BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

LC 83

In the Matter of CASCADE NATURAL GAS CORPORATION, 2023 Integrated Resource Plan (IRP)	FINAL COMMENTS BY 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

I. Introduction

We write in support of the succinct, rational, and thoughtful comments developed by Staff in this proceeding. Citizens Climate Lobby, Climate Reality Project, Energize Bend, Oregon Physicians for Social Responsibility, the Environmental Center, 350Deschutes, the Green Energy Institute at Lewis & Clark Law School, Climate Solutions, Columbia Riverkeeper, and the Sierra Club (collectively, the Climate Advocates) appreciate Staff's approach, which recognizes that whether it is through the Climate Protection Program (CPP), or some equivalent regulation, the utilities play an important role in decarbonizing Oregon's economy.

With respect to the CPP, we recognize that the Oregon Court of Appeals recently invalidated the CPP regulations on the basis of a technical notice flaw.[1] DEQ has since confirmed that it intends to initiate rulemaking to correct this technical error, which it expects will conclude prior to the end of the year.[2] In the meantime, we agree with Staff's assessment that there is "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," and its decision to leave its recommendations related to the CPP in place.[3] We see no risk in acknowledging CCI

[1] Northwest Natural v. Environmental Quality Comm'n, A178216 (Dec. 20, 2023)
[2] Department of Environmental Quality, News Release, DEQ moves to re-establish the Climate Protection Program in wake of recent court filing (Jan. 22, 2024).
[3] Docket LC 83, Staff Final Comments at 1-2 & n.2.

purchases; even if the process of reinstating the CPP or enacting a similar program results in CCIs being unavailable in 2024, the result will simply be that there are no CCIs to purchase. We see no scenario where CCI purchases are available for purchase but it becomes imprudent to purchase them. Moreover, we do not want the company to miss the opportunity to properly plan for the future, and acting as though the CPP remains in effect is the best way to do this.

In terms of preparing for the future (and not losing precious time), we are especially pleased that Staff recognizes the need to model electrification as a proactive resource strategy and that it recommends Cascade adopt an approach for modeling electrification that improves upon the initial attempt offered in Avista's 2023 IRP. As we discuss further below, we ask that geothermal networking also be a supply-side technology that is reviewed alongside hydrogen and other alternative fuels.

Some of the most important recommendations, and the most time-sensitive, involve Cascade's line extension allowance and the planned update to IRP guidelines. We ask for more specific direction from the Commission about how and when these two initiatives are expected.

Finally, to address potentially problematic long-term investments that have been acknowledged under different circumstances, like contracts for capacity on the GTN Xpress, the Commission should direct Cascade to include continuation of all previously acknowledged contracts in its Action Plan, after complete and full evaluation of their continued value to the system.

II. Long-Term Plan

Climate Advocates support Staff's recommendation that the Commission not acknowledge Cascade's long-term plan. Staff's report sums up the current quandary well: Cascade 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.

Cascade defends its plan by pointing to the quickly changing regulatory context and its belief that it has exceeded compliance expectations, as well as its transparency and responsiveness. We agree that the company has responded to some concerns. But, frankly, that just isn't sufficient to meet this moment. When we find ourselves in the middle of an IRP hearing where the company is agreeing to remove a $1.6 million investment from its Action Plan after belatedly investigating a solution that costs a few thousand dollars, Climate Advocates question the effectiveness of our engagement in the TACs and the company's willingness to proactively evaluate options without waiting to be told to do so. We recognize that circumstances can change quickly, but a problem with pressure at a gate first identified in October 2022, and that stakeholders questioned throughout the TACs in preparation for this IRP–that nevertheless appears in the IRP and is not removed until after Staff, stakeholders, and the Commission question it–suggests that the company is not evaluating alternatives at the earliest possible opportunity.

Cascade urges the Commission to open a docket to initiate an update to the IRP guidelines. Climate Advocates join that chorus. But Cascade does not have to wait for such a docket. It has been given specific directions from Staff to begin tackling the tough questions it is presented with. Now it needs to get to work.

One final note on the long-term plan. We recognize Staff feels comfortable with Cascade's exploration of hydrogen as an appropriate supply side resource, at least at current expenditure levels (although Staff notes our concerns about hydrogen's safety and reliability, and it shares our concerns about Cascade's long-term assumptions around hydrogen and RNG costs). We ask the company to also evaluate geothermal networks as a potential option to provide heating and cooling to customers. Eversource, for example, is piloting a thermal network in Framingham, Massachusetts called GeoNetworks.[4] Eversource pays up front for the costs associated with the zero-emitting equipment needed to heat and cool and customers may for the cost of heating and cooling they request. Ratepayers will pay through their rates, just as they would for a new gas pipeline. Instead of paying for renewable natural gas (which imposes ongoing, external costs on the sources and the recipients) or blending hydrogen, Cascade could be a real part of the solution.

