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June 20, 2018

Oregon Public Utility Commission Attn: Filing Center P.O. Box 1088 Salem, OR 97308-1088

RE: Cascade Natural Gas Corporation's Final Response Comments regarding LC 69 2018 Integrated Resource Plan

Attention: Filing Center

Attached is Cascade Natural Gas Corporation's Final Response Comments regarding LC 69 2018 Integrated Resource Plan ("IRP").

If there are any questions regarding this request, please contact me at (509) 734-4589 or via email at mark.sellers-vaughn@cngc.com or Brian Robertson at (509) 734-4546 or via email at Brian.Robertson@cngc.com or Brian Robertson@cngc.com.

Sincerely,

CASCADE NATURAL GAS CORPORATION

Mark Sellers-Vaughn

Manager, Supply Resource Planning

BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

In the Matter of

CASCADE NATURAL GAS COMPANY dba CASCADE NATURAL GAS, 2018

Cascade Natural Gas Responses to Final Comments

2018 Integrated Resource Plan (LC 69)

CASCADE NATURAL GAS CORPORATION

June 20, 2018

Introduction

Cascade Natural Gas (Cascade, CNG or Company) files these response comments regarding the Cascade 2018 Integrated Resource Plan (IRP or Plan), filed in Docket No. LC 69. In conjunction with the filing of these responses, Cascade also files an amended four-year action plan as recommended by Commission Staff in their final comments on June 1, 2018.

Opening Remarks

Cascade appreciates all the feedback the IRP stakeholders (Staff, CUB, AWEC, etc.,) have provided, not only during the two rounds of comments, but during the entire IRP process as well. The goal of the IRP process is to produce a plan that addresses meeting long term load giving consideration to the best combination of expected costs and associated risks and uncertainties for the utility and its customers. Cascade strongly believes this process is best accomplished with input from all stakeholders.

The Company responded to over 50 data requests received from various stakeholders. In addition, as Staff indicated in their final remarks, Cascade and Staff participated in an informal and collaborative work session with Staff during a teleconference. Cascade also had several communications with other stakeholders, such as the Citizens Utility Board (CUB) to provide supplemental information and to discuss expectations for future IRPs.

Cascade notes that the Company received significant feedback and questions from stakeholders following the filing of the final 2018 IRP. The Company will always endeavor to encourage stakeholder feedback, questions and suggestions to assist Cascade in producing an IRP that meets the regulatory requirements and the needs of Cascade's customers. Cascade prefers to receive feedback as early as possible in the process (e.g., in the course of its five technical advisory group meetings or soon thereafter) so that the Company has a better opportunity to address questions or analyze/apply more of stakeholder suggestions. Cascade recognizes that all parties are extremely busy, but strongly feels that stakeholder participation is crucial from the outset. To this end, the Company looks forward to working with Staff and other stakeholders to find ways to improve participation in Cascade's IRP process so that stakeholder feedback has an enhanced opportunity to influence the development of the Company's future IRPs.

Cascade's Response to Staff's Final Comments

The following bullets are recommendations made by Commission Staff in their final comments along with the Company's response to each recommendation.

Staff's Recommendations regarding Demand Forecasts

In future IRPs, Cascade amend its forecasts to utilize a process that:

- Checks for autocorrelation;
- Uses an automated stepwise regression function available in such software packages as SAS or R
- The Company provide all input files to replicate the Company's analysis in IRP filings.

The load forecast methodology used in Cascade's 2018 IRP did provide for steps to check for autocorrelation. The Company will add narrative related to how it accomplishes this in future IRPs. Additionally, Cascade is currently utilizing auto ARIMA functionality in R for its 2018 IRP in Washington, and plans to do the same for future IRPs in Oregon. The Company will work with Staff and other stakeholders to provide the input files needed to replicate the Company's IRP analysis. Please note that Cascade's distribution system is non-contiguous and covers a wide geographical area and much of our load is in small towns. The Company understands that Staff needs to ensure that the Company's forecast methodology and results come from a sound process and will work with Staff to provide the necessary input files to replicate the Company's IRP analyses. Still, in the Company's opinion the Technical Advisory Group meetings provide the best forum to review and critique Cascade's forecast methodology. In addition to providing Staff with the requested files, Cascade will propose adding additional TAGs to walk Staff and other stakeholders through specific modeling efforts to minimize any potential forecast confusion when Staff or other stakeholders attempt to replicate the Company's forecast.

Staff's Recommendations regarding Supply Side Resources

- In future IRPs, the Company provide its load forecasting data with its initial IRP filing.
- The Company model the impact of lower than projected energy efficiency savings on supply availability in its 2018 IRP update.

Regarding the forecasting data, please refer to Cascade's earlier response to *Staff's Recommendations to Demand Forecast*. As Staff noted, the Company has previously agreed to model the impacts of lower than projected energy efficiency savings as described in Staff's recommendation.

Staff's Recommendations regarding Avoided Costs

Include unrealized distribution costs in its avoided cost calculation;

- Include a measure of price certainty (risk premium) in the Company's future avoided cost calculation; and
- Utilize a realistic and justifiable estimation of the price of carbon compliance.

The Company will continue to examine how avoided distribution costs resulting from energy conservation can be integrated into the Company's avoided cost calculation with guidance from Staff and other stakeholders as active participants in the avoided cost Docket UM 1893.

The Company respectfully disagrees with Staff's contention that it is unlikely that indirect rebound (also known as snapback) has any relevance to the certainty provided by DSM programs versus market pricing, particularly for low-income customers. Cascade looks forward to further discussions with Staff and other stakeholders through the Company's continued participation in Avoided Cost Docket UM 1893. Cascade appreciates the opportunity to work with Staff and others through both this forum, and in the lead-up to the next IRP to further refine the Company's avoided cost calculation.

In the Company's Response Comments and supplemental filing, Cascade agreed with Staff that the Company's price of carbon compliance requires improvement and additional justification. Cascade appreciates Staff's recognition that given that no significant resource acquisitions are required in the Company's four-year action plan that improvements to Cascade's carbon pricing can be developed in time for the 2020 IRP. Cascade will continue to actively monitor relevant carbon policy and will work with Staff to more effectively integrate such costs into the Company's modeling as appropriate. Additionally, Cascade will continue to coordinate internally, and with the Energy Trust of Oregon, to provide an update to the 2018 IRP as to how the Company will achieve these requirements.

Cascade's response to Staff's Demand Side Management comments

The Company intends to work with Staff via UM 1839, the Energy Trust of Oregon, and other stakeholders as appropriate, to develop an avoided cost value for its distribution system, and will incorporate that component into the Company's avoided cost calculations once a viable value is determined.

Staff's Recommendations regarding Resource Integration

• Evaluate the cost of purchasing incremental GTN capacity now versus in 4 years.

• Consistent with Cascades representations at the Commissioner workshop, the Company will make plans to secure resources to meet the anticipated 2022 shortfall along the I-5 corridor prior to the acknowledgement of this IRP.

Based on current information (as of June 7, 2018) from conversations with GTN, