

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of Cascade Natural Gas  
Corporation's  
2020 Integrated Resource Plan

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**COMMISSION STAFF COMMENTS REGARDING  
CASCADE NATURAL GAS CORPORATION'S 2020 IRP PURSUANT TO  
WAC 480-90-238**

*May 27, 2021*

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## **Introduction**

Cascade Natural Gas Corporation (Cascade or the Company) is a subsidiary of MDU Resources Group, Inc. (MDU). Cascade provides natural gas service to approximately 222,000 natural gas customers in Washington, which represents about 74 percent of the Company's total customers.<sup>1</sup> Cascade's system-wide energy throughput is composed of approximately 75 percent non-core customer demand (large-volume customers that purchase their own gas supplies and upstream transportation) and 25 percent core customer demand. Core customers are made up of residential customers (representing about 13 percent of total throughput demand), commercial customers (roughly 10 percent of total throughput demand), and core industrial customers (about two percent of total throughput demand).<sup>2</sup>

This document provides Commission Staff's (Staff) comments on the 2020 integrated resource plan (IRP), which was timely submitted by Cascade to the Washington Utilities and Transportation Commission (Commission) on February 26, 2021, in accordance with Washington Administrative Code (WAC) 480-90-238.<sup>3</sup> Pursuant to this rule, IRPs are submitted every two years and are developed with the input of an advisory group made up of interested parties, the public, and Staff.<sup>4</sup> The comments in this document provide an overview of the requirements in WAC 480-90-238, followed by a synopsis of Cascade's IRP history and a retrospective evaluation of Cascade's responsiveness to the items raised by the Commission in the Cascade 2018 IRP acknowledgment letter.<sup>5</sup> Next, this document provides Staff's review of the Company's findings and forecasts for new resource acquisitions in Cascade's 2020 IRP, and contrasts them to Cascade's 2018 IRP. The final sections of this document provide Staff's suggestions for improvements that could be made to Cascade's forthcoming 2023 IRP.

## **Background and Regulatory Compliance**

Under WAC 480-90-238, investor-owned natural gas utilities (IOUs or utilities) must develop an IRP every two years which describes "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."<sup>6</sup> In preparing an IRP, utilities are required to use consistent analyses to thoroughly examine a wide range of commercially available resources that would serve customers at the lowest reasonable cost to the utility and its ratepayers. In evaluating the lowest reasonable cost, each utility must consider "resource costs, market-volatility risks, demand-side resource uncertainties, the risks imposed on ratepayers, resource effect on system operations, public policies regarding resource preference adopted by Washington state or the federal government, the cost of risks

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<sup>1</sup> *2020 Integrated Resource Plan*, Docket UG-190714, p. 2-4 (2020 Cascade IRP) (filed Feb. 26, 2021).

<sup>2</sup> 2020 Cascade IRP at 2-5.

<sup>3</sup> The IRP was originally supposed to be filed by December 14, 2020. However, the Company filed a petition on January 16, 2020, to extend the IRP's due date to February 26, 2021. After the petition was amended and supplemented, it was granted on February 6, 2020. Docket UG-190714, Order 01.

<sup>4</sup> WAC 480-90-238.

<sup>5</sup> *2018 Integrated Resource Plan*, Docket UG-171186 (2018 Cascade IRP) (filed July 8, 2019).

<sup>6</sup> WAC 480-90-238(2)(a).

associated with environmental effects including emissions of carbon dioxide, and the need for security of supply.”<sup>7</sup>

### **Impact of 2019 Legislation**

The Washington Legislature passed the Laws of 2019, Chapter 285 during the 2019 legislative session. This chapter placed new requirements on natural gas utilities pertaining to conservation and renewable natural gas (RNG). Taken together, RCW 80.28.380 and 80.28.395 require natural gas utilities to include the cost of greenhouse gas emissions (GHGs), including those occurring upstream from their end use, in their conservation acquisition targets. Meanwhile, RCW 80.28.390 requires natural gas companies to offer a voluntary RNG service to its customers, and RCW 80.28.385 allows them to substitute RNG for a portion of their fossil natural gas delivered to customers. One of Staff's main tasks in the 2020 IRP process was to ensure that Cascade was implementing these new laws appropriately and offer clear direction to the Company as needed.

