are \$176,864 in 2026 and \$960,093 in 2027.

15 **16. Williams Gate Station (FP-317063 and FP-324760)**

16 **Q. Please describe Williams Gate Station projects.**

17 A. These projects reinforce the Grey's Harbor lateral by installing a new Gate Station in
18 Elma to back feed the lateral and provide an additional source of gas to the lateral. The
19 new gate station is comprised of two parts: the Williams tap and gate facilities
20 (FP-317063); and the Cascade facilities to take custody of the gas and then provide
21 odorization and regulation (FP-324760).

22 **Q. Why did the Company undertake the project?**

23 A. The Grey's Harbor lateral is an 8-inch HP steel line that runs 40 miles in length from
24 McCleary to Aberdeen, running parallel to Highway 12 that was installed in 1964. The

1 lateral serves the communities of McCleary, Elma, Satsop, Montesano, Aberdeen, and
2 Hoquiam. The lateral serves residential and commercial customers and has some LV
3 customers at the end of the lateral in Aberdeen. The lateral has experienced core growth
4 over the years and requires a reinforcement to meet core growth predicted while
5 maintaining required end of line delivery pressures.

6 **Q. How will customers benefit from the project?**

7 A. This project provides three benefits to customers by improving infrastructure capacity,
8 stability, and reliability. By increasing capacity on the 8-inch Grey's Harbor Line, the
9 project directly supports regional industrial expansion and core growth. Additionally,
10 it enhances end-of-line pressure on the lateral, which improves the differential to
11 regulator stations and mitigates the risk of choke flow during extreme weather events.
12 Finally, the establishment of a second gate for the Grey's Harbor lateral creates a
13 redundant feed, significantly increasing both operational flexibility and overall system
14 reliability.

15 **Q. Did the Company consider alternative ways to meet the need for the project?**

16 A. Yes. Alternatives for this project were discussed in Cascade's 2025 IRP. Cascade
17 identified the project and one alternative, to install a compressor station along the
18 lateral to boost the end-of-line delivery pressures to meet predicted core growth design
19 requirements. The compressor alternative was rejected due to higher costs and concerns
20 regarding the ability to acquire land for a compressor and associated permitting.

21 **Q. Are there any offsetting O&M cost savings associated with this project?**

22 A. No.

1 **Q. What work has been completed and when will the project be placed in service?**

2 A. Land was acquired in 2022 for the Satsop Gate under FP-317062. Design will be
3 completed in 2026, and construction is planned for 2027. The projects are anticipated
4 to be placed into service in 2027.

5 **Q. What are the estimated costs for the project?**

6 A. The Williams Gate Station (FP-317063) is anticipated to cost \$2,911,987, and the
7 odorization and regulation project (FP-324760) is anticipated to cost \$1,434,968.

8 **Q. If applicable, please describe any significant project changes between what was
9 described in the IRP and how it's being described in this testimony.**

10 A. The project timing has changed since the IRP. In the 2025 IRP the timing was for 2027
11 design and 2028 construction. Based on deficit timing needs, the project has been
12 moved to 2026 design and 2027 construction.

13 **17. Havekost Road 6-Inch Reinforcement Project (FP-318620)**

14 **Q. Please describe the Havekost Road 6-Inch Reinforcement project.**

15 A. This project will install 7,825 feet of 6-inch medium-density polyethylene MDPE pipe
16 starting at Havekost Road and then heading west through existing easement to reinforce
17 the western side of Anacortes.

18 **Q. Why did the Company undertake the project?**

19 A. This project will address a pressure deficit on the west side of Anacortes and will
20 support core growth in Anacortes to maintain reliable supply of pressure during cold
21 weather events.

22 **Q. How will customers benefit from the project?**

23 A. Customers will benefit from greater reliability of gas availability and pressure during
24 cold weather events and the ability to meet core growth demand.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. Yes. Cascade considered installing a 6,000-foot, 4-inch steel extension of the HP
3 system and construction of a new regulator station site, to directly support the western
4 side of Anacortes. The distribution system trunk line in the project was chosen as the
5 lower cost alternative.