In sum, nothing about the current regulatory context (while awaiting finalization of a new CPP) should stop Cascade from complying with the expectations and recommendations clearly laid out in Staff's final comments.

III. Cascade's Action Plan

Climate Advocates support Staff's recommendations that the Commission acknowledge only the CCIs and energy efficiency in the action plan, and that it direct Cascade's future IRPs to analyze a full range of non-pipe alternatives (NPAs), including electrification and demand response, from a societal perspective. Acknowledging Cascade's CCI investments, as Staff reflects, seems appropriate at this time, recognizing that timing and pricing may change with the reintroduction of the CPP.

We support Staff's recommendation to direct an early, thorough, and transparent analysis of NPAs in Cascade's next IRP, as outlined in Staff's final comments on Avista's 2023 IRP.[5] We want to highlight that under Staff's framework, NPA analysis would look forward five years, include electrification and demand response measures, and incorporate avoided GHG compliance costs and non-energy impacts into the cost-benefit analysis of NPAs.[6] While we agree with Staff that non-energy impacts should include both societal costs and benefits, we disagree with AWEC's suggestion that these costs should include short-run marginal electric

[4] Eversource, Networked Geothermal Pilot, https://www.eversource.com/content/residential/save-money-energy/clean-energy-options/geothermal-energy (last visited Feb. 7, 2024).
[5] Docket LC 83, Staff Final Comments at 12-13 (reproducing Attachment C of Staff's Final comments on Avista's 2023 IRP).
[6] Docket LC 83, Staff Final Comments at 13, outline items 2b-d.

sector emissions.[7] First, as Staff pointed out in response to AWEC's similar recommendation in Avista's 2023 IRP, "[t]he CPP does not require LDCs to account for electric sector emissions."[8] Second, AWEC's implicit reliance on short-run marginal emissions overstates the electric sector emissions that could result from electrification. As discussed in Climate Advocates' final comments on Avista's 2023 IRP, long-run marginal emissions are a more appropriate measure, and they are likely close to zero.[9] Finally, we note that an NPA analysis should consider both the avoided CPP compliance cost, which reflects regulatory costs that accrue to Cascade and its customers, and the social cost of avoided GHG emissions, which reflects actual climate damages that accrue to all of society.

An NPA analysis meeting Staff's framework could have avoided Cascade's last-minute withdrawal of its request for acknowledgement of the Prineville Gate upgrade project by requiring the Company to take a hard look at its claimed resource need. As noted in Staff's final comments, Cascade overstated this need by applying unreasonable assumptions. A robust NPA analysis also could have resulted in an NPA that meets the medium-term capacity needs in Baker City and Ontario by considering the full suite of NPA resources, including electrification and demand response rather than only energy efficiency.[10]

We encourage the Commission to further develop Staff's framework for NPA analysis in its updates to the IRP guidelines, as Staff suggested in its final comments on Avista's 2023 IRP. In that process, we recommend that the Commission consider options for funneling potential NPA opportunities through a series of filters or developing a streamlined evaluation process for smaller projects, rather than applying firm criteria that exclude NPAs for projects that are related

[7] Docket LC 83, Staff Final Comments at 13-14 (summarizing AWEC's recommendation).
[8] Docket LC 81, Staff Final Comments at 37.
[9] Docket LC 81, Climate Advocates Final Comments at 6-7.
[10] In discussions with Cascade about NPA opportunities for Baker City and Ontario, Energy Trust of Oregon (ETO) provided a memo on the opportunities and potential role of ETO-facilitated targeted load management programs focused on energy efficiency. That memo repeatedly emphasized that these efficiency programs could play a role in meeting the projected resource need, but that "[o]ther resources, such as demand response, will need to be implemented in parallel." ETO, Memo: Targeted Load Management (TLM) Potential Analysis: Baker City and Ontario at 1 (Nov. 1, 2023) (provided to GEI as response to DR 1). ETO encouraged Cascade to explore this full range of demand-side management options and update its proposal to incorporate ETO-facilitated programs into a broader portfolio that could meet the resource need. *Id.* at 6 ("While Energy Trust does not recommend TLM as the only option to reduce loads in Baker City and Ontario, TLM efficiency could contribute to a broader set of demand-side options Cascade could pursue. Should Cascade come back to Energy Trust requesting TLM efficiency as part of a suite of solutions for these two areas, Energy Trust can work with Cascade to further explore the pursuit of TLM implementation. … In addition, Energy Trust sees possible opportunities to apply some of the TLM program delivery strategies to further gas savings in specific areas outside of a TLM implementation effort.") It appears that so far, Cascade has failed to take ETO up on this offer.

to safety/system reliability or that fall below a cost threshold.[11] This would maintain efficiency while ensuring that utilities do not miss good candidates for NPAs.

IV. Line Extension Allowance

Climate Advocates fully support Staff's expectation that Cascade update its line extension policy to reflect the incremental decarbonization costs of additional demand and stranded asset risk, and to align with Oregon's climate policy more broadly. We ask for further clarification and direction to the company about how and when this change will be implemented.

V. Cascade's GTN Xpress Rate Treatment

Finally, Climate Advocates would like to provide additional context regarding the Federal Energy Regulatory Commission's (FERC's) approval of Gas Transmission Northwest's (GTN's) "GTN Xpress" project on October 23, 2023.[12] Although the Commission previously acknowledged Cascade's investment in GTN Xpress, this investment is now inappropriate and puts ratepayers at risk. We offer the following details about GTN Xpress to demonstrate why the Commission should accept and impose Staff's recommendations that Cascade 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. We also urge the Commission to go one step farther by requiring that the previously-acknowledged contracts should be included as an action item if they will be continued.

When GTN submitted its application for GTN Xpress to FERC on October 4, 2021, it requested approval by October 2022, to allow for an in-service date of November 1, 2023. However, due to enormous opposition from grassroots organizations, elected officials, and individuals, FERC did not approve the project until October 2023—an entire year later. The project faces additional uncertainty due to ongoing litigation on behalf of GTN itself and project opponents. It is currently unknown if or when the project will reach completion.

GTN's application for GTN Xpress requested "predetermination for rolled-in rate treatment": a guarantee from FERC that it could distribute project costs among all shippers on the GTN

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[11] *See* Colorado PUC, Proceeding 23M-0234G, Conservation Advocates' Reply Comments at 7-8, 31 (Oct. 6, 2023); Colorado PUC, Proceeding 23M-0234G, Strategen, *Non-Pipeline Alternatives: A Regulatory Framework and a Case Study of Colorado* at 21 (Oct. 2023) (recommending "full-scale" NPA analysis for large infrastructure projects and a "streamlined" NPA assessment for small projects), https://drive.google.com/file/d/1P5BRdeRHK4gKsFfpdHZmaCUQbVyaPRq3/view; Strategen, Pipeline Alternatives to Natural Gas Utility Infrastructure: An Examination of Existing Regulatory Approaches at 10-13 (Aug. 2023) (describing other states' approaches to identifying NPA candidates), https://drive.google.com/file/d/1lDXd4XePe4auVSVRnat5jRf47BMQziPd/view.

[12] Federal Energy Regulatory Commission, Order Issuing Certificate in CP22-2-000 (Oct. 23, 2023) (FERC Order), available at https://www.ferc.gov/media/c-1-cp22-2-000.

pipeline, not just the three Project Shippers committed to the new gas from GTN Xpress (Cascade, Tourmaline, and Intermountain). Non-Project Shippers Pacific Gas & Electric Company and Puget Sound Energy both protested GTN's request for predetermination of rolled-in rate treatment, questioning the appropriateness of requiring all shippers to pay for GTN Xpress.

As a result of those protests, FERC denied GTN this automatic cost-spreading function, instead finding "that parties should be free to argue in the next rate case that a portion of the compression costs should be assigned to the expansion project."[13] This creates the possibility that the three GTN Xpress Project Shippers, Cascade included, will get stuck paying more than originally anticipated. Coupled with the fact that forecasting[14] shows this gas may not be necessary, it is clear that circumstances have changed and GTN Xpress is not a prudent investment, whether or not it may have been in the past. Cascade's commitment to 20,000 dth/day of new gas from GTN Xpress was short-sighted and places undue risk on Cascade's customers.

For these reasons, in addition to Staff's recommendations affording more transparency and information on pipeline obligations, the Commission should consider the Washington Utility and Transportation Commission's approach to Cascade's contractual obligations. The WUTC recognized that "the GTN Xpress resource addition must be justified based on current and future needs, not on past assessments or needs." A previously-acknowledged investment should not be shielded from reassessment. To best queue up previously-acknowledged contracts for assessment, Cascade should be directed to include continuation of all previously acknowledged contracts as an item in its Action Plan. This would allow for a streamlined, holistic review of the decision to continue with these previously-acknowledged contracts, while enabling the Commission, Staff, and stakeholders to more closely scrutinize contracts that raise concerns or where circumstances have changed, such as GTN Xpress.

VI. Conclusion

[13] FERC Order at 23.

[14] The Washington Utilities and Transportation Commission (WUTC) recently declined to acknowledge Cascade's 2023 IRP, noting the "serious nature of the Commission's concerns with this IRP." WUTC attached staff's comments in full to this recent finding. WUTC Letter in UG-220131 (Feb. 5, 2024) (Excerpts attached as Attachment 1). Documents available in full at https://www.utc.wa.gov/casedocket/2022/220131/docsets.

Regarding GTN Xpress, staff found "Cascade's analysis on this capacity resource is conspicuously inadequate, and inconsistent with a long term lowest reasonable cost analysis required . . . . Cascade's contractual obligations aside, for the purposes of the instant IRP, the GTN Xpress resource addition must be justified based on current and future needs, not on past assessments or needs . . . . **Cascade should analyze the impacts on ratepayers for when this capacity resource becomes a stranded asset.**"

With the conclusion of this briefing, the Commission will have vetted all three of Oregon's gas utility IRPs. The depth and breadth of the learnings accumulated over the year, following the conclusion of the Natural Gas Fact Finding, is reflected in the thoughtful recommendations and expectations proposed by Staff. We recognize that the process to comply with these requirements will require effort and growth by Cascade, but this is necessary to meet the moment and we urge the Commission to adopt Staff's recommendations and expectations in its order.

With respect to Cascade's line extension allowance and the planned update to IRP guidelines, we ask for more specific direction from the Commission about how and when these two initiatives are expected.

Sincerely,

/s/ Carra Sahler
Director and Staff Attorney
Green Energy Institute at Lewis & Clark Law School

/s/ Samantha Hernandez
Samantha Hernandez
Healthy Climate Program Director
Oregon Physicians for Social Responsibility

/s/ Audrey Leonard
Audrey Leonard
Staff Attorney
Columbia Riverkeeper

/s/ Meredith Connolly
Oregon Director
Climate Solutions

/s/ Kristi Kimball
Energize Bend

/s/ Neil Baunsgard
Climate and transportation Policy Manager
The Environmental Center

/s/ Jim Dennison
Staff Attorney
Sierra Club

/s/ Lynne Haroun
Leadership Member
The Climate Reality Project

/s/ Diane Hodiak
Executive Director
350Deschutes

/s/ Daniel Duffy
Chair, Bend Chapter
Citizens Climate Lobby

EXHIBIT 1

Washington Utilities and Transportation Commission's decision on Cascade's IRP, with relevant excerpts from accompanying staff report.

Service Date: February 5, 2024

STATE OF WASHINGTON

UTILITIES AND TRANSPORTATION COMMISSION

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February 05, 2024

Nikole A. Kivisto Chief
Executive Officer
President and Chief Executive Officer
Cascade Natural Gas Corporation
8113 West Grandridge Boulevard,
Kennewick, Washington 99336

Re: Cascade Natural Gas Company
2023 Natural Gas Integrated Resource Plan Docket
UG-220131

Dear Nikole A. Kivisto:

The Washington Utilities and Transportation Commission (Commission) has reviewed the Final 2023 Integrated Resource Plan (IRP or Plan) filed by Cascade Natural Gas Company (Cascade or Company) on February 25, 2022, and finds that it <u>does not</u> comply with the requirements of Washington Administrative Code (WAC) 480-90-238.

This letter does not represent a final determination on the prudency of any course of action identified in the Company's IRP, and does not bind the Commission when considering the ratemaking treatment of any costs in any subsequent proceedings. The Commission will review the prudence of the Company's decisions in a general rate proceeding when the Company seeks to recover investment costs in customer rates. Prudence determinations require the Commission to consider all the information, analyses, and strategies contained in the Company's IRP, along with other relevant evidence.

An IRP does not precisely pinpoint future actions to minimize a utility's expected costs and risks. Therefore, we expect the Company to regularly update the assumptions underlying the IRP analysis and adjust its operational strategies accordingly.

The Commission Staff have identified several areas in which the IRP does not conform to our rules. In the months leading up to the IRP filing, Commission staff (Staff) met with the Company on several occasions and filed written comments to discuss and identify these issues. While the Commission recognizes that the Company responded to some of Staff's concerns during the advisory group process and drafting of the IRP, this ongoing voluntary compliance did not assuage all of Staff's concerns.

Staff notes that Cascade's demand forecast does not account for changing building codes (current public policy), or consumer responses to changing prices. Additionally, Staff has questions about Cascade's strategy for compliance with the Climate Commitment Act (CCA), namely the Company's reliance on Price Ceiling Units. Further, Cascade does not include Renewable Natural Gas (RNG) as a compliance resource to reduce Greenhouse Gas (GHG) emissions. This is significant because gas companies are required by WAC to assess commercially available nonconventional gas supplies and gas companies are required to plan to meet customer demand at the lowest reasonable cost. Based on our review of the comments and the submissions in this proceeding, the Commission is concerned that Cascade **did not comply with the following rules:**

- **WAC 480-90-238(3)(g),**[1] ○ consider RNG as part of the Company's lowest reasonable cost analysis.
    - consider state building codes and statutes relevant to public policies regarding resource preferences adopted by Washington state such as RCW 19.27A.020(2)(a) and RCW 19.27A.160.[2] ○ substantively analyze the economic risks imposed on ratepayers due to compliance with the CCA or evolving building codes.
    - consider the effects of hydrogen-blended fuels on system operations.[3]

- **WAC 480-90-238(3)(a)**[4] ○ consider the impacts of CCA compliance on the price competitiveness of the Company's services.

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[1] WAC 480-90-238(g) "The integration of the demand forecasts and resource evaluations into a longrange ... integrated resource plan describing the mix of resources that is designated to meet current and future needs at the lowest reasonable cost to the utility and its ratepayers."

[2] WAC 480-90-238(2)(b) ""Lowest reasonable cost" means the lowest cost mix of resources determined through a detailed and consistent analysis of …"

[3] WAC 480-90-238(2)(b) ""Lowest reasonable cost" means the lowest cost mix of resources determined through a detailed and consistent analysis of ... resource effect on system operations..."

[4] WAC 480-90-238(3)(a) "A range of forecasts of future natural gas demand in firm and interruptible markets for each customer class that examine the effect of economic forces on the consumption of natural gas and that address changes in the number, type, and efficiency of natural gas end-uses."

- **WAC 480-90-238(3)(c)**[5] ○ consider RNG for CCA compliance not as part of a lowest reasonable cost portfolio.

- **WAC 480-90-238(3)(d)**[6] ○ consider storage of hydrogen or hydrogen-blended fuels.

- **WAC 480-90-238(3)(e)**[7]
  - consider distribution and transmission system capability, reliability, and safety for hydrogen or hydrogen-blended fuels.

The Commission further observes that the Company did not file an IRP Work Plan in the two months recommended by Staff. Instead, the Company filed an IRP Work Plan later on December 19th, 2023. Given the serious nature of the Commission's concerns with this IRP, the Commission would have expected more proactive planning and engagement.

Consistent with the principle that an IRP serves as a planning horizon, the Company's final decision to pursue any specific course of action described within its IRP as a least-cost resource should be informed by the IRP but made outside of the IRP process. The Commission anticipates that Staff will continue to provide additional input to build a complete understanding of the dynamics and hurdles in the coming years as Cascade develops its next IRP. Also, the Commission expects that Staff will work with the Company to improve public outreach and participation to ensure equitable participation in Commission proceedings. The Company must strive to better identify and analyze emerging industry best practices and provide analytics supporting its integrated resource planning.

Staff's specific comments regarding the Company's IRP are attached, in accordance with past Commission practice in acknowledging IRPs. These comments address, among other issues, the specific bases for our finding of noncompliance above.

The Commission expects Cascade to perform its due diligence with assessments and analyses in its next IRP filing. The Company filed its natural gas 2025 IRP Work Plan on December 19, 2023, and it is currently required by rule to file its next natural gas 2025 IRP on or before February 24, 2025.

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[5] WAC 480-90-238(3)(c) "An assessment of conventional and commercially available nonconventional gas supplies."
[6] WAC 480-90-238(3)(d) "An assessment of opportunities for using company-owned or contracted storage."
[7] WAC 480-90-238(3)(e) "An assessment of pipeline transmission capability and reliability and opportunities for additional pipeline transmission resources."

JEFF KILLIP
Executive Director and Secretary

In light of these issues with PLEXOS, **Staff recommends that Cascade highlight and offer appropriate cautions in its analysis wherever PLEXOS yields results or behaviors that would be unlikely to be anticipated or enacted by a human planner. Staff further recommends that Cascade highlight and offer appropriate caution in its analysis wherever PLEXOS uses resources in its portfolio in a manner that does not accord with current best practices or current technological means.**

GTN Xpress

The GTN Xpress is a pipeline expansion project proposed by Gas Transmission Northwest and currently under consideration by FERC. The expansion is affected by the modification of three compressor stations. One of these compressors is in Washington. It would increase capacity by 150 million cubic feet per day.[137]

This pipeline expansion is a contentious issue that has garnered considerable opposition in the State of Washington. The States of Washington, Oregon, and California have all motioned to intervene in the FERC proceedings. In the State's motion, Attorney General Bob Ferguson noted various grounds for opposing the expansion. "The record shows minimal, if any, public benefits from the project. As discussed above, there is scant evidence of a public need for the methane gas the project will transport. The lack of need alone is sufficient to deny the certificate."[138] The motion also noted environmental equity concerns "The Draft EIS further notes that a predominately Latinx community lives within one mile of the Starbuck station. Draft EIS 4-23, 25. Increasing pollution in a community of color overburdened by pollution is against the public interest."[139] The state of Washington further characterized its opposition to the project stating, "Authorizing expanded infrastructure to bring more methane into our States is against the public's interest, manifest in their state and local laws."[140]

135 Topolski et al. pg. 19
136 2023 IRP, pgs. 9-37 and 9-38
137 FERC, Final Environmental Impact Statement, Docket CP22-2-000, November 2022.
138 FERC, Joint motion to intervene and protest by the states of Washington, Oregon, and California, Docket No. CP22-2-000, August 22, 2022, page 27.
139 FERC, Joint motion to intervene and protest by the states of Washington, Oregon, and California, Docket No. CP22-2-000, August 22, 2022, page 27.
140 FERC, Joint motion to intervene and protest by the states of Washington, Oregon, and California, Docket No. CP22-2-000, August 22, 2022, page 25.

The pipeline expansion is similarly reflected in public comments received for this docket. As of this writing,[141] 310 comments were submitted from Washington citizens as well as various environmental advocacy groups. Every comment but one opposes an expansion of natural gas use in Washington, and most object, in particular, to the GTN Xpress capacity expansion project and Cascade's supply contract. They emphasize that the project is inconsistent with state emissions goals, building code changes, and environmental justice principles, while also lacking a basis in customer demand.

Staff similarly urge Cascade's IRP be brought into compliance as it relates to the GTN Xpress project. As will be evidenced, Cascade's analysis on this capacity resource is conspicuously inadequate, and inconsistent with a long term lowest reasonable cost analysis required by WAC 480-90-238(2)(b).

Cascade's GTN Xpress analysis is predominantly and conspicuously in the past tense. That is, the IRP document cites previous IRP filings in Oregon and Washington a total of 10 times compared to only three references to the instant IRP or analysis conducted for the current IRP. Such frequent citation to previous IRP documents is not present elsewhere in the IRP. WAC 48090-238(2)(a) states, in part, “"Integrated resource plan" or "plan" means a plan describing the mix of natural gas supply and conservation designated to meet **current** and **future needs**” (emphasis added by Staff.) Cascade's contractual obligations aside, for the purposes of the instant IRP, the GTN Xpress resource addition must be justified based on current and future needs, not on past assessments or needs.

Looking only at current and future needs, Cascade only presents four justifications for the GTN Xpress: unserved demand (shortfalls) modelling, the demand forecast, claims about future prices, and peak day modeling. Each of these will be discussed.

Cascade's first justification for the GTN Xpress capacity resource is a claim about avoided shortfalls:

> In the 2020 and 2023 IRP, Cascade included the 20,000 dth of GTN Cascade contracted for beginning November 1, 2023, in the modeling. Since this new contract was included in the modeling Cascade did not identify any shortfalls in the 2020 IRP and identified a small shortfall on GTN in the 2023 IRP, but not until late 2040's.

This claim omits pertinent information. Since the model presumes the inclusion of the GTN resources in question there is no control. No information is presented on the imminence of a shortfall if the GTN resource were not included in the portfolio, nor is there information provided on the scale of the shortfall. Furthermore, this claim relies upon demand forecasts that are likely inaccurate. **Staff recommends that Cascade reevaluate the demand shortfalls by 1. Updating the demand forecast consistent with Staff's other recommendations noted above in the section on demand growth, price forecasting, and climate change modeling; and 2.**

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4/26/23

Running a control analysis without the GTN capacity increase.[142] Staff believes this analysis should have been done through the course of the advisory group process.

Cascade's next justification for the GTN Xpress resource is that "In this 2023 IRP, Cascade shows in the Demand Forecast chapter that the Company anticipates growth to continue to rise even with the carbon compliance around the CPP."[143] However, Cascade's demand estimates do not account for current statutes and building codes. Cascade anticipates annual load growth of .54 percent out to 2050 driven by increasing customer counts.[144] It is unclear that if Cascade's load forecast aligned with existing statutes and building codes whether any shortfalls would arise prior to 2031 without the addition of further GTN resources. Staff views Cascade's analysis as woefully inadequate to accurately determine if the resource choice is warranted by demand or not.

Next, Cascade attempts to justify the GTN resource addition with reference to future costs. The IRP states "The cost of acquiring 20,000 dths of capacity now will more likely be cheaper than capacity four years from now. It is Cascade's understanding that GTN is nearly fully subscribed."[145] No further context or justification is provided for this assessment. No cost of the capacity resource is provided, and no comparative costs of other resources are indicated. It is not clear that a lowest cost analysis was applied to justify the acquisition of this capacity resource.

Finally, Cascade provides an anecdote of weather on December 22, 2022. On this day "Cascade flowed approximately 66,000 dth along GTN" corresponding to a 52 HDD temperature.[146] Cascade notes that, without the added GTN capacity, there would only be a capacity of 72,603 dth putting Cascade within 6,000 dth of exceeding upstream pipeline contracted capacity.[147] Cascade further adds that the modeled peak is a 70 HDD temperature.[148] This evidence must be thoroughly deconstructed:

- First, no analysis is given about the date itself; i.e., why it was chosen. It is not clear if this date was a particularly cold date or representative in some other fashion.
- Relatedly, Cascade does not clarify if the 66,000 dth was caused by the 52 HDD temperatures. 78 percent of Cascade's throughput is non-core or transportation customers.[149]
- Cascade does not provide any context when they claim ". . . Cascade was about 6,000 dth from exceeding upstream pipeline contracted capacity while experiencing cold, but not peak day temperatures."[150] It is not clear that this number is a narrow margin. There is no description of the degree to which the system was stressed meeting this demand. It is also unclear if Cascade has curtailable demand available to meet more extreme weather. Cascade notes elsewhere that some transportation arrangements on GTN are interruptible.[151]

142 WAC 480-90-238(2)(a) "Integrated resource plan" or "plan" means a plan describing the mix of natural gas supply and conservation *designated to meet current and future needs* at the lowest reasonable cost to the utility and its ratepayers." [emphasis added by Staff]
143 2023 IRP, pg. 4-22
144 2023 IRP, pg. 3-19
145 2023 IRP, pg. 4-21
146 2023 IRP, pg. 4-21
147 2023 IRP, pg. 4-21
148 2023 IRP, pg. 4-21
149 2023 IRP, pg. 2-5

- Next, Cascade's modeled peak of a 70 HDD temperature should be scrutinized. Going back to 1993, Cascade's historical 30-year peak HDD in Redmond, Oregon was a 63.7 HDD temperature. It is unclear to Staff where this 70 HDD value comes from or how Cascade arrived at this value in its 99th percentile peak day simulations. Cascade provides no HDD data in the appendices or IRP document to corroborate the inferences of the anecdote presented here. Staff notes that the same year that Cascade's IRP first noted the GTN Xpress capacity resource is the same year that Cascade switched from a 30-year peak analysis to a 99th percentile peak day simulation for upstream modeling purposes. Staff further notes that Cascade continues, elsewhere, to use the 30-year peak weather analysis for distribution system planning.[152]
- Cascade does not state how much supply would be necessary to meet the 99th-percentilemethod peak HDD of 70. Nor do they state which HDD temperature would have resulted in a shortfall without the GTN capacity increase.
- Finally, Staff notes that the GTN Xpress contract is a 30-year annual contract. That is, it is a contract to provide an additional 20,000 dth per day, every day of the year, rather than a more targeted winter-capacity contract. Cascade is attempting to demonstrate the need for this contract using a peak day event it anticipates happening less than every 30 years.