### **2020 IRP Findings**

In this section, Staff highlights some of the key findings from Cascade's 2020 IRP. Table 1 illustrates the major changes in IRP inputs between the 2018 and 2020 IRPs.

**Table 1: Comparison of IRP Inputs, 2018 IRP and 2020 IRP**

	<b>2018 IRP (2019-2038 planning period)</b>	<b>2020 IRP (2021-2040 planning period)</b>
<b>Demand forecast</b>	1.3% annual load growth; 1.2% annual peak day load growth	1.6% annual load growth; 1.6% annual peak day load growth
<b>Gas price forecast (excluding carbon price)</b>	\$3.18-4.36/MMBtu	\$3.37-4.11/MMBtu
<b>GHG price forecast</b>	\$42-58/metric ton CO <sub>2</sub> e	\$78-104/metric ton CO <sub>2</sub> e
<b>Avoided costs (nominal)</b>	\$0.29-0.81/therm	\$0.85-1.09/therm
<b>Demand side management potential (cumulative, excluding low income)</b>	46.7 million therms	57 million therms

As Table 1 demonstrates, several of the inputs into the 2020 IRP have increased since the 2018 IRP. Expected demand growth (for both annual load and peak day load) has increased significantly from the last IRP. This increase reflects higher growth trends seen in Cascade's service territory, as well as the shift from non-core to core service of several large industrial customers. The demand forecast in this IRP has also been enhanced with better data from a different billing system than Cascade had used in previous IRPs. The result, according to Cascade, is a more accurate demand forecast. Staff appreciates the improved data source, though

<sup>7</sup> WAC 480-90-238(2)(b).

notes that the resulting growth rates are significantly higher than those expected by other gas utilities in the state.<sup>8</sup> Staff will expect to see some evidence that the new forecast is in fact more accurate in the 2023 IRP.

Cascade's carbon price forecast, avoided costs, and demand side management (DSM) potential have all increased compared to the 2018 IRP. These increases can largely be attributed to changes in how the social cost of greenhouse gases (SCGHG) has been applied in the current IRP. Prompted by RCW 80.28.395, Staff requested that Cascade use the SCGHG with a 2.5 percent discount rate as its base GHG price forecast. As a result, the price per ton of GHGs emitted has increased by nearly 80 percent at the end of the forecast period. This GHG emission price forecast flowed into the avoid cost formula, leading to a significant increase in avoided costs; GHG emission costs now account for 50-55 percent of all avoided costs.<sup>9</sup> Finally, the avoided costs were an input into the DSM potential forecast, contributing to an increase of nearly 11 million therms of economic conservation potential in this IRP.<sup>10</sup> Of the 57 million therms of economic conservation potential, 45 million are in the Company's Washington territory, with the remainder in its Oregon territory.<sup>11</sup>

#### *Preferred Portfolio and Identification of Resource Need*

For the first time in several IRP cycles, in the 2020 IRP, Cascade does not forecast any unserved demand through 2040 using its existing "as-is" modeling. The Company attributes this to a series of purchases it made in late 2019 to increase its upstream gas transportation capacity. The purchases will help it serve its customers in central Oregon, which in prior IRP cycles had been an area where growth outstripped supply.<sup>12</sup> Additionally, the 2018 IRP identified a capacity realignment opportunity in the Bremerton-Shelton area that would meet unserved demand in northwest Washington.<sup>13</sup> Cascade agreed to this realignment package in June 2019, which has eliminated any forecasted unserved demand in that area in the 2020 IRP.<sup>14</sup>

The preferred portfolio selected in the IRP includes incremental DSM as the sole resource that Cascade should pursue immediately to serve its customers. It also identified two additional resources that could present opportunities to minimize costs and risks in the future. Those resources are incremental capacity at the Spire storage facility in northwest Wyoming, and

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<sup>8</sup> Avista expects approximately 1.0 percent annual load growth, while Puget Sound Energy anticipates 0.8 percent annual growth. *2021 Avista Natural Gas Integrated Resource Plan*, Docket UG-190724, p.23 (2021 Avista natural gas IRP) (filed April 1, 2021); *2021 PSE Integrated Resource Plan*, Docket UG-200305 p. 6-17 (2021 PSE IRP) (filed Jan. 4, 2021).

<sup>9</sup> 2020 Cascade IRP at 5-4.

<sup>10</sup> Also contributing to the increase in conservation potential is the use of a lower discount rate than the previous IRP (the Company ties its discount rate to the 30-year mortgage rate). In the 2020 IRP, this rate is a full point lower than it was in the 2018 IRP. 2020 Cascade IRP at 7-2.

<sup>11</sup> 2020 Cascade IRP at 7-3.

<sup>12</sup> *Id.* at 10-22.

<sup>13</sup> 2018 Cascade IRP at 4-13.

<sup>14</sup> 2020 Cascade IRP at 4-8.

incremental pipeline capacity in Alberta. Cascade intends to monitor both resources and continue modeling them in future IRP cycles to see what opportunities present themselves.

### *Modeling of Significant Emergency Events*

In its 2018 IRP acknowledgement letter, the Commission instructed Cascade to use the October 2018 British Columbia, Canada, pipeline rupture as a basis for expanding upon the results of its scenario analysis.<sup>15</sup> In response, Cascade re-focused some of its scenario analyses to explore what would happen if it permanently lost access to its gas supplies from any of its three supply basins: the Rocky Mountains, Alberta, and British Columbia (there is also a scenario where the Company loses access to all Canadian gas).

While permanent loss of any of these supply basins is highly unlikely, the analysis is illustrative. It finds that the Company would experience immediate and severe unserved demand if it lost access to gas from British Columbia or all of Canada. If it were to lose access to Alberta or the Rockies, Cascade could serve its customers for a few years before unserved demand begins to show up (though at a level much lower than the no-British Columbia or no-Canada scenarios). Finally, the analysis shows that if the Company were to lose access to any of these resources for a short amount of time or have access to a more limited supply from any basin, it could continue to serve its customers, but only at an elevated cost.

While Staff is satisfied with this analysis, Staff notes that, yet another supply security concern has emerged in recent weeks. In May 2021, the Colonial Pipeline, a refined products pipeline that supplies gasoline and jet fuel to many East Coast and southern states, was the victim of a ransomware attack and had to shut down for several days.<sup>16</sup> While Staff believes that further modeling of supply disruptions is probably unnecessary, issues around cybersecurity efforts are timely, as the issue may fit within WAC 480-90-238(2)(b)'s "security of supply" provision.

### *Clarifying Distribution System Planning Priorities*

Also in its 2018 IRP acknowledgement letter, the Commission suggested that, in its next IRP, Cascade do a better job of highlighting distribution projects of particular importance to the Commission, Staff, and the public.<sup>17</sup> The Company responded by including more documentation around all its planned distribution system enhancements over the next five years. Staff appreciates this approach and the additional transparency it provides.

## **Continuous Improvement**

The following Staff comments provide suggestions for improving the 2023 Cascade IRP.

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<sup>15</sup> 2018 Cascade IRP, letter dated July 8, 2019, p. 7.

<sup>16</sup> Jones, David, *Colonial Pipeline attack embodies security risk to nation's critical infrastructure*, (May 10, 2021), <https://www.utilitydive.com/news/colonial-pipeline-ransomware-attack/599889/>.