6 **Q. Are there any offsetting O&M cost savings associated with this project?**

7 A. No. O&M cost savings have not been identified with this project.

8 **Q. What work has been completed and when will the project be placed in service?**

9 A. The project is scheduled to begin construction in 2027 with an estimated in-service date
10 in October 2027.

11 **Q. What are the estimated costs for the project?**

12 A. The estimated cost for the project is \$2,229,743 in 2027.

13 **Q. Was the project included in the IRP?**

14 A. This project was not in the 2025 IRP as an oversight. It should have been included
15 because it is for core growth and was in the 2024 and 2025 budget.

16 **18. Camano Island Exposure Replacement (FP- 322391)**

17 **Q. Please describe the Camano Island Exposure Replacement project.**

18 A. Camano Island Exposure Replacement project is a compliance-driven project to
19 remediate a 6-inch steel HP pipeline exposure via installation of approximately 200
20 feet of soft armoring.

21 **Q. Why did the Company undertake the project?**

22 A. This project is to address a bank exposure on the 6-inch Whidbey Island HP line in
23 Skagit Bay. The 6-inch Whidbey Island HP line runs 20 miles from Stanwood to Oak
24 Harbor and serves the Whidbey Island naval base. The pipe exposure is against the

1 bank which is exposed to the public and does not have protection from external forces.
2 During flooding events tree limbs and debris have run into the pipe which leaves the
3 pipe susceptible to outside forces, which puts additional stress on the pipe and may
4 cause integrity concerns like coating damage and/or dents and gouges to the steel pipe.

5 **Q. How will customers benefit from the project?**

6 A. This project will address the integrity concerns with the pipe exposure in the bank of
7 the bay and continue to allow us to provide reliable service to the Whidbey Island
8 service territory which includes a military base.

9 **Q. Did the Company consider alternative ways to meet the need for the project?**

10 A. Yes. The Company considered other options to address the pipeline exposure. One
11 alternative considered using HDD installation across the bay to replace the exposed
12 pipeline and to partially bore the cliff into the bay and to use a coffer dam during
13 construction to tie into the existing concrete cased pipe on the bottom of the channel.
14 A second alternative was hard armoring techniques to address the exposed pipeline. A
15 third alternative that was considered was rerouting the Whidbey Island feed to the north
16 by extending from La Conner and completing an alternate Skagit Bay crossing in a
17 more desirable location that is easier for HDD installation. This option had significantly
18 more cost since it would require 13 miles of HP steel and has been eliminated from
19 consideration. The soft armoring option was chosen due to constructability limitations
20 with an HDD installation and permitting limitations with hard armoring.

1 **Q. Are there any offsetting O&M cost savings associated with this project?**

2 A. No offsetting O&M cost savings have been identified with this project. The district is
3 doing additional inspections on the exposure, but the inspections are being incorporated
4 into other inspections in the area.

5 **Q. What work has been completed and when will the project be placed in service?**

6 A. The soft armoring has been designed and permitting is currently in progress. The
7 project will be in service in 2027.

8 **Q. What are the estimated costs for the project?**

9 A. The estimated costs for the project are \$4,099,520.

10 **19. Pasco Convair/Clark 6-Inch Reinforcement Project (FP-326975)**

11 **Q. Please describe Pasco Convair/Clark 6-Inch Reinforcement project.**

12 A. This project will install roughly 16,000 feet of 6-inch PE main on the Northeast side of
13 Pasco along Glade North Road from Clark Road to Convair Street.

14 **Q. Why did the Company undertake the project?**

15 A. This project will reinforce and bring pressure and capacity to the eastern portion of
16 Pasco which has been experiencing growth near the airport and growth within the
17 established distribution system as existing customers expand their loads. This has
18 resulted in modeling pressures below design requirements. The project will support the
19 distribution system that feeds that area, bringing increased pressure and additional
20 available capacity to existing customers and growth potential to an expanding area.

21 **Q. How will customers benefit from the project?**

22 A. Customers will benefit from increased pressure and reliability that come from a
23 reinforced and looped distribution system. This will not only allow additional growth
24 but also maintain reliable service to existing customers connected to this system.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. Yes. The Company originally considered a shorter project, which has since been
3 deemed infeasible because of the need to cross the railroad corridor further south where
4 there were substantial distribution lines on either side of the railroad easement. The
5 combination of road moratoriums on either side and poor boring conditions across the
6 railroad prohibited construction. Additionally, while that option would address
7 modelled pressure requirements, it would not provide significant additional capacity.
8 The proposed route will bring substantial reinforcement to the area of concern, not only
9 reinforcing existing needs, but allowing for future growth in a developing area.

10 **Q. Are there any offsetting O&M cost savings associated with this project?**

11 A. No.

12 **Q. What work has been completed and when will the project be placed in service?**

13 A. Planning and permitting will occur in 2026, with construction taking place in 2027.

14 **Q. What are the estimated costs for the project?**

15 A. The estimated costs for the project are \$1,754,122 in 2027.

16 **Q. Was this project included in the 2025 IRP?**

17 A. No. This project was identified in 2026.

18 **20. *Walla Walla Orchard Street Reinforcement Project (FP-327013)***

19 **Q. Please describe the Walla Walla Orchard Street Reinforcement project.**

20 A. This project will install approximately 1,800 feet of 8-inch PE from the existing 8-inch
21 trunkline coming out of regulator station R-07 and tie into the 4-inch trunkline on
22 Orchard Street and Chase Avenue.

1 **Q. Why did the Company undertake the project?**

2 A. The far end of the system in Walla Walla, near the airport, is below design pressures
3 criteria on a design day basis due to core growth occurring at the outskirts of the system.

4 **Q. How will customers benefit from the project?**

5 A. The project will promote continued system reliability to customers in the area and meet
6 core growth needs.

7 **Q. Did the Company consider alternative ways to meet the need for the project?**

8 A. Yes. The Company evaluated several alternative reinforcement strategies before
9 moving forward with the current project scope. While a 4-inch reinforcement was
10 technically viable for pressure requirements, it was ultimately deemed inefficient due
11 to excessive gas velocity and pressure droop. Upgrading to a 6-inch reinforcement
12 offered marginal improvements in pressure, yet it failed to reach the performance
13 benchmarks provided by the 8-inch standard. Additionally, Cascade considered
14 localized looping near the airport and Assumption Catholic School; however, these
15 smaller-scale installations lacked the comprehensive system stability provided by the
16 primary design.

17 **Q. Are there any offsetting O&M cost savings associated with this project?**

18 A. Possibly. The system will have increased reliability in cold weather, eliminating the
19 potential need for manual bypassing to maintain service.

20 **Q. What work has been completed and when will the project be placed in service?**

21 A. This project is scheduled to be in service in 2027.

22 **Q. What are the estimated costs for the project?**

23 A. Estimated costs for the project are \$1,040,793 in 2027.

1 **Q. Was this project included in Cascade's 2025 IRP?**

2 A. No. This project was identified after the 2025 IRP was substantially complete.

3 **21. Pasco 6-Inch HP Reinforcement Project (FP-321511)**

4 **Q. Please describe Pasco 6-Inch HP Reinforcement project.**

5 A. This project consists of installing five miles of 6-inch steel HP pipe on Clark Road from
6 the Attalia Gate on North Railroad Avenue to North Road 68 in Pasco, Washington.
7 The project also requires a new regulator station at North Road 68 and Burns Road to
8 tie into the existing distribution system.

9 **Q. Why did the Company undertake the project?**

10 A. The Pasco HP system is currently served by three isolated gate stations, the North Pasco
11 Gate, the Pasco Gate, and the Attallia/Burbank Heights Gate. The North Pasco Gate
12 serves north Pasco from the Columbia River east to the airport and north of
13 Interstate 182. The Pasco Gate serves south Pasco south of Interstate 182 from the
14 Columbia River to Highway 395. The Attallia/Burbank Heights Gate serves the 8-inch
15 Attalia lateral, which serves Pasco east of Highway 395. The Attallia/Burbank Heights
16 Gate station and lateral was looped with the Wallula Gate station and lateral in 2020.
17 The areas served by the three gate stations are generally bound by Interstate 182 and
18 Highway 395. Over the last 15 years, Pasco has seen significant subdivision growth in
19 northwest Pasco, which has taxed the North Pasco Gate and the HP system out of that
20 gate station, causing a capacity deficit in northern Pasco. This project will alleviate this
21 capacity deficit by providing additional capacity for north Pasco developments.

22 **Q. How will customers benefit from the project?**

23 A. This project will address the high-pressure deficit in Pasco and will allow Cascade to
24 continue to support core growth. This project also supports Cascade's long-term plan

1 of retiring the North Pasco Gate and feeding the Pasco HP system off the
2 Attallia/Burbank Heights Gate. During peak demand over the last couple of years, the
3 North Pasco Gate has required bypassing by Williams Northwest Pipeline to maintain
4 Cascade's end of line deliveries.

5 **Q. Did the Company consider alternative ways to meet the need for the project?**

6 A. Yes, two alternatives were discussed in detail in Cascade's 2023 IRP and 2025 IRP.
7 Both alternatives required upgrading the North Pasco Gate and either replacing the
8 4-inch HP steel pipeline out of the gate or uprating the existing 4-inch HP steel pipeline
9 out of the gate. Costs between the alternatives were comparable but construction on the
10 existing 4-inch steel along North Road 68, which is an arterial, would be challenging
11 and would have additional cost due to restoration and traffic control requirements.

12 **Q. Are there any offsetting O&M cost savings associated with this project?**

13 A. No.

14 **Q. What work has been completed and when will the project be placed in service?**

15 A. Significant design has been completed on this project and permitting and easements
16 required for the project are still in progress. The project will be placed in service in
17 2027.

18 **Q. What are the estimated costs for the project?**

19 A. The estimated costs for this project are \$10,352,241.

20 **Q. If applicable, please describe any significant project changes between what was
21 described in the IRP and how it's being described in this testimony.**

22 A. Costs have been updated to reflect recent contractor bid pricing in this area.

1 **22. *Wenatchee Pedestrian Bridge Project (FP-326392)***

2 **Q. Please describe Wenatchee Pedestrian Bridge project.**

3 A. This project is a forced relocation project to accommodate construction of a pedestrian
4 bridge across the Columbia River by the city of Wenatchee. The project will require
5 several relocations of the existing 8-inch distribution steel main that is in conflict with
6 the new bridge supports. This project will relocate four sections using eight 8-inch
7 Stoppers (Side Out or Bottom Out) to replace 700 feet of 8-inch steel distribution main
8 in conflict with the City’s project.

9 **Q. Why did the Company undertake the project?**

10 A. The city of Wenatchee is requiring Cascade to relocate its main in conflict with the new
11 bridge pier supports. The 8-inch distribution pressure steel main is the sole feed for
12 East Wenatchee and cannot be shut down or abandoned.

13 **Q. How will customers benefit from the project?**

14 A. Benefits of this project allows for city improvements and maintains the integrity of the
15 distribution system that feeds East Wenatchee.

16 **Q. Did the Company consider alternative ways to meet the need for the project?**

17 A. No alternatives are available to maintain the single feed to East Wenatchee. Replacing
18 sections in conflict is the most cost-effective solution.

19 **Q. Are there any offsetting O&M cost savings associated with this project?**

20 A. No.

21 **Q. What work has been completed and when will the project be placed in service?**

22 A. Construction started in 2025 but has been delayed due to required work by other
23 utilities. Accordingly, construction and relocation of Cascade’s remaining pipeline is

1 on hold and will resume in late 2026. The project is estimated to be complete and in
2 service in early 2027.

3 **Q. What are the estimated costs for the project?**

4 A. Estimated cost for the total project is \$2,381,016.

5 **23. East Finley 4-Inch HP Replacement Project (FP-322639)**

6 **Q. Please describe the East Finley 4-Inch HP Replacement Project.**

7 A. The East Finley 4-Inch HP Replacement project consists of the replacement of
8 approximately 2,498 feet of 4-inch diameter steel HP main in Finley, Washington.

9 **Q. Why did the Company undertake the project?**

10 A. The project will address integrity and regulatory compliance concerns associated with
11 portions of the 4-inch East Finley HP line installed in 1967. The pipeline segment was
12 identified in Cascade's MAOP Determination and Validation Plan as lacking sufficient
13 documentation to validate their MAOP.

14 **Q. How will customers benefit from the project?**

15 A. Customers will benefit from this project through improved safety, reliability, and long-
16 term system integrity. The project addresses documentation gaps associated with
17 pre-1970 pipeline segments that are necessary to safely continue operation at the
18 current MAOP and replaces facilities with higher integrity management risk. The
19 4-inch Finley HP Line supplies natural gas to large volume customers east of Finley,
20 Washington; therefore, replacement allows Cascade to continue to serve Cascade's
21 customer base with a safe and reliable natural gas system. In addition, the project
22 improves system efficiency by establishing a higher documented design pressure,
23 which reduces reliability concerns within the East Finley distribution system and
24 supports the Company's ability to meet future customer demand in the area.

1 **Q. Did the Company consider alternative ways to meet the need for the project?**

2 A. Yes. The Company evaluated alternative approaches to address the identified need.
3 One alternative considered was removing the affected pipeline segments from service
4 and performing a pressure test to validate the MAOP. However, pressure testing would
5 have presented additional challenges compared to replacement, including maintaining
6 service to customers during the testing period and managing the increased safety risks
7 associated with testing pre 1970 pipeline facilities with higher integrity management
8 risk. A second alternative considered was downrating the MAOP of the pipeline
9 segments to a pressure level supported by historical operating data. This option was not
10 selected because downrating would have constrained Cascade's ability to reliably serve
11 existing customers.

12 **Q. Are there any offsetting O&M cost savings associated with this project?**

13 A. No.

14 **Q. What work has been completed and when will the project be placed in service?**

15 A. Cascade is currently in the process of hiring an engineering consultant for the survey,
16 permitting, and design work. This project is expected to be in service by the end of
17 2027.

18 **Q. What are the estimated costs for the project?**

19 A. The total capital investment for this project is \$1,964,791 in 2027.

20 **V. MINOR PROJECT PLANT ADDITIONS FOR 2026 AND 2027**

21 **Q. Is Cascade also seeking recovery of additions to plant in service for projects less**
22 **than one million dollars in cost?**

23 A. Yes. Exhibit PCD-3 provides summaries for projects with actual or estimated costs less
24 than one million dollars that are planned to be placed in service in each of the

1 provisional years in this multi-year rate case (2026 and 2027). Table 4 below
2 summarizes the request for both Specific and Programmatic projects discussed in
3 Exhibit PCD-2.

4 **Table 4 – Minor Plant Additions by Year**

Description	WA 2026 Cascade Plant Additions	WA 2027 Cascade Plant Additions
Total Specific Projects	\$8,821,128	\$5,013,212
Total Programmatic Projects	\$1,984,095	\$2,156,760
Total Provisional Additions - Minor Projects	\$10,805,223	\$7,169,972

5 **VI. HISTORICAL PLANT ADDITIONS**

6 **Q. Did Cascade incur any costs for projects completed in 2024 and 2025 that will not**
7 **be recovered in rates in the multi-year rate plan approved in Docket UG-240008?**

8 A. Yes. Cascade had five projects that were included in its last multi-year rate plan that
9 incurred additional costs in 2024 and 2025. These projects were subject to various
10 recovery limits and included in project-specific review in Cascade’s annual provisional
11 plant reports.¹¹ I discussed the Burlington 20-inch project (FP-322776) above and will
12 discuss the other four projects below.