For these reasons Staff cautions against accepting this evidence of a "cold, but not peak day temperature" for the inference that Cascade's capacity would be stressed but for the addition of a further 20,000 dth/day capacity from GTN Xpress.

Staff further notes that the size of the GTN Xpress contract is of concern. Cascade explains "Base load contracts can range from as small as 500 dths/day to quantities in excess of 10,000 dths/day. Blocks of 1,000, 2,500, 5,000 and 10,000 dths/day are standard as these are the most operationally and financially viable blocks for suppliers."[153] The GTN Xpress contract is for 20,000 dth. This value exceeds the typical contracts described by Cascade. Given this exceptional size, the GTN Xpress contract warrants greater attention and scrutiny. Staff is further concerned that, given the scale of the contract, that it might lock in an unnecessary expense for the next 30 years. Further, since Cascade already models capacity as if the 20,000 dth/day is part of the portfolio, Staff makes a conjecture that it may act as a sunk cost or friction for PLEXOs and thereby prevent the optimization software from selecting other capacity resources. This could lead to a path dependency issue as the State and regulated entities seek to decarbonize and minimize impacts to ratepayers.

150 2023 IRP, pg. 4-21 151 2023 IRP, pg. 12-15 152 2023 IRP, pg. 8-5 153 2023 IRP, pg. 4-4

Finally, Staff notes that the GTN capacity expansion was noted in the 2018 IRP and the

Commission agreed with Cascade's 2019-2020 Action Plan.[154] Pursuant to this action plan Cascade "signed a non-binding term sheet between GTN and the Company on April 18, 2019," and later "On September 13, 2019, consistent with GSOC's authorization, Cascade executed a binding precedent agreement with GTN to acquire 20,000 dths/day of GTN capacity as part of the GTN Express project."[155] Since that acknowledgment letter, the regulatory landscape has fundamentally changed with the CCA, standards changes, and other policies. The evidence presented by Cascade does not adequately substantiate its claims about customer demand or respond to the changed regulatory landscape. Consequently, it is unclear to Staff whether Cascade will ever experience a peak load event where it will be necessary to call upon this added capacity. **Therefore, Staff makes the following recommendations: Cascade should analyze the impacts on ratepayers for when this capacity resource becomes a stranded asset.[156] Cascade should clarify the role of non-core/transportation customers in peak day events and provide quantitative and graphic analysis of the size of curtailable contracts.[157] Cascade should demonstrate lowest reasonable cost analysis by demonstrating that other capacity resources were considered.[158] Cascade should demonstrate the need for 20,000 dth/day contract is tailored to meet demand on a 70 HHD temperature day. Cascade should demonstrate that an annual capacity contract is appropriate and tailored for a winter-peaking event.[159] If the Commission shares Staff's concerns on this issue Staff requests that the Commission communicate those concerns to the Company.**

Other Staff Comments

In Chapter 8 Cascade discusses considerations for distribution system enhancements. Cascade explains:

> The feasibility of looping a pipeline depends upon the location where the pipeline will be constructed. Installing gas pipelines through private easements, residential areas, existing asphalt, environmentally sensitive areas, and steep or rocky terrain can increase the cost to a point where alternative solutions are more cost effective.[160]

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[154] Docket UG–171186, "Cascade 2018 IRP Acknowledgement Letter," Attachment, July 8, 2019, at pg. 6. [155] 2023 IRP pg. 4-21 [156] WAC 480-90-238(2)(b) "At a minimum, this analysis must consider resource costs, market-volatility risks, ... the risks imposed on ratepayers, ..." [157] WAC 480-90-238(3)(a) "A range of forecasts of future natural gas demand in firm and *interruptible markets for each customer class* that examine the effect of economic forces on the consumption of natural gas and that address changes in the number, type and efficiency of natural gas end-uses." [emphasis added by Staff] [158] WAC 480-90-238(3)(f) "A comparative evaluation of the cost of natural gas purchasing strategies, storage options, delivery resources, and improvements in conservation using a consistent method to calculate cost-effectiveness." [159] WAC 480-90-238 (2)(a) "'Integrated resource plan' or 'plan' means a plan describing the mix of natural gas supply and conservation designated to **meet** current and future needs at **the lowest reasonable cost** to the utility and its ratepayers." [emphasis added by Staff] [160] 2023 IRP, pg. 8-8

Staff questions if the siting of fossil fuel infrastructure might exacerbate environmental inequities. **Staff recommends that Cascade include an equity analysis of its pipeline siting.[161] Staff further recommends that if inequities are identified in the siting of pipelines and other**