<sup>17</sup> 2018 Cascade IRP, letter dated July 8, 2019, p. 7.

### *Impact of Legislation Enacted in 2021*

Washington's recently completed 2021 legislative session saw the enactment of several new laws aimed at reducing GHGs in the state. Of note to Cascade are Laws of 2021, Chapter 316 (effective July 25, 2021) (partial veto (PV)) (the "cap and invest" law) and Chapter 317 (effective date July 25, 2021) (PV) (the low carbon fuel standard). In its next IRP, Cascade must evaluate the impacts these new laws have on its plans to serve its customers. Specifically, the Company should evaluate the impacts on its demand forecast, natural gas prices, conservation potential, overall cost, and risk profile.

### *Impacts of COVID-19 Pandemic*

Cascade's 2020 IRP modeling took place during the COVID-19 pandemic. The first TAG meeting was held a mere 34 days after the World Health Organization declared a pandemic on March 11, 2020. Certain portions of the IRP had to be locked in amidst the uncertainty brought on by the pandemic's early days. Notable among these is the demand forecast, which was finalized on June 10, 2020, three months after the pandemic began. As the Company notes in the IRP, its source for population and economic growth data (Woods & Poole) did not foresee long-term economic impacts that would impact its forecast.<sup>18</sup>

Staff believes that in its next IRP, the Company should address what impacts (if any) it has seen from the pandemic. The Company should address the pandemic's effects on its demand forecast, gas price forecast, and conservation achievement, as well as any other aspect of the forecast that has been impacted.

### *Peak Day Standard*

Cascade calculates its peak day usage based on a "coldest day in 30 years" methodology.<sup>19</sup> Under this method, the Company calculates its system-weighted heating degree days (HDDs) for its single coldest day in the past 30 years. For the 2020 IRP, this day falls on December 21, 1990. By the time it performs its next IRP, that date will fall outside the 30-year timeframe. Therefore, for its next IRP, Cascade will need to calculate a new peak day using fewer HDDs than used in the current IRP (unless, of course, an even colder day occurs in the interim). Further, Staff notes that Cascade is the only one of the state's four investor-owned natural gas utilities to utilize a simple "historic coldest day" peak day methodology.<sup>20</sup>

While Staff is not stating here that the current methodology is wrong, the fact that the current peak day is about to fall outside the existing dataset presents an opportunity for Cascade to examine its methodology and determine if it is still the most appropriate one going forward. Therefore, Staff expects Cascade to analyze different options for calculating its peak day

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<sup>18</sup> 2020 Cascade IRP at 3-7.

<sup>19</sup> *Id.* at 3-5.

<sup>20</sup> 2021 PSE IRP at 9-15, figure 9-6.

standard, and present TAG members with an analysis showing why the current methodology remains appropriate, or, if it chooses to make a change, why the new methods are appropriate.

### *Impacts of Climate Change*

In addition to examining its peak day methodology, Staff believes the Company should take the opportunity to examine how it incorporates historical weather into its demand forecast. Currently, the Company uses the most recent 30 years of weather history from its seven weather stations to create its "normal" weather forecast. However, the Northwest Power and Conservation Council (NPCC or Council) intends to incorporate climate change into its 2021 Power Plan by including projections of future weather as part of its demand forecast. While the Power Plan is focused solely on electric generation, Staff nonetheless thinks Cascade should take a cue from the Council and analyze whether it should incorporate climate change into its expected weather forecast. The Company could do so in various ways, including by using only more recent weather data (such as 15 or 20 years rather than 30) to create its forecast, or looking at projections for future temperatures. The Company should present this analysis and propose any recommended changes early in its next IRP process. This recommendation is not intended to change the Commission's approach to weather normalization as part of ratemaking.

### *Upstream Greenhouse Gas Emission Accounting*

In keeping with RCW 80.28.380 and 80.28.395, the Commission in its 2018 IRP acknowledgement letter required the Company to incorporate the social cost of carbon in its 2020 IRP.<sup>21</sup> The 2020 IRP, then, marks the first time that Cascade has included upstream emissions from natural gas in its modeling. The Company made several assumptions in its upstream emissions modeling, two of which Staff takes issue with.

First, Staff has some concerns around the emissions rate that Cascade chose to use for the gas it purchases from the Rocky Mountain region. The Company set this upstream emissions loss rate at 1.0 percent, based largely on an analysis from the American Gas Association.<sup>22</sup> The Council has also been working on a methodology for including upstream emissions in the 2021 Plan. Council staff's recommendation for an upstream emissions rate from the Rocky Mountains was 2.47 percent, which represents the low end of a series of studies measuring fugitive natural gas emissions performed by the Environmental Defense Fund.<sup>23</sup> The 1.0 percent rate used by Cascade, then, is lower than what Council staff recommended, and is also lower than most of the studies analyzed by Council staff in setting its rate. Commission Staff is therefore concerned that this rate may be too low.

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<sup>21</sup> 2018 Cascade IRP, letter dated July 8, 2019, p. 7.

<sup>22</sup> American Gas Association, "Understanding Updates to the EPA Inventory of Greenhouse Gas Emissions from Natural Gas Systems", June 2020. Available at <https://www.aga.org/globalassets/research--insights/reports/ea-2020-01-updating-the-facts-of-ghg-inventory.pdf>.

<sup>23</sup> Presentation to the Northwest Power and Conservation Council, "Upstream Methane & the 2021 Power Plan", June 16, 2020. Available at [https://www.nwcouncil.org/sites/default/files/2020\\_0616\\_2.pdf](https://www.nwcouncil.org/sites/default/files/2020_0616_2.pdf).



Second, Staff is concerned with the number Cascade chose to use for the global warming potential (GWP) of methane. GWP measures “the total energy added to the climate system by a component in question relative to that added by [carbon dioxide, CO<sub>2</sub>].”<sup>24</sup> Cascade chose to use a 100-year GWP number of 25. This number came from the Intergovernmental Panel on Climate Change’s (IPCC) Fourth Assessment Report (AR4), released in 2007. However, the IPCC released its Fifth Assessment Report (AR5) in 2014. AR5 updated methane’s GWP figure to 28-34 over 100 years.<sup>25</sup> Cascade contends that it used the AR4 figure because the United Nations Framework Convention on Climate Change’s instructions indicate that GHG inventories should utilize AR4 figures. Staff acknowledges this but also acknowledges that AR5 includes up-to-date science and contends that for modeling purposes it is more appropriate to use AR5’s figures.

Staff recognizes that there are many ways to model upstream emissions, and the science is not settled. However, given that, Staff believes it is reasonable for Cascade to work with its TAG during the 2023 IRP cycle to further refine these inputs, as well as the other inputs into its upstream emission calculation. At the least, Cascade should consider one or more scenarios around its upstream emission modeling that vary the GWP, upstream emission rate, and possibly other inputs so that stakeholders can see what differences result from varying the inputs.

### *Avoided Cost Formula*

In its avoided cost formula for the 2020 IRP, Cascade applies a 10 percent environmental adder to the commodity and carbon compliance portions of the formula.<sup>26</sup> This environmental adder is similar to the 10 percent credit the Council applies to conservation resources according to the Northwest Power Act.<sup>27</sup> While the Council’s methodology is only directly applied to electricity generating resources, it is worthwhile to note that the 7<sup>th</sup> Power Plan (released in 2016) applies this credit to its full avoided cost formula, not just the commodity cost.<sup>28</sup> Further, the Energy Trust of Oregon updated its natural gas avoided cost formula in 2017 to apply a 10 percent adder to avoided supply and distribution capacity costs.<sup>29</sup> While recognizing that neither the Northwest Power Act nor the Council’s electric methodology specifically apply to a natural gas utility, Staff

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<sup>24</sup> Myhre, G., D. Shindell, F.-M. Bréon, W. Collins, J. Fuglestedt, J. Huang, D. Koch, J.-F. Lamarque, D. Lee, B. Mendoza, T. Nakajima, A. Robock, G. Stephens, T. Takemura and H. Zhang, 2013: *Anthropogenic and Natural Radiative Forcing*, Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 711. Available at <https://www.ipcc.ch/report/ar5/wg1/>.

<sup>25</sup> *Id.* at 714.

<sup>26</sup> 2020 Cascade IRP at 5-2.

<sup>27</sup> Northwest Power Act, §3(4)(D), 94 Stat. 2699.

<sup>28</sup> Northwest Power and Conservation Council, “Seventh Northwest Conservation and Electric Power Plan”, appendix G, p. G-17.

<sup>29</sup> Energy Trust of Oregon, “Energy Trust Electric and Gas Avoided Cost Update for Oregon for 2018 Measure and Program Planning”, August 2017, p. 6. Available at <https://www.energytrust.org/wp-content/uploads/2018/01/Energy-Trust-Avoided-Cost-Update-for-Oregon-2018.pdf>.

believes it would be worthwhile for Cascade to examine whether its 10 percent environmental adder should be applied to more than just the commodity and carbon portions of its avoided cost formula.

### *Impacts of Electrification and Natural Gas "Bans"*

Movements are afoot in various parts of the country to eliminate natural gas from building fuel supplies. Some localities have gone as far as "banning" new natural gas hookups, while others have focused on incentivizing building electrification.<sup>30</sup> As Cascade notes in its IRP, in its Washington territory, the city of Bellingham has discussed taking such steps as part of its Climate Action Task Force.<sup>31</sup> Staff believes that efforts to reduce natural gas use by localities warrants investigation via a scenario analysis. For its next IRP, Cascade should develop one or more scenarios where localities in its service territory pass ordinances encouraging electrification or outright banning natural gas to analyze the impact such measures would have on its resource needs.

### *Renewable Natural Gas Modeling and Evaluation Tool*

The Commission's 2018 IRP acknowledgement letter encouraged the Company to model RNG projects in future IRPs.<sup>32</sup> Cascade responded by presenting a RNG cost effectiveness evaluation formula and introduced a pair of scenarios that introduce RNG as a resource.<sup>33</sup> One scenario modeled an on-system RNG source (meaning a source that could connect directly into Cascade's distribution system), while the other modeled an off-system RNG resource (one that would require upstream transmission capacity to deliver). Staff appreciates this approach and believes it is a good start to modeling RNG's usefulness as a resource. In its next IRP, Cascade should discuss what technical potential for RNG it sees in its territory, as well as where (geographically) that potential might be located. Additionally, Cascade should continue to refine the data and methodology that go into its modeling and evaluation tool. Finally, the 2023 IRP should address whether the Company sees any potential in renewable hydrogen as a possible resource within the planning period.

### *Validation of Methods*

In its 2018 IRP acknowledgement letter, the Commission suggested that Cascade review its methods to validate whether they were producing accurate results.<sup>34</sup> To meet this request, Cascade produced an analysis of its demand forecast for two citygate stations that were chosen

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<sup>30</sup> Tom DiChristopher, 'Banning' Natural Gas is Out; Electrifying Buildings is In, (July 8, 2020), <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/banning-natural-gas-is-out-electrifying-buildings-is-in-59285807>.

<sup>31</sup> 2020 Cascade IRP at 6-14.

<sup>32</sup> 2018 Cascade IRP, letter dated July 8, 2019, p. 7.

<sup>33</sup> 2020 Cascade IRP, chapter 8.

<sup>34</sup> 2018 Cascade IRP, letter dated July 8, 2019, p. 7.

because they were representative of all the Company's citygate stations. This is a good start, but Staff believes this effort could go further in two ways.

First, the analysis as presented in Chapter 3 of the IRP is lacking. It consists of one paragraph that discusses how the Company conducted this validation, and two graphs. What is needed here is some discussion of what the analysis tells the Company. For instance, what conclusions or new directions for exploration do these initial results reveal? In future validation analyses, Cascade should explain its conclusions from the data rather than just present the data itself.

Second, while the demand forecast analysis is helpful, there are several other aspects of the IRP that the Company should validate as well, including (but not limited to) the price forecast. While Staff would not necessarily expect all these analyses to be written about in the body of the IRP (perhaps an appendix and/or presentation during TAG meetings is appropriate), where Cascade does provide such analysis, it should explain what the data tells the resource planning team.

Staff expects Cascade to continue to validate that the methods it uses are producing accurate results and report the results of additional validation studies to the TAG as appropriate.

#### *Encouraging Participation in the IRP Process by Additional Stakeholders*

The Commission's final recommendation in its 2018 acknowledgement letter was to encourage Cascade to keep trying to engage new stakeholders in the IRP process.<sup>35</sup> The Company continued its outreach efforts, such as by scheduling one of its TAG meetings in Bellingham, rather than at SeaTac International Airport where the other TAG meetings were scheduled. The goal of holding a TAG meeting in Bellingham was to have a meeting closer to Cascade's customer base, particularly in a part of its service territory that has been aggressively pursuing local GHG emission reduction goals, and thus making in-person participation a bit easier. Unfortunately, due to the COVID-19 pandemic, all TAG meetings ended up being held remotely with no in-person attendance. This stakeholder outreach effort is still worth pursuing, and Cascade should schedule at least one TAG meeting during its next IRP cycle in Bellingham or some other portion of its service territory.

#### **Additional Staff Recommendations**

Staff acknowledges that information such as that conveyed through an IRP is not easy to communicate. Nevertheless, Staff believes the narrative and graphics contained in the final 2020 IRP document could do a better job of conveying that information, and offers some thoughts on how to accomplish this:

- Interpret or explain results rather than simply state them. Too often, the IRP presents results, but the reader is left wondering how to interpret those results, or what the key takeaway should be. Staff cites as an example the validation of Cascade's demand

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<sup>35</sup> *Id.* at 8.

forecasting (discussed previously), which presented the analytical methods and displayed two graphs with results but did not explain what those results told Cascade's resource planning team. Cascade needs to do a better job at supplying such explanations.

- Incorporate a historical perspective when it would provide the reader with additional useful context. This could be accomplished, for example, by comparing one IRP's results to those of its predecessor and explaining any significant differences, such as when the demand forecast increases from one IRP to the next.
- Consider using additional graphics or examples as needed. As both a member of the IRP TAG and a reader of the IRP itself, Staff sometimes finds the explanations provided in the TAG meetings to be clearer and more easily understood than those in the final written document. Staff suggests that Cascade consider creatively using some of the graphics and explanations provided in the TAG meetings in the final written IRP to explain complex topics.
- As it makes these improvements, the Cascade team should strongly consider engaging a technical editor as needed to improve the clarity and readability of the final product.

In addition to the recommendations mentioned above, Staff agrees with Cascade's two-year action plan consisting of new and ongoing activities planned for its 2023 IRP.

### **Public Comments**

The Commission posted a Notice of Opportunity to File Written Comments in Docket UG-190714 on April 28, 2021, with a comment due date of May 27, 2021. As of May 25, the Commission had received no comments in the docket.

### **Closing Remarks**

Staff notes that the direction and forecasts indicated by the results of Cascade's 2020 IRP are not binding on the Company.

The work plan for the 2023 Cascade IRP should be filed with the Commission by February 26, 2022. Staff looks forward to working with Cascade and stakeholders again during the development of its 2023 IRP.