13 *1. System Safety & Integrity Mains Replace-WA (FP-318186)*

14 **Q. Is this the same SSIP program you previously discussed?**

15 A. Yes. This is a yearly project that incurred significant additional costs for main
16 installations in 2024.

¹¹ Docket UG-240008, 2024 Annual Provisional Plant Report, Attachment A (Apr. 30, 2025); Docket UG-240008, 2025 Annual Provisional Plant Report, Attachment A (Apr. 30, 2026).

1 **Q. What was the actual cost incurred by Cascade in 2024 for the SSIP Mains Replace**
2 **program?**

3 A. The actual costs for SSIP mains replacements in 2024 were \$6,818,342.

4 **Q. How much of this was included in Cascade's rate base as part of the multi-year**
5 **rate plan?**

6 A. Cascade was limited to the amount authorized by the Commission in Docket
7 UG-240008, which was \$3,504,095.

8 **Q. Did Cascade describe the additional 2024 costs in its 2024 Annual Provisional**
9 **Plant Report?**¹²

10 A. Yes. A portion of the significant cost variance between SSIP Mains Replace program
11 planned and actuals costs was related to how SSIP projects are budgeted. When
12 budgeted, equal amounts are allocated to mains replacement (FP-318186) and services
13 replacement (FP-318187). When determining the project scope each year, the total
14 amount available between the two funding projects is considered and the project scope
15 is sized based on the total amount available to replace pipe meeting the criteria of SSIP.
16 Based on a given project scope, the total footage of main and the number of service
17 lines may vary each year. Based on this variability, more or less may be required for
18 main replacement versus what is needed for service line replacement, and dollars are
19 reallocated between FP-318186 and FP-318187 based on the project scope.

20 Additionally, in 2024, the SSIP mains replacement project in Kelso,
21 Washington, incurred higher than expected costs. The higher costs were related to
22 additional restoration required by WSDOT that was not anticipated when the project

¹² Docket UG-240008, 2024 Annual Provisional Plant Report, Attachment B at 3 (Apr. 30, 2025).

1 started, together with increased contractor costs due to unanticipated ground conditions
2 encountered during construction.

3 **Q. What actions did the Company take to mitigate the increase in costs?**

4 A. Unfortunately, the additional costs related to restoration were unavoidable. The SSIP
5 identified the required spending on mains in 2024, and the Company incurred higher
6 costs for the Kelso projects due to the specific location and WSDOT requirements.

7 **Q. Did Cascade spend less for service line replacements in 2024?**

8 A. Yes. Cascade's actual cost for SSIP service line replacements was \$1,483,151,
9 compared to the authorized \$3,511,692.

10 **Q. Was Cascade allowed to net the two projects for cost recovery purposes in its 2024
11 Annual Provisional Plant Report?**

12 A. No. While Cascade combines the two funding projects' budgets to address needs during
13 the year, for ratemaking purposes the two funding projects were considered separate.
14 These projects were also subject to project-specific review of provisional plant, not a
15 portfolio review. The result was that current rates reflect the lower forecasted cost for
16 SSIP mains replacement costs and the lower actual costs for SSIP service lines
17 replacement costs.

18 **Q. Please state both the Commission-authorized amount and the actual amount spent
19 on this project.**

20 A. In Docket UG-240008 the Commission authorized \$3,504,095 for rate year 2024 for
21 this funding project. The total actual cost incurred in 2024 was \$6,818,342, as seen in
22 the Docket UG-240008 2024 Provisional Plant Report with a reported net variance of
23 \$3,314,247.

1 **Q. Was this project still the best course of action despite the increased costs, and why**
2 **should the Company be allowed to recover the additional amount?**

3 A. Yes. The SSIP remained the best course of action because it is designed to reduce risks
4 associated with early vintage steel and plastic pipe, improve public safety and system
5 reliability, and address corrosion, equipment-failure, MAOP-documentation, and
6 missing-data concerns. SSIP main replacement must be replaced in place so additional
7 restoration and higher construction costs due to ground conditions are unavoidable and
8 should be recovered.

9 **2. *Wapato 4-Inch Replace Project (FP-321116)***

10 **Q. Please describe the Wapato 4-Inch project.**

11 A. This project replaced roughly 33,500 feet of 4-inch HP steel pipe that runs from
12 Toppenish to Wapato, Washington. Over time, core growth in Wapato has gradually
13 increased to exceed the capacity of the lateral and has created a pressure deficit. The
14 existing 4-inch Wapato HP was installed in the 1950s and is currently lacking MAOP
15 documentation. The pipeline segment was identified in Cascade's MAOP
16 Determination and Validation Plan, as lacking sufficient documentation to validate the
17 pipeline segment's MAOP. Replacement was chosen as the best option to address the
18 missing documentation and to validate the pipeline segment's MAOP, based on the age
19 of the pipeline segment. Due to the lack of MAOP documentation, this line cannot be
20 uprated to support growth and must be replaced to address the deficit and MAOP
21 validation concerns.

1 **Q. Please state both the Commission-authorized amount and the actual amount spent**
2 **on this project.**

3 A. In Docket UG-240008, the Commission authorized \$16,645,249 for this project. The
4 total actual cost incurred were \$17,471,256 in 2024 and \$13,289 in 2025, resulting in
5 a cumulative net variance of \$839,296 for the two years.¹³

6 **Q. What was the cause of the increase in project costs?**

7 A. The increase in project costs was driven primarily by increased contractor costs due to
8 field conditions encountered during construction. Poor ground conditions during
9 construction required the HDD design to change to a casing installation, which required
10 additional permitting and a redesign, and this change delayed the contractor and
11 required the contractor to remobilize, which increased the contractor construction cost.

12 **Q. What actions did the Company take to mitigate the increase in costs?**

13 A. During the challenging field conditions on the HDD, Cascade worked with the
14 contractor to mitigate the drilling issues by installing a temporary casing to avoid re-
15 permitting. The temporary casing was not successful for this drill, and redesign was
16 required.

17 **Q. Was this project still the best course of action despite the increased costs, and why**
18 **should the Company be allowed to recover the additional amount?**

19 A. Yes. The project remained the best course of action because it addresses both MAOP
20 validation concerns and long-term core growth needs in Wapato. The HDD challenges
21 and additional cost for the casing were unanticipated but required to complete the
22 project to address the MAOP issue and meet the growth needs in the area.

¹³ Docket UG-240008 2024 Annual Provisional Plant Report, Attachment A; Docket UG-240008 2025 Annual Provisional Plant Report Attachment A.

1 **3. *South Kennewick Gate and Reinforcement Project (FP-319061)***

2 **Q. Please describe this project.**

3 A. This project consists of installing 2,500 feet of 8-inch plastic pipe in Kennewick,
4 Washington. The project was part of a larger effort in 2025 that included a new South
5 Kennewick Gate and regulator station. The south Kennewick distribution system was
6 isolated from HP and regulatory stations, and subdivision growth in Kennewick created
7 a pressure deficit.

8 **Q. Please state both the Commission-authorized amount and the actual amount spent**
9 **on this project.**

10 A. In Docket UG-240008, the Commission authorized \$2,258,569 for this project. The
11 total actual cost incurred was \$2,599,064, with a reported variance of \$340,495.¹⁴

12 **Q. What was the cause of the increase in project costs?**

13 A. The increase in project costs was caused by changed field conditions, schedule delays,
14 and additional restoration costs during construction. The gas line alignment of the
15 project had to be changed due to a mislocated water main in Olympia Street, requiring
16 additional traffic control and a change order from the contractor. Additionally, the local
17 irrigation district did not drain the canal as originally communicated to Cascade, which
18 delayed construction, required repair to the canal liner, and additional controlled
19 density fill in the irrigation right-of-way. The City of Kennewick also required
20 specialized stamped concrete in the roundabout area, which also increased the
21 contractor repair costs.

¹⁴ Docket UG-240008, 2025 Annual Provisional Plant Report, Attachment A.

1 **Q. What actions did the Company take to mitigate the increase in costs?**

2 A. Cascade worked with the contractor and city to minimize cost increases related to the
3 field condition changes and schedule delays.

4 **Q. Was this project still the best course of action despite the increased costs, and why**
5 **should the Company be allowed to recover the additional amount?**

6 A. Yes. The project remained the most effective course of action because the fundamental
7 need to resolve the pressure deficit and support core growth in Kennewick was not
8 altered by changes in cost or schedule. In major utility infrastructure developments,
9 variances in construction costs, unforeseen construction obstacles and timeline delays
10 are standard occurrences that do not inherently compromise the overall viability or
11 necessity of a project. Because the infrastructure was executed to secure required
12 system capacity and reliability, recovery of the actual cost overrun is an appropriate
13 step to align regulatory cost accounting with the necessary investments made to
14 maintain core public service standards.

15 **4. *Yakima 8-Inch HP Replacement Phase 1 Project (FP-316046)***

16 **Q. Please describe this project.**

17 A. The original scope for this project involved replacing approximately 4,367 feet of
18 8-inch steel HP main along Terrace Heights Drive in Yakima, Washington. This project
19 was originally scheduled to be completed in 2024, but delays in obtaining required
20 easements pushed the project to 2025.

21 In 2025, due to continued difficulties in securing the final easement, Cascade
22 divided the project into two phases. Phase 1, which was completed in 2025, consisted
23 of replacing approximately 2,287 feet of pipe located on the east side of the Yakima

1 River and a portion on the west side. Phase 2 consists of replacing the remaining
2 1,440 feet of pipe crossing the Yakima River and is discussed above (FP-326638).

3 The project was undertaken because the affected pipeline segments were
4 identified in Cascade's MAOP Determination and Validation Plan as lacking sufficient
5 documentation to validate MAOP, and replacement was selected as the best option
6 based on the age and condition of the segments.

7 **Q. Please state both the Commission-authorized amount and the actual amount spent**
8 **on this project.**

9 A. In Docket UG-240008, the Commission authorized \$3,037,183 for this project. The
10 total actual cost incurred was \$3,977,643, for a reported variance of \$940,460.¹⁵

11 **Q. What was the cause of the increase in project costs?**

12 A. The cost variance for this project was driven primarily by the delays associated with
13 obtaining easements, construction challenges, and higher than expected contractor
14 costs. Breaking the work into two phases required modifications to the original design,
15 resulting in increased engineering and design costs. During construction, Cascade
16 incurred additional contractor charges as a result of challenges encountered while
17 installing the pipe segment crossing the Burlington Northern Santa Fe railroad
18 easement, as well as greater quantities of several bid items compared to the original
19 estimates. The items with increased quantities included traffic control, bulk materials,
20 surface restoration, and additional tie-ins. Contractor pricing was also higher than
21 initially projected, and the additional charges that were the result of the construction
22 challenges were not anticipated when the project was originally estimated and bid.

¹⁵ Docket UG-240008, 2025 Annual Provisional Plant Report, Attachment A at 2 (Line No. 2).

1 **Q. What actions did the Company take to mitigate the increase in costs?**

2 A. Cascade mitigated cost increases by diligently reviewing, documenting, and approving
3 contractor quantity increases. Cascade also worked with the contractor to minimize and
4 efficiently resolve the unanticipated construction challenges to avoid standby charges.

5 **Q. Was this project still the best course of action despite the increased costs, and why**
6 **should the Company be allowed to recover the additional amount?**

7 A. Yes. This project remained the best course of action because it addressed MAOP
8 documentation gaps, replaced pre-1970 pipeline segments with higher integrity-
9 management risk, and supports safe and reliable service to the Yakima distribution
10 system. The project needed to be phased to remove the aging infrastructure from
11 operation and help the system gain some of the increased capacity to support winter
12 operations to maintain system reliability which supports recovery of the additional
13 amount.

14 **VII. CONCLUSION**

15 **Q. Does this conclude your Direct Testimony?**

16 A. Yes.