

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 83

In the Matter of

CASCADE NATURAL GAS
CORPORATION,

2023 Integrated Resource Plan.

ORDER

DISPOSITION: 2023 INTEGRATED RESOURCE PLAN ACKNOWLEDGED IN
PART

This order memorializes our decision, made and effective at our March 14, 2024 Special Public Meeting, concerning Cascade Natural Gas’s (CNG) 2023 Integrated Resource Plan (IRP). We acknowledge CNG’s energy efficiency-related action items and do not acknowledge CNG’s long-term plan for the reasons described in Staff’s final comments, attached as Appendix A, and in this order.

I. INTRODUCTION AND PROCEDURAL HISTORY

On June 6, 2023, CNG filed its 2023 IRP, including its long-term plan for a least-cost, least-risk portfolio of resources and a near-term action plan. Commission Staff filed its opening comments on CNG’s 2023 IRP on October 5, 2023, asserting CNG needed to provide additional information and analysis to justify acknowledgment of its action plan.¹ In its reply comments, CNG filed an amended action plan providing “further detail and specific investments the Company is seeking acknowledgment on.”² Staff filed its final comments on December 22, 2023, asserting “CNG’s reliance on a variety of unreasonable inputs and omission of other important inputs leads Staff to recommend the Commission not acknowledge the Company’s long-term plan.”³ Days before Staff filed its final comments, the Oregon Court of Appeals ruled that the Oregon Department of Environmental Quality’s (DEQ) Climate Protection Plan (CPP) rules were invalid.⁴

¹ Staff Opening Comments at 2-6 (Oct. 5, 2023).

² CNG Reply Comments at 2 (Nov. 2, 2023) (referencing Attachment A).

³ Staff Final Comments at 1 (Dec. 22, 2023).

⁴ *Northwest Natural Gas Co. v. Env’t Quality Comm’n*, 329 Ore. App. 648, 652, 542 P.3d 71 (2023).

The Oregon Citizens' Utility Board (CUB); the Alliance of Western Energy Consumers (AWEC); the Green Energy Institute (GEI) at Lewis and Clark Law School; Citizens Climate Lobby, Climate Reality Project; Climate Solutions; Columbia Riverkeeper; Electrify Bend; Oregon Physicians for Social Responsibility; Sierra Club; the Environmental Center; and 350Deschutes intervened for limited purposes and provided written and oral comments in this docket.⁵ Several members of the public and representatives of other organizations provided written or oral comments on CNG's 2023 IRP.

II. IRP PROCESS

A. Purpose

The objective of the IRP process is to ensure an adequate and reliable supply of energy at the least cost and least risk to the utility and its customers in a manner consistent with the public interest.⁶ The IRP process provides an opportunity for broad input from a range of stakeholders and public participation. This input and the IRP guideline requirements are meant to ensure a detailed and wide-ranging review of resource options, technology advancements, pricing scenarios, and risk profiles, and to test the utility's conclusions. The IRP process is intended to be iterative. Where weakness in the analysis or issues are identified, stakeholder participation can help identify alternatives and improvements to the action plan or analysis in the next IRP. Utilities should respond proactively to the concerns of stakeholders and consider alternatives.

Ultimately, an acknowledged plan will become a working document for use by the utility, the Commission, and other interested parties in Commission proceedings.⁷

B. Timing and Content

We require regulated energy utilities to prepare and file IRPs within two years of acknowledgment of the utility's last plan.⁸ Oregon's IRP guidelines require a minimum 20-year planning period, and include the following core elements: (1) identification of capacity and energy needs to bridge the gap between expected loads and resources; (2) identification and estimated costs of all supply-side and demand-side resource options; (3) construction of a representative set of resource portfolios; (4) evaluation of

⁵ Green Energy Institute at Lewis & Clark Law School, Citizens Climate Lobby, Climate Reality Project, Climate Solutions, Columbia Riverkeeper, Energize Bend, Oregon Physicians for Social Responsibility, Sierra Club, The Environmental Center, and 350Deschutes are collectively referred to as "Climate Advocates."

⁶ *In the Matter of the Investigation into Least-Cost Planning for Resource Acquisitions by Energy Utilities in Oregon*, Docket No. UM 180, Order No. 89-507 at 2 (Apr. 20, 1989).

⁷ *Id.* at 7.

⁸ OAR 860-027-0400(3).

the performance of the candidate portfolios over the range of identified risks and uncertainties; (5) selection of a portfolio that represents the best combination of cost and risk for the utility and its customers; and (6) creation of an action plan that is consistent with the long-run public interest as expressed in Oregon and federal energy policies.⁹

The primary outcome of the IRP process, after the presentation of the plan and review by the Staff and stakeholders, is the selection of a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and the customers, culminating in a Commission acknowledgment decision that indicates whether the Commission finds the plan and any specific near-term action items reasonable overall.

C. Action Plan

An important product of the IRP process is an action plan. Where the preferred portfolio calls for new supply-side and demand-side resources or resource actions to meet system needs, the action plan will include these resource actions. The action plan identifies the steps the company will take within the next two to four years to move toward the preferred portfolio.

D. Acknowledgment

Our acknowledgment of an IRP means that the Commission finds that the utility's preferred portfolio and action plan is reasonable at the time of acknowledgment.¹⁰ We may decline to acknowledge specific action items if we are not satisfied that the proposed resource decision presents the least-cost, least-risk option for customers.

Acknowledgment is not a guarantee of cost recovery, nor is consistency with an acknowledged plan a requirement for recovery of resource costs in rates.

Acknowledgment provides guidance for later ratemaking proceedings, which are the forum for the Commission to make its ultimate decision to approve or disapprove a resource action as prudent or reasonable, and thereby subject to recovery in customer rates. Consistency with an acknowledged plan may be used as evidence in support of favorable ratemaking treatment, but the utility still must demonstrate that its actions remained prudent and reasonable, particularly in light of any material changes in the facts, circumstances, and assumptions that supported the IRP acknowledgment.

⁹ *In the Matter of Idaho Power Company, 2019 Integrated Resource Plan*, Docket No. LC 74, Order No. 21-184, at 2 (June 4, 2021).

¹⁰ *In the Matter of Public Utility Commission of Oregon, Investigation into Integrated Resource Planning Requirements*, Docket No. UM 1056, Order No. 07-002 at 16 (Jan. 8, 2007).

III. CNG'S 2023 IRP

CNG's 2023 IRP presents its preferred resource portfolio and roadmap for meeting demand needs as well as complying with CPP emissions reductions requirements across its Oregon service territory.

The company's original action plan focused on resource planning, environmental policy, avoided cost, demand side management, renewable natural gas, distribution system planning, and IRP process. These action items focused on investigations and development of modeling tools for future planning processes, the acquisition of Community Climate Investments (CCIs), procurement of renewable natural gas, and energy efficiency projects, but did not include details of specific investments in distribution projects it would make in a given time frame. After reviewing Staff and stakeholder comments and participating in a Commission workshop, CNG refined its action plan and clarified it was only seeking acknowledgment of the purchase of CCIs, procurement of renewable natural gas, and energy efficiency projects.

CNG's 2023 IRP represents the company's first use of PLEXOS modeling software. Similar to its prior modeling tools, PLEXOS allows CNG to develop and analyze resource portfolios to help determine the type, size, and timing of resources matched to forecast requirements, but additionally allows for carbon emission modeling.

IV. DISCUSSION

A. Introduction

At our March 14, 2024 Special Public Meeting, we acknowledged CNG's energy efficiency -related action items and did not acknowledge CNG's long-term plan. We discussed our appreciation for CNG's candor in this IRP process and commended CNG for filing an IRP that approaches what we are looking for in natural gas IRPs as compared to other recent natural gas IRPs. We recognize the difficulty in preparing natural gas IRPs in a changing regulatory and resource environment and appreciate CNG's efforts in the 2023 IRP process.

B. Long-Term Plan

1. CNG IRP

CNG seeks acknowledgment of its long-term plan, including its preferred resource portfolio, forecast, and analyses. In its final reply comments, CNG explains that although the Oregon Court of Appeals invalidated the CPP, its "2023 IRP and several items on the

Action Plan included a lens of meeting the CPP.”¹¹ CNG’s final reply comments object to Staff’s recommendation that the Commission not acknowledge the 2023 IRP’s long-term plan. CNG asserts its IRP “included a transparent IRP process where reasonable inputs and analysis were used in the development of its Top Ranking Portfolio” and that its 2023 IRP was “consistent with previous IRPs that were acknowledged.”¹² CNG explains that much of its analysis in the 2023 IRP was completed in the first half of 2023, and that the “regulatory landscape has rapidly evolved throughout this IRP cycle, particularly in the areas of decarbonization rules and impacts.”¹³ Although CNG believed it had “unclear guidance” on how to develop its IRP in light of significant regulatory changes, it is committed “to being an engaged participant” in efforts to improve IRP development guidance in the future.¹⁴ In its reply comments, CNG agreed to model “non-renewal or retirement of upstream pipeline capacity contracts and the costs and benefits of doing so” in future IRP processes.¹⁵

2. *Staff Recommendations and Stakeholder Comments*

In its final comments, Staff recommends that the Commission not acknowledge CNG’s long-term plan. Staff noted several issues with the long-term plan, including CNG’s “reliance on a variety of unreasonable inputs and omission of other important inputs” such as an “optimistically low” cost for alternative fuels, a reliance on an unreasonably low avoided cost for demand-side measures, and that CNG “overlooked a requirement to use retail prices as a regressor in the demand forecast for” the 2023 IRP.¹⁶

Staff explains it found CNG’s “assumptions about the cost of [renewable natural gas (RNG)] and hydrogen to be insufficiently supported” and that it could not “retain confidence in [CNG]’s capacity expansion modeling.”¹⁷ Staff also finds CNG’s “modeled avoided cost to be unreasonably low and the scope of potential demand-side measures unreasonably narrow” which results in the IRP not being “reasonably expected to maximize alternatives to supply-side resources.”¹⁸ Staff suggests that in the next IRP, CNG “should begin modeling all demand-side measures endogenously in PLEXOS and then plan to pursue those selected for inclusion in the Preferred Portfolio” as “[o]nly modeling for energy efficiency is too narrow a scope of resource selection for planning

¹¹ Cascade Natural Gas Final Reply Comments at 2 (Feb. 14, 2024).

¹² *Id.* at 3.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.* at 6.

¹⁶ Staff Final Comments at 1 (Dec. 22, 2023).

¹⁷ *Id.* at 4.

¹⁸ *Id.* at 5.

purposes.”¹⁹ Staff also concludes CNG’s “demand forecast to be unreasonable, because it omits retail prices as an independent variable.”²⁰

Staff noted CNG “deserves credit for adequately modeling a variety of scenarios” in its 2023 IRP, allowing “the Preferred Portfolio’s performance to be tracked across different futures in comparison to other portfolios.”²¹

CUB agrees with Staff’s recommendation to not acknowledge CNG’s long-term plan.²² CUB notes that “[CNG]’s drastically optimistic alternative supply-side resource modeling carries several ramifications. It understates upcoming costs to consumers of these fuels, undercuts other resource options, such as efficiency measures and electrification, and presents an unrealistic future that enables gas distribution system growth as usual for the gas company.”²³ CUB also explains that it “appreciates Staff’s and Climate Advocates’ examination of [CNG]’s demand-side resource modeling and agrees with Staff that demand-side options were considered too narrowly.”²⁴

Climate Advocates agree with Staff’s recommendation to not acknowledge CNG’s long-term plan, explaining CNG “imposed optimistically low costs of alternative fuels in its model, it limited demand-side measures to energy efficiency only, and it inflated its load forecast.”²⁵ Climate Advocates are concerned “that the company is not evaluating alternatives at the earliest possible opportunity.”²⁶ CUB agrees with Staff’s recommendation to not acknowledge CNG’s long-term plan, noting concerns with CNG’s modeling practices.²⁷

3. *Resolution*

We appreciate CNG’s approach to the IRP review process and note that CNG’s IRP is approaching what we expect from natural gas IRPs. In particular, we appreciate CNG’s modeling of multiple scenarios and the resulting ability to track the Preferred Portfolio’s performance across different futures in comparison to other portfolios. We also appreciate CNG’s candor regarding the challenges in some scenarios to reach policy targets. On balance, however, we conclude that the issues identified by Staff with CNG’s long-term plan are significant enough to warrant non-acknowledgment.

¹⁹ *Id.*

²⁰ *Id.* at 6.

²¹ *Id.*

²² Oregon Citizens’ Utility Board Final Comments at 2 (Feb. 14, 2024).

²³ *Id.* at 1-2.

²⁴ *Id.* at 2.

²⁵ Climate Advocates Final Comments at 2 (Feb. 14, 2024).

²⁶ *Id.*

²⁷ Oregon Citizens’ Utility Board Final Comments at 1-2 (Feb. 14, 2024).

We are persuaded by Staff's explanation of the deficiencies in CNG's modeling approach related to alternative supply-side assumptions, demand-side measures, and the demand forecast. CNG's assumptions regarding RNG and hydrogen were not sufficiently supported and we agree with Staff that this precludes our ability to have confidence in CNG's capacity expansion modeling. CNG's modeled avoided cost was unreasonably low and the scope of potential demand-side measures was unreasonably narrow. This modeling approach does not allow us to conclude that CNG has adequately maximized alternatives to supply-side resources, especially when electrification is not included as a resource option.

Going forward, we expect electrification to be reflected in natural gas IRPs, especially when IRP modeling results in multiple scenarios where a company is unable to meet CPP goals. We recognize the challenges with modeling the tradeoffs associated with significant increases in electric load, especially during peak hours, and do not wish to be misunderstood as mandating electrification as an outcome. We simply conclude that declining to analyze this compliance option is inconsistent with the spirit of the IRP guidelines, which require utilities to compare resource alternatives—and, by implication, compliance alternatives—on a consistent and comparable basis. Failing to engage this analysis in IRPs perpetuates debates over electrification policy that center on beliefs rather than facts about the energy system.

CNG's modeling approach is also flawed because it omits retail prices as an independent variable. We previously ordered CNG to perform this analysis and CNG failed to do so here.²⁸ We expect this analysis to be conducted so that we can better evaluate the impact of prices on customer counts and use per customer. As Staff explains, the approach to demand forecast does not incorporate the downward pressure on the quantity of gas demanded that higher rates are reasonably expected to have.

There is not one obvious path for meeting the challenges presented by a carbon-constrained future and the requirements of any future DEQ program that may replace the CPP. By engaging with emission reduction alternatives, the IRP can provide sufficient information and analysis for the Commission, Staff, and stakeholders to review and assess the plan and preferred portfolio in the context of this uncertain future.

Finally, we note the discussion in public comments regarding the GTN Xpress pipeline contract, which was acknowledged in CNG's 2018 IRP. Utilities must make reasonable and prudent decisions throughout the life of a resource. The IRP process provides the opportunity to evaluate the retirement of contracts, or other resources, as a potential least-

²⁸ Order No. 21-127 at Appendix A, 11 (Apr. 28, 2021).

cost option for customers. Where a company sees significant differences in cost and value related to contracts or other resources, we expect that those contracts, and the possibility of their non-renewal, will be evaluated in future IRP processes.

C. Action Plan

1. CNG Action Plan

CNG's original action plan contained several components, but after reviewing Staff and stakeholder comments, participating in a Commission workshop, and other engagement, CNG refined its action plan and clarified it was only seeking acknowledgment of the procurement of renewable natural gas and energy efficiency projects. CNG argues that renewable natural gas "should be considered for acknowledgment when it [is] modeled in the IRP as a needed resource acquisition."²⁹ At the March 14 Special Public Meeting, CNG indicated it believed renewable natural gas as a least cost option could be considered for acknowledgment.

Specifically, CNG seeks acknowledgment of:

- Acquisition of 11,950,471 therms of renewable natural gas for the CPP's first compliance period;
- Acquisition of 62, 670,245 therms of renewable natural gas for the CPP's second compliance period;
- Acquisition of 772,570 therms of energy efficiency in 2024;
- Acquisition of 816,866 therms of energy efficiency in 2025;
- Acquisition of 831,951 therms of energy efficiency in 2026; and
- Acquisition of 848,951 therms of energy efficiency in 2027.

CNG had also originally sought acknowledgment of the purchase of CCIs for the first and second CPP compliance periods, however after the Oregon Court of Appeals invalidated the CPP, CNG explained it would "re-evaluate CCI acquisitions in regard to the re-established DEQ program in the 2023 Oregon IRP Update, expected to be filed in March of 2025."³⁰ At the March 14 Special Public Meeting, CNG indicated the CCI related action items should be removed and that its transportation energy efficiency program was currently paused as it awaits additional rulemaking from DEQ.

²⁹ Cascade Natural Gas Final Reply Comments at 4 (Feb. 14, 2024).

³⁰ *Id.* at 3.

2. *Staff Recommendations and Stakeholder Comments*

In its final comments, Staff explains the “only investments [it] recommends the Commission acknowledge are CCIs and energy efficiency.”³¹ Staff also explains that just days before it filed its final comments, the Oregon Court of Appeals invalidated the CPP and that “CCIs may no longer be available for purchase in 2024.”³² Given the timing of the court’s decision, Staff decided “to leave this and other CPP-related recommendations in” its comments. At the March 14 Special Public Meeting acknowledgment meeting, Staff explained it would not oppose a request to remove CCIs as an action item.

Staff also noted that CNG withdrew all distribution investments from its Action Plan, including the Prineville Gate Upgrade, and also withdrew its “non-pipe solutions to medium-term capacity needs in Baker City and Ontario,” including “pilot projects with Energy Trust to acquire targeted energy efficiency that would forego the need for construction projects in these cities.”³³

Staff recommends that the Commission not acknowledge the procurement of RNG because it “is too substantially completed for the Commission to acknowledge in this IRP.”³⁴ Staff did note that despite this recommendation, it “found no evidence that these RNG investments are unreasonable.”³⁵ Finally, Staff suggested that CNG update its line extension allowance policies to better reflect the “incremental CPP compliance cost of providing new gas service.”³⁶

AWEC argues that in light of the Oregon Court of Appeals’ decision invalidating the CPP, CNG should delay all CPP compliance actions until a new program is in place.³⁷ AWEC also supports not acknowledging any specific action items related to the Prineville gate station and Baker City and Ontario reinforcement projects at this time.³⁸ AWEC urges us to direct CNG to continue engaging with transportation customers and perform custom energy efficiency projects.

CUB and Climate Advocates support only acknowledging CCIs and energy efficiency measures.³⁹ CUB contends that despite the Oregon Court of Appeals’ ruling on the CPP,

³¹ Staff Final Comments at 1 (Dec. 22, 2023).

³² *Id.* at 1 FN 2.

³³ *Id.* at 12.

³⁴ *Id.* at 11.

³⁵ *Id.*

³⁶ *Id.* at 17.

³⁷ AWEC Final Comments at 3 (Feb. 14, 2024).

³⁸ *Id.* at 10-12.

³⁹ Oregon Citizens’ Utility Board Final Comments at 2 (Feb. 14, 2024); Climate Advocates Final Comments at 3 (Feb. 14, 2024).

it is operating on the assumption that the CPP is the best model of what the future program will look like and that, barring future revelations indicating otherwise, its analysis and recommendations regarding CCIs remain.⁴⁰ Climate Advocates urge us to require that CNG “report how it is optimizing capacity of its pipelines to benefit customers, as well as modeling non-renewal and retirement of contracts as a sensitivity” as well as requiring that “previously-acknowledged contracts * * * be included as an action item if they will be continued.”⁴¹ Further, CUB and Climate Advocates agree with Staff’s position on line extension allowances.⁴²

3. *Resolution*

We acknowledge CNG’s action plan only as it relates to energy efficiency programs. We decline to order CNG to take any specific action regarding transportation customer energy efficiency. We do, however, note that should responsibility for the emissions of transportation customers be reinstated, we anticipate scrutinizing whether natural gas companies have lost opportunities to have procured that low-cost compliance measure because they have failed to provide stable engagement with transportation customers while awaiting the final details of the new program.

We note that there are both potential costs and reputational impacts associated with programs that customers have already signed up for and that are then not implemented or quickly withdrawn. Any attempt to restart programming in the future may be more difficult as there may be additional costs and it may be more difficult to convince customers to come back. We emphasize that our decision here is a general indication of support for continuing energy efficiency programs, including those for transportation customers. We acknowledge, however, that in the absence of the CPP or a replacement program there will be difficult ratemaking questions around any transportation programs. Consistent with our discussion, we encourage CNG to continue developing transportation energy efficiency programs.

Regarding renewable natural gas, we agree with Staff’s recommendation that CNG’s renewable natural gas action items not be acknowledged because that resource procurement is substantially completed.

Although CNG found low-cost solutions that enabled it to defer all distribution system upgrades and remove them from the current IRP action plan, we recognize that reliability needs for system upgrades will continue to arise in these and other locations. Through

⁴⁰ Oregon Citizens’ Utility Board’s Final Comments at 2 (Feb. 14, 2024); Climate Advocates’ Final Comments at 2 (Feb. 14, 2024).

⁴¹ Climate Advocates’ Final Comments at 5 (Feb. 14, 2024).

⁴² *Id.* at 3.

several natural gas IRP dockets, including CNG’s last IRP Update, PUC Staff has refined a set of expectations for evaluation of natural gas distribution system upgrades that we support and expect CNG to engage with as distribution system needs arise.⁴³

Finally, we note that we agree that CNG’s line extension allowance policies need to be revisited, but that it would be best to do so in a future general rate case. We expect that if CNG does not file a general rate case by early 2025, it will make a separate filing so that we may address CNG’s line extension policies.

V. ORDER

IT IS ORDERED that the 2023 Integrated Resource Plan filed by Cascade Natural Gas is acknowledged, in part, as described in this order and the attached Appendix A.

Made, entered, and effective May 31 2024.



Megan W. Decker
Chair



Letha Tawney
Commissioner



A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001- 0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2).

⁴³ See, e.g., Staff Final Comments at 14-15 (Dec. 22, 2023) (Expectation 9).

**BEFORE THE PUBLIC UTILITY COMMISSION
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Docket No. LC 83

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Staff Final Comments

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1: Executive Summary

The 2023 Natural Gas Integrated Resource Plan (IRP) is Cascade Natural Gas's (the Company or Cascade) first since the Oregon Department of Environmental Quality's Climate Protection Program (CPP) went into effect. Staff recognizes the new challenge that decarbonization represents for Oregon natural gas companies. Two days before Staff's Final Comments were due, the Oregon Court of Appeals ruled the Oregon Department of Environmental Quality's (DEQ) CPP rules to be invalid, placing further regulatory uncertainty on Cascade.¹ In addition, at the federal level, the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) both brought significant change to the utility and energy industries. In the face of these challenges, the public review of Cascade's 2023 IRP represents an important conversation on the evolution that will be necessary in natural gas resource planning.

In Opening Comments, Staff identified a variety of issues with Cascade's 2023 IRP. With the benefit of other parties' Opening Comments, Cascade's Reply Comments, the Commission workshop, and continued engagement with the Company, these Final Comments summarize this proceeding and state Staff's conclusions in three sections: 1) Long-Term Plan, 2) Action Plan, and 3) Line Extension Allowances.

Long-Term Plan

Cascade's reliance on a variety of unreasonable inputs and omission of other important inputs leads Staff to recommend the Commission not acknowledge the Company's long-term plan. Cascade's cost for alternative fuels was optimistically low. Cascade's modeling of demand-side measures relied on an unreasonably low avoided cost and was limited to only energy efficiency, thus reflecting an overly limited role of demand-side measures and inflating future load needs. Cascade's modeling of long-term investments stress-tested the Company's Preferred Portfolio, which provides insight into how the Company's planned investments will perform under a variety of future conditions. However, Cascade overlooked a requirement to use retail prices as a regressor in the demand forecast for this IRP, resulting in the omission of a variable that is reasonably expected to lower demand given the significant rate impacts Cascade predicts. Further, Cascade can enhance future planning efforts by modeling the non-renewal of pipeline contracts as a sensitivity.

Action Plan

The only investments Staff recommends the Commission acknowledge are CCIs and energy efficiency. Cascade's 2023 IRP included limited Action Plan details.² Staff raised this concern in

¹ OPB. *Oregon Court of Appeals finds state carbon reduction rules invalid* December 20, 2023, p 1.

² Staff is aware that due to the Oregon Court of Appeals December 19, 2023 ruling, CCIs may no longer be available for purchase in 2024. Staff plans to leave this and other CPP-related recommendations in this round of comments.

Opening comments and the Company's clarifications in Reply Comments, meetings with Staff, the Company's SB 98 filing in UM 2307, and the Commission workshop have provided more detail. Staff's understanding is that Cascade updated and modified its Action Plan and now is only seeking acknowledgement of CCIs, the RNG, and energy efficiency.

Cascade has withdrawn all distribution investments from this Action Plan, and Staff finds that the procurement of RNG is too far along to be considered for acknowledgement in an IRP. Therefore, at this stage in this proceeding, the Commission has relatively few investments to consider for acknowledgement. However, this proceeding has advanced how distribution system planning can be improved. Several stakeholders discuss how non-energy benefits and costs should be considered. Staff agrees that the non-energy impacts of non-pipe solutions should be considered.

Table 1: Revised Action Plan and Staff Recommendations

Oregon Action Item Number and Description		Staff Recommends	Further Discussion
1	Purchase 236,132 CCIs for compliance with the CPP for compliance period one.	Acknowledge	Section 3
2	Purchase 325,020 CCIs for compliance with the CPP for compliance period two.	Acknowledge	Section 3
3	Procure 11,950,471 therms of RNG or RNG attributes to meet CPP decarbonization for compliance period one.	Not Acknowledge	Section 3
4	Procure 62,670,245 therms of RNG or RNG attributes to meet CPP decarbonization for compliance period two.	Not Acknowledge	Section 3
5	Acquire 772,570 therms of energy efficiency in 2024.	Acknowledge	Section 3
6	Acquire 816,866 therms of energy efficiency in 2025.	Acknowledge	Section 3
7	Acquire 831,951 therms of energy efficiency in 2026.	Acknowledge	Section 3
8	Acquire 848,951 therms of energy efficiency in 2027.	Acknowledge	Section 3

At this stage, little is known publicly about what actions DEQ will take in response. Staff sees the least amount of planning medium- to long- term risk in operating as if the CPP were still in effect, as Oregon will most likely re-introduce the Program before the next IRP is filed.

Line Extension Allowances

Cascade's line extension policy is outdated, does not reflect incremental GHG emission reduction compliance costs associated with providing new gas service, and should be updated.

2: Long-Term Plan

Cascade’s reliance on a variety of unreasonable inputs and omission of other important inputs leads Staff to recommend the Commission not acknowledge the Company’s long-term plan. Cascade’s cost for alternative fuels was optimistically low. Cascade’s modeling of demand-side measures relied on an unreasonably low avoided cost and was limited to only energy efficiency, thus reflecting an overly limited role of demand-side measures and inflating future load needs. Cascade’s modeling of long-term investments stress-tested the Company’s Preferred Portfolio, which provides insight into how the Company’s planned investments will perform under a variety of future conditions. However, Cascade overlooked a requirement to use retail prices as a regressor in the demand forecast for this IRP, resulting in the omission of a variable that is reasonably expected to lower demand given the significant rate impacts Cascade predicts. Further, Cascade can enhance future planning efforts by modeling the non-renewal of pipeline contracts as a sensitivity.

2.1 – Alternative Supply-Side Resource Assumptions

In Opening Comments, Staff found Cascade’s assumptions about the cost of RNG and hydrogen to be insufficiently supported. This has made the modeling of these alternative supply-side resources too optimistic. The Citizens’ Utility Board (CUB) put this into perspective for RNG by showing that the price Cascade is currently paying ranges from **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL].³ In Reply Comments, Cascade conceded this point, writing: **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL].⁴ Staff finds that too significant an error to retain confidence in Cascade’s capacity expansion modeling. Climate Advocates, a joint filing by the Green Energy Institute, Citizens Climate Lobby, Climate Reality Project, Climate Solutions, Columbia Riverkeeper, Energize Bend, Oregon Physicians for Social Responsibility, Sierra Club, The Environmental Center, and 350Deschutes, has concerns about the safety and reliability of hydrogen.⁵ Cascade has no specific action item for an investment in hydrogen. However, Climate Advocates recommends that “any further study of hydrogen should not be subsidized with ratepayer dollars.”⁶ Staff does not see an inappropriate

³ See Docket No. LC 83, CUB, Opening Comments, October 5, 2023, p 6.

⁴ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, p 10.

⁵ See Docket No. LC 83, Climate Advocates, Opening Comments, October 5, 2023, pp 6-7.

⁶ See Docket No. LC 83, Climate Advocates, Opening Comments, October 5, 2023, p 3.

level of expenditure on hydrogen, which remains an operating expense within the reasonable confines of resource planning because Cascade is not seeking acknowledgement of incremental expenditures. Staff finds exploring hydrogen's resource potential remains a reasonable planning endeavor for Cascade and encourages the Company to explore and critique objective third-party sources that could be used to project costs and availability, as well as safety concerns, as part of the TAG process for developing future IRPs.

2.2 – Demand-Side Measures

In Opening Comments, Staff found Cascade's modeled avoided cost to be unreasonably low and the scope of potential demand-side measures unreasonably narrow.⁷ The Company's modeling of demand-side measures in this IRP is therefore not reasonably expected to maximize alternatives to supply-side resources.

Cascade compared the cost-effectiveness of demand-side measures to a CPP compliance cost of \$4.50 per Dekatherm (Dth). This is significantly lower than marginal CPP compliance costs. Cascade's assumed avoided cost should include the marginal cost of acquiring decarbonized gas. Staff recognizes that the Oregon Court of Appeals' ruling invalidating the CPP creates more uncertainty in what the environmental compliance avoided costs will be, however, in UM 2307, the Company seeks to procure RNG under an Oregon statute, SB 98, therefore a higher avoided cost remains relevant, even in the near-term.

While the avoided costs are ultimately an issue for UM 1893, the best means of capturing a granular avoided cost in the next IRP is to endogenously model all demand-side management (DSM) options. For Staff, the full range of gas DSM extends beyond energy efficiency to include demand response and interruptible tariffs. In this IRP, Cascade only modeled energy efficiency demand-side measures that the Energy Trust of Oregon (Energy Trust) included in the RA model, Energy Trust's assessment of deployable, cost-effective energy efficiency using the avoided cost of the last IRP.

Only modeling for energy efficiency is too narrow a scope of resource selection for planning purposes. In the next IRP Cascade should begin modelling all demand-side measures endogenously in PLEXOS and then plan to pursue those selected for inclusion in the Preferred Portfolio.

Climate Advocates recommends Cascade "[p]roactively analyze building electrification as a resource."⁸ Staff agrees. Climate Advocates went further, to recommend the Commission direct the Company to "use consistent methods for incorporating supply-side and electrification incentives in its planning, and to expressly enumerate the electrification incentives incorporated into its analysis, disaggregated by market segment as appropriate (e.g., new vs. existing construction, income-qualified vs. market rate customers)." Staff concurs with this

⁷ See Docket No. LC 83, OPUC Staff, Opening Comments, October 5, 2023, pp 24-38.

⁸ See Docket No. LC 83, Climate Advocates, Opening Comments, October 5, 2023, p 13.

recommendation and notes the topic of electrification may be taken up in more detail in the OPUC process to update its IRP guidelines. However, this recommendation currently falls within a reasonable interpretation of the existing IRP guidelines.⁹

To this end, in LC 81 Avista put forth an effort to model electrification as a resource. This allowed Staff to engage on the modeling questions in more detail. Staff ultimately found that Avista's approach could be improved. For example, Avista only considered incentives that covered the entire project cost for electrification. This may have led to an overestimation of the resource cost of electrification by assuming too high of a required incentive to procure program participation.¹⁰ Regardless, Staff and the Commission appreciated the work and leadership by Avista around electrification in LC 81. Staff encourages Cascade to work with the TAG to explore an approach for modeling electrification as a proactive resource strategy, including identifying and seeking alignment on electrification inputs and assumptions.

2.3 – Stress Testing the Preferred Portfolio

Cascade deserves credit for adequately modeling a variety of scenarios. Cascade's 2023 IRP models a consistent set of portfolios across all six scenarios, which allows the Preferred Portfolio's performance to be tracked across different futures in comparison to other portfolios.

2.4 – Demand Forecast

Staff finds Cascade's demand forecast to be unreasonable, because it omits retail prices as an independent variable. The Commission directed Cascade to perform this analysis and the Company failed to comply with this important directive. Cascade expects RNG procurement to have an upward impact on retail rates. Appendix J of this IRP documents the significant magnitude of the expected bill impact. For example, the Preferred Portfolio shows Schedule 101 residential rates steadily doubling in real terms by 2050.¹¹ However, Cascade's demand forecast does not incorporate the downward pressure on the quantity of gas demanded that higher rates are reasonably expected to have.

Staff finds retail price to be a statistically significant predictor of demand in a case study in Prineville. Staff was unable to reproduce Cascade's automation code, which runs approximately 200 regression models in a single execution of code. Instead, Staff has manually reproduced two of the Company's models, residential customer count and residential use per customer, both in Prineville. Staff found that an increase in rates of one dollar per therm reduces the count of customers by 58 and use per customer by 0.04 therms per month.¹²

⁹ See Docket No. UM 1056, OPUC, Order No. 07-002, January 8, 2007, Appendix A, p 1.

¹⁰ See Docket No. LC 81, OPUC, Staff Final Comments, December 7, 2023, p 4.

¹¹ See Docket No. LC 83, Cascade, 2023 IRP, Appendix J, p 3.

¹² Final Prineville Residential Rate Elasticity Exploration Results.docx.

While Staff has performed a specific illustrative example of the impact of retail price increases on demand at a single gate, Cascade has agreed to perform this analysis on all regression models during this proceeding.¹³ In Reply Comments, the Company made a commitment to present these results in the Company's Final Comments. Staff looks forward to reviewing this important analysis.

Climate Advocates recommends an assumption of zero growth no later than 2027 due to changes in federal and state policy incenting building electrification. By implication, Climate Advocates' recommendation raises the analytic question: What should the reference demand forecast be? This is the outcome assumed to be the central tendency of customer demand for gas. Cascade provided a no-growth load forecast in this IRP in the Company's High Electrification scenario. So, it is not correct to say Cascade failed to take the possible impacts of electrification policy into consideration. What this IRP does not do is assume a high electrification scenario is the most likely outcome. Staff does not see sufficient evidence that Cascade should have made this assumption. In Reply Comments, Cascade proposed developing an end-use model for this purpose.¹⁴ Such a model might better capture near-term impacts of electrification policy that may be missing from the historical data used in the Company's regression analysis.

Climate Advocates wants the Commission to "provide guidance to both gas and electric utilities as to how they should incorporate climate data and provide realistic climate-related demand projections in future resource planning. This guidance should be based on the best available science and informed by climate experts, not just the utilities themselves."¹⁵ Staff finds this to be a valid point. If left to the regulated companies themselves, the assumptions might correlate to what drives the most capital expenditures rather than the representative concentration pathway (RCP) that is most widely identified by climate experts to be representative of the next 20 years. Electric companies are incented to assume high RCPs and gas companies are incented to assume lower RCPs. Indeed, PGE uses RCP 4.5 as its lower bound and RCP 8.5 as the upper bound.¹⁶ PacifiCorp does the same.¹⁷ In Reply Comments, Cascade stated the Company is planning to hire a climate expert and make revisions to the climate-related assumptions as early as the update to this IRP.¹⁸ In response to Climate Advocates' recommendation for the OPUC to provide guidance to the gas and electric utilities on incorporating climate data, Staff will include this as a topic for consideration when the OPUC commences a process to update its IRP guidelines in the coming year.

While adding a range of climate scenarios has value, developing a common understanding of which RCP should be considered the planning case would be helpful too. In LC 81, Staff recommended Avista work with stakeholders on finding the most reasonable method to adjust

¹³ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, p 6.

¹⁴ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, p 6.

¹⁵ See Docket No. LC 83, Climate Advocates, Opening Comments, October 5, 2023, p 14.

¹⁶ See Docket No. LC 80, PGE, 2023 IRP, March 31, 2023, pp 319-320.

¹⁷ See Docket No. LC 82, PacifiCorp, 2023 IRP, March 31, 2023, p 125.

¹⁸ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, p 13.

weather data and pointed to a method known as Multivariate Adaptive Constructed Analogs (MACA), currently employed by Oregon State University’s Institute of Natural Resources, as a reference standard.¹⁹ Staff does not have a strong position on this methodological question, and we see the Company’s TAG workshops as the place for utilities to facilitate this conversation until a widely recognized best practice emerges.

Additionally, akin to the recommendation in Avista’s IRP, before the next IRP, Cascade should work with PacifiCorp to collect the load forecasts used in planning that most closely reflects a building electrification scenario for any overlapping territories. Cascade should discuss with the TAG the extent to which the Company might be able to model the equivalent in its next IRP.

2.5 – Non-Renewal of Contracts

In Opening Comments, Climate Advocates recommends the Commission adopt a similar directive for Cascade as the Commission ordered in LC 79, requiring the Company’s model to have the option of selecting the retirement of a resource.²⁰ Staff agrees. If the retirement of a contract, or any other resource, were a least-cost option for customers, Cascade should be using PLEXOS to identify such opportunities. In Reply Comments, Cascade agrees to incorporate this into the next IRP.²¹

In Opening Comments, Climate Advocates proposed a related directive on excess pipeline capacity. This directive would require Cascade to “uncover the impact to ratepayers if Cascade has secured capacity exceeding its need.”²² Staff finds this directive exists within current IRP guidelines.²³ Excess capacity means that the net present value revenue requirement (impact to ratepayers) can be reduced by portfolios with a better balance between demand and supply. Cascade did, for example, run PLEXOS without the Gas Transmission Northwest’s Xpress pipeline (GTNX) which will upgrade compressor stations in Athol, Idaho, Starbuck, Washington, and Kent, Oregon. Cascade’s modeling in this case found a higher revenue requirement without investing in GTNX.²⁴

While uncovering the impact to ratepayers of various levels of capacity is what this IRP should already be doing, AWEC wants to see more detail on how Cascade is optimizing pipeline capacity. AWEC recommends the Commission direct Cascade to file a report on how revenue from the Company’s pipeline rights is optimized and benefits customers. Staff supports this analysis. AWEC is looking for detailed reporting that could help inform the next IRP by recommending Cascade file this report 180 days after the final Commission order for this IRP. Given several stakeholders’ questions about Cascade’s investment in the GTNX pipeline, which

¹⁹ See Docket No. LC 81, OPUC, Staff Final Comments, December 7, 2023, p 16.

²⁰ See Docket No. LC 79, OPUC, Order No. 23-281, August 2, 2023, p 13.

²¹ See Docket No. LC 79, OPUC, Order No. 23-281, August 2, 2023, p 14.

²² See Docket No. LC 83, Climate Advocates, Opening Comments, October 5, 2023, p 14.

²³ See Docket No. UM 1056, OPUC, Order No. 07-002, January 8, 2007, Appendix A, p 1.

²⁴ See Docket No. LC 83, Cascade, 2023 IRP, June 2, 2023, p 4-24.

became substantially completed before the filing of this IRP, this report will help facilitate greater public understanding of how pipeline operations are modeled as resources in Cascade's IRPs. In Reply Comments, Cascade supported AWEC's proposal.²⁵

2.5 – Recommendations and Expectations

Recommendation 1: Staff recommends the Commission not acknowledge Cascade's long-term plan.

Expectation 1: Cascade should provide the marginal cost of RNG procurement for the avoided cost in UM 1893.

Expectation 2: Cascade should model all known demand-side measures endogenously and procure them after the IRP.

Expectation 3: Before the next IRP, Staff expects Cascade to work with the TAG to identify an approach for considering electrification as a proactive resource strategy.

Expectation 4: Cascade should develop an end-use model for demand forecasting to compare with the Company's econometric models.

Expectation 5: Cascade should model electrification using optimized incentives to avoid overestimating the cost of acquiring electrification from customers.

Expectation 6: Cascade should work with the TAG to identify a PacifiCorp IRP scenario reflecting electrification that Cascade might use to generate a load forecast for its next IRP.

Expectation 7: Cascade should model non-renewal or retirement of pipeline capacity contracts and the costs and benefits of doing so.

Expectation 8: Cascade should file, within 180 days following the final order on Cascade's 2023 IRP, a report discussing and evaluating its pipeline optimization activities, including how those pipeline optimization revenues are being returned to ratepayers.

²⁵ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, pp 5-8.

3: Action Plan

The only investments Staff recommends the Commission acknowledge are CCIs and energy efficiency. Cascade’s 2023 IRP included limited Action Plan details. Staff raised this concern in Opening comments and the Company’s clarifications in Reply Comments, meetings with Staff, the Company’s SB 98 filing in UM 2307, and the Commission workshop have provided more detail. Staff’s understanding is that Cascade updated and modified its Action Plan and now is only seeking acknowledgement of CCIs, the RNG, and energy efficiency.

Cascade has withdrawn all distribution investments from this Action Plan, and Staff finds that the procurement of RNG is too far along to be considered for acknowledgement in an IRP. Therefore, at this stage in this proceeding, the Commission has relatively few investments to consider for acknowledgement. However, this proceeding has advanced how distribution system planning can be improved. Several stakeholders discuss how non-energy benefits and costs should be considered. Staff agrees that the non-energy impacts of non-pipe solutions should be considered.

3.1 – CCI

Cascade agrees with Staff that CCIs appear to be the least-cost form of CPP compliance. CUB estimates the cost per Dth of CCIs to be \$6.52 which is lower than any other decarbonization strategy Cascade models in this IRP.²⁶ The Company plans to max out the amount of CCIs DEQ will allow Cascade to purchase to meet the first compliance period ending in 2024 (10 percent) and the second compliance period ending in 2027 (15 percent). Staff supports this plan and recommends the Commission acknowledge this action item.

Table 2: Planned CCI Purchases

	Compliance Period 1	Compliance Period 2
CCIs	236,132	325,020

Cascade’s plan to purchase CCIs is mindful of the uncertainty of their value relative to other investments.²⁷ The Oregon Court of Appeals ruling contributes to that uncertainty. As DEQ decides on how to proceed with the CPP, the timing, pricing, and cost-effectiveness of CCIs may change.

²⁶ See Docket No. LC 83, CUB, Opening Comments, October 5, 2023, p 2.

²⁷ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, p 4.

3.2 - RNG

Cascade’s procurement of RNG is too substantially completed for the Commission to acknowledge in this IRP. However, Staff has found no evidence that these RNG investments are unreasonable. From the Company’s November 9, 2023 filing in UM 2307, Staff observes that Cascade is currently procuring [BEGIN CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL] RNG than the Company described in LC 83 Reply Comments.²⁸

Table 3: RNG Procurement by Compliance Period in Therms

Docket	Compliance Period 1	Compliance Period 2
LC 83	11,950,471	62,670,245
UM 2307 [BEGIN CONFIDENTIAL]	[REDACTED]	[REDACTED]

[REDACTED] [END CONFIDENTIAL]. Higher costs and lower availability may be providing a real-world constraint.

3.3 – Prineville Gate Upgrade

At the Commission workshop, Cascade withdrew the Company’s request for acknowledgement of the upgrade project.²⁹ In Opening Comments, Staff found some modeling issues that raised questions about the need for the Prineville Gate Upgrade. Cascade has modeled the project’s need based on an unreasonably low assumed temperature, unreasonably altered the definition of a heating degree day from the industry standard, and the Company failed to sufficiently consider alternatives to this capital expenditure. In Reply Comments the Company answered Staff’s modeling questions by stating that the Company’s modeling assumptions of design day temperature and the calibration of an HDD are three years old, carried over from the last IRP.³⁰ At the Commission workshop, the Company confirmed that, at an operating expense of a few thousand dollars, TransCanada can meet the capacity need at the Prineville Gate.

Stakeholder positions on the Prineville Gate Upgrade were mixed in Opening Comments. Climate Advocates opposed the project.³¹ AWEC did not oppose acknowledging the Prineville

²⁸ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, Tables 1 and 2, pp 3 and 4; LC 83 RNG Procurement CONF ES.xlsx.

²⁹ See the 49:18-minute mark at: https://oregonpuc.granicus.com/player/clip/1248?view_id=2&redirect=true&h=817be691765f6cd70bc74d1942692732.

³⁰ See Docket No. LC 83, Cascade, Reply Comments, November 2, 2023, pp 7-8.

³¹ See Docket No. LC 83, Climate Advocates, Opening Comments, October 5, 2023, p 4.

Gate Upgrade.³² AWEC made that position contingent on the relatively low size of the cost estimate.

3.4 – Baker City and Ontario

Cascade has withdrawn the Company's proposed non-pipe solutions to medium-term capacity needs in Baker City and Ontario. In this IRP, Cascade planned to launch pilot projects with Energy Trust to acquire targeted energy efficiency that would forego the need for construction projects in these cities. Energy Trust reports that the required demand-side reductions are not feasible. Therefore, the Company withdrew these action items in Reply Comments.

Cascade should consider procuring demand-side capacity measures from its customers in Baker City and Ontario. In reviewing this IRP, Staff learned that Cascade has only been considering energy measures. The Company has not considered paying customers to reduce demand during design-day temperature events. Such capacity measures are more likely to provide the needed reductions during times of capacity constraint than energy efficiency measures.

In addition to finding too limited a scope of alternatives considered, Staff also finds insufficient detail from Cascade on the expected timing of capacity needs in Baker City and Ontario. Cascade appears to Staff to be looking far enough into the future for expected distribution system capacity needs, but this planning is either not detailed enough or the details are not being included in the text of Cascade's IRP. To make clear the details Staff is looking for in the next IRP, we reference guidance provided in Attachment C of Staff's Final Comments on Avista's 2023 IRP which were as follows.

1. Future distribution system planning should identify the rationale for projects as either Safety/General System Reliability, or Customer Growth/Reliability Related to Growth.
 - a. When proposing growth-driven projects in IRPs the utility should be prepared to present project data on: relationship to CPP compliance strategy, modeling and verified measurement, local load forecast, and assessment of alternatives through the [Non-Pipe Alternative] NPA framework.
2. Future distribution system planning should include an NPA framework in Oregon [including the following attributes]:
 - a. NPA analysis will be performed for supply-side resources (these include but are not limited to all resources upstream of [Cascade's] distribution system and city gates, and supply-side contracts) and for distribution system reinforcements and expansion projects that exceed a threshold of \$1 million for individual projects or groups of geographically related projects (a group of projects that are interdependent or interrelated).

³² See Docket No. LC 83, AWEC, Opening Comments, October 5, 2023, p 11.

- b. NPA analysis will include cost benefit analysis that reflects an avoided GHG compliance cost element consistent with a high cost estimate of future alternative fuels prices. Non-Energy Impacts must be included as part of the NPA analysis.
- c. NPA analysis will include electrification, targeted energy efficiency, targeted demand response, and other alternative solutions.
- d. NPA analysis should look forward five years to allow ample time for evaluation and implementation.
- e. NPA analysis will include an explanation of solutions considered and evaluated including a description of the projected timeline and annual implementation rate for the solutions evaluated, the technical feasibility of the solutions, and the strategy to implement the solutions evaluated.
- f. NPA analysis should include an explanation of the resulting investment selection (either NPA or a traditional investment) including the costs and ranking of the solutions, and the criteria used to rank or eliminate them.
 - i. If a NPA is not selected and the reason is insufficient implementation time, it should include steps the Company will take to perform NPA analysis to provide sufficient implementation time for future projects.
3. Future IRPs should include the results of distribution system planning, including project data and NPA analysis for any proposed traditional investments, and NPA analysis for any proposed NPA.
4. Future IRPs should include a database containing information about feeders, in service dates of pipes, and lowest recent observed pressures.

Cascade should perform and transparently share the details of distribution system modeling recommended in Attachment C of Staff's Final Comments on Avista's 2023 IRP.

4.3 – Non-Energy Impacts

Several stakeholders have weighed in on the consideration of non-energy impacts of NPAs. In Opening Comments, Climate Advocates recommends “the Commission direct Cascade to include project-specific NPA analysis that accounts for non-energy benefits in future IRPs for all capacity expansion projects and groups of geographically-related projects over \$500,000.”³³ To Staff this implies modeling the cost-effectiveness of NPAs from a societal perspective, which Staff already expects Avista to do in future IRPs.³⁴ We expect the same from Cascade. The expectation for this scope of analysis comes from the inclusion of non-energy impacts in the recent Avista General Rate case stipulation in UG 461.³⁵ In contrast, AWEC recommends the

³³ See Docket No. LC 83, Climate Advocates, Opening Comments, October 5, 2023, p 15.

³⁴ See Docket No. LC 81, OPUC, Staff Final Comments, December 7, 2023, p 67.

³⁵ See Docket No. UG 461, OPUC, Order No. 23-384, October 26, 2023, Appendix B, p 15.

Commission avoid widespread policy changes that favor electrification in this docket. In making this recommendation, AWEC highlighted the complexity of evaluating the emissions impact of transferring energy use to electric utilities. AWEC pointed out that such modeling should not use the average emissions from electricity generation. Instead, electrification of gas customer demand should be compared at the margin. Electric utilities' decarbonization can be delayed by electrification. The marginal cost of taking on more electricity customers while decarbonizing electric grids might rival the cost of decarbonizing gas. And decarbonizing electricity may ultimately depend on decarbonized gas.³⁶

Staff expects Cascade to model the NPAs from a societal perspective. This aligns expectations for Cascade with established expectations for NW Natural and Avista. Climate Advocates and AWEC are both referring to a societal perspective. Climate Advocates recommends a consideration of the social benefits. AWEC recommends consideration of the social costs. Staff can see the potential for new insight from modeling resource selection from a societal perspective, yet we note that a societal perspective means that the analysis considers both the social benefits and the social costs. For that reason, the term "impacts" is used to describe the scope of the analysis. Otherwise, the analysis would be biased.

3.5 – Recommendations and Expectations

Recommendation 2: Staff Recommends the Commission acknowledge the purchase of 236,132 CCIs for the CPP's first compliance period.

Recommendation 3: Staff Recommends the Commission acknowledge the purchase of 325,020 CCIs for the CPP's second compliance period.

Recommendation 4: Staff Recommends the Commission not acknowledge the acquisition of 11,950,471 therms of RNG for the CPP's first compliance period.

Recommendation 5: Staff Recommends the Commission not acknowledge the acquisition of 62,670,245 therms of RNG for the CPP's second compliance period.

Recommendation 6: Staff Recommends the Commission acknowledge the acquisition of 772,570 therms of energy efficiency in 2024.

Recommendation 7: Staff Recommends the Commission acknowledge the acquisition of 816,866 therms of energy efficiency in 2025.

Recommendation 8: Staff Recommends the Commission acknowledge the acquisition of 831,951 therms of energy efficiency in 2026.

Recommendation 9: Staff Recommends the Commission acknowledge the acquisition of 831,951 therms of energy efficiency in 2027.

Expectation 9: Cascade should perform and transparently share the details of distribution system modeling recommended in Attachment C of Staff's Final Comments on Avista's 2023 IRP.

³⁶ See Docket No. LC 83, AWEC, Opening Comments, October 5, 2023, pp 5-8.

1. ***Future distribution system planning should identify the rationale for projects as either Safety/General System Reliability, or Customer Growth/Reliability Related to Growth.***
 - a. ***When proposing growth-driven projects in IRPs the utility should be prepared to present project data on relationship to CPP compliance strategy, modeling and verified measurement, local load forecast, and assessment of alternatives through the [Non-Pipe Alternative] NPA framework.***
2. ***Future distribution system planning should include an NPA framework in Oregon [including the following attributes]:***
 - a. ***NPA analysis will be performed for supply-side resources (these include but are not limited to all resources upstream of [Cascade's] distribution system and city gates, and supply-side contracts) and for distribution system reinforcements and expansion projects that exceed a threshold of \$1 million for individual projects or groups of geographically related projects (a group of projects that are interdependent or interrelated).***
 - b. ***NPA analysis will include cost benefit analysis that reflects an avoided GHG compliance cost element consistent with a high cost estimate of future alternative fuels prices. Non-Energy Impacts must be included as part of the NPA analysis.***
 - c. ***NPA analysis will include electrification, targeted energy efficiency, targeted demand response, and other alternative solutions.***
 - d. ***NPA analysis should look forward five years to allow ample time for evaluation and implementation.***
 - e. ***NPA analysis will include an explanation of solutions considered and evaluated including a description of the projected timeline and annual implementation rate for the solutions evaluated, the technical feasibility of the solutions, and the strategy to implement the solutions evaluated.***
 - f. ***NPA analysis should include an explanation of the resulting investment selection (either NPA or a traditional investment) including the costs and ranking of the solutions, and the criteria used to rank or eliminate them.***
 - i. ***If a NPA is not selected and the reason is insufficient implementation time, it should include steps the Company will take to perform NPA analysis to provide sufficient implementation time for future projects.***
3. ***Future IRPs should include the results of distribution system planning, including project data and NPA analysis for any proposed traditional investments, and NPA analysis for any proposed NPA.***
4. ***Future IRPs should include a database containing information about feeders, in service dates of pipes, and lowest recent observed pressures.***

Expectation 10: In the next IRP, Cascade should attempt to include both the estimated societal benefits and the estimated costs of non-energy benefits when modeling non-pipe alternatives.

4: Line Extension Allowances

Cascade's line extension policy is outdated, does not reflect incremental GHG emission reduction compliance costs associated with providing new gas service, and should be updated.

Climate Advocates supports a re-evaluation of line extension allowances.³⁷ In Opening Comments, Staff noted that the line extension policy Cascade follows does not take into consideration the incremental CPP compliance cost of providing new gas service. This would mean that current capital expenditures on line extension allowances likely exceed prudent levels. The Company should have already known this and taken action to adjust the line extension policy. Since Cascade plans to procure RNG in UM 2307, this remains true in the wake of the Oregon Court of Appeals' ruling on the CPP.

4.1 – Expectation

Expectation 11: Cascade should update the Company's Oregon line extension policies.

5: Conclusion

The policy environment that Cascade is planning for remains in flux. Since Cascade's last IRP was acknowledged, DEQ developed the CPP as a decarbonization policy. Two days ago, the Oregon Court of Appeals found the CPP's rules invalid.

These sudden changes notwithstanding, resource planning has always been performed under conditions of uncertainty. The reasons Staff has based our recommendations to the Commission on are not entirely dependent on the existence of the CPP. Staff recommends the Commission not acknowledge Cascade's long-term plan primarily due to the Company's failure to comply with a requirement for the load forecast that the Commission ordered before DEQ established CPP rules. Staff's recommendation that the Commission acknowledge CCI purchases, like the acknowledgement of all resources, is understood to be contingent on what the Company will reasonably know at the time of procurement. And Staff's recommendation that the Commission not acknowledge RNG procurement is based on the advanced stage of these projects' development, a standard practice that would apply to any resource.

While the resource need in this IRP is uncertain, public review of Cascade's 2023 IRP was valuable. LC 83 has facilitated focused dialogue between the Company, Staff, and stakeholders that should improve the quality of the next IRP. Staff thanks stakeholders for their participation in this docket and the Company for a productive review of Cascade's 2023 IRP.

5.1 – Procedural Schedule

These Final Comments will be followed by other parties' comments which are scheduled to be filed by February 14, 2024. The Commission will hear public comment and deliberate at a Special Public Meeting on March 14, 2024.

5.2 – Summary of Staff Recommendations and Expectations

In these Final Comments, Staff makes nine recommendations for Commission action:

Recommendation 10: Staff recommends the Commission not acknowledge Cascade's long-term plan.

Recommendation 11: Staff Recommends the Commission acknowledge the purchase of 236,132 CCIs for the CPP's first compliance period.

Recommendation 12: Staff Recommends the Commission acknowledge the purchase of 325,020 CCIs for the CPP's second compliance period.

Recommendation 13: Staff Recommends the Commission not acknowledge the acquisition of 11,950,471 therms of RNG for the CPP's first compliance period.

Recommendation 14: Staff Recommends the Commission not acknowledge the acquisition of 62,670,245 therms of RNG for the CPP's second compliance period.

Recommendation 15: Staff Recommends the Commission acknowledge the acquisition of 772,570 therms of energy efficiency in 2024.

Recommendation 16: Staff Recommends the Commission acknowledge the acquisition of 816,866 therms of energy efficiency in 2025.

Recommendation 17: Staff Recommends the Commission acknowledge the acquisition of 831,951 therms of energy efficiency in 2026.

Recommendation 18: Staff Recommends the Commission acknowledge the acquisition of 831,951 therms of energy efficiency in 2027.

Staff documents eleven expectations for Cascade following Commission action on this IRP.

Expectation 12: Cascade should provide the marginal cost of RNG procurement for the avoided cost in UM 1893.

Expectation 13: Cascade should model all known demand-side measures endogenously and procure them after the IRP.

Expectation 14: Before the next IRP, Staff expects Cascade to work with the TAG to identify an approach for considering electrification as a proactive resource strategy.

Expectation 15: Cascade should develop an end-use model for demand forecasting to compare with the Company's econometric models.

Expectation 16: Cascade should model electrification using optimized incentives to avoid overestimating the cost of acquiring electrification from customers.

Expectation 17: Cascade should work with the TAG to identify a PacifiCorp IRP scenario reflecting electrification that Cascade might use to generate a load forecast for its next IRP.

Expectation 18: Cascade should model non-renewal or retirement of pipeline capacity contracts and the costs and benefits of doing so.

Expectation 19: Cascade should file, within 180 days following the final order on Cascade's 2023 IRP, a report discussing and evaluating its pipeline optimization activities, including how those pipeline optimization revenues are being returned to ratepayers.

Expectation 20: Cascade should perform and transparently share the details of distribution system modeling recommended in Attachment C of Staff's Final Comments on Avista's 2023 IRP.

- 1. Future distribution system planning should identify the rationale for projects as either Safety/General System Reliability, or Customer Growth/Reliability Related to Growth.***
 - a. When proposing growth-driven projects in IRPs the utility should be prepared to present project data on: relationship to CPP compliance strategy, modeling***

and verified measurement, local load forecast, and assessment of alternatives through the [Non-Pipe Alternative] NPA framework.

2. *Future distribution system planning should include an NPA framework in Oregon [including the following attributes]:*
 - a. *NPA analysis will be performed for supply-side resources (these include but are not limited to all resources upstream of [Cascade's] distribution system and city gates, and supply-side contracts) and for distribution system reinforcements and expansion projects that exceed a threshold of \$1 million for individual projects or groups of geographically related projects (a group of projects that are interdependent or interrelated).*
 - b. *NPA analysis will include cost benefit analysis that reflects an avoided GHG compliance cost element consistent with a high-cost estimate of future alternative fuels prices. Non-Energy Impacts must be included as part of the NPA analysis.*
 - c. *NPA analysis will include electrification, targeted energy efficiency, targeted demand response, and other alternative solutions.*
 - d. *NPA analysis should look forward five years to allow ample time for evaluation and implementation.*
 - e. *NPA analysis will include an explanation of solutions considered and evaluated including a description of the projected timeline and annual implementation rate for the solutions evaluated, the technical feasibility of the solutions, and the strategy to implement the solutions evaluated.*
 - f. *NPA analysis should include an explanation of the resulting investment selection (either NPA or a traditional investment) including the costs and ranking of the solutions, and the criteria used to rank or eliminate them.*
 - i. *If a NPA is not selected and the reason is insufficient implementation time, it should include steps the Company will take to perform NPA analysis to provide sufficient implementation time for future projects.*
3. *Future IRPs should include the results of distribution system planning, including project data and NPA analysis for any proposed traditional investments, and NPA analysis for any proposed NPA.*
4. *Future IRPs should include a database containing information about feeders, in service dates of pipes, and lowest recent observed pressures.*

Expectation 21: *In the next IRP, Cascade should attempt to include both the estimated societal benefits and the estimated costs of non-energy benefits when modeling non-pipe alternatives.*

Expectation 22: *Cascade should update the Company's Oregon line extension policies.*

Dated at Salem, Oregon, this 22nd of December, 2023.

Eric Shierman

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Senior Utility Analyst
Energy Resources and Planning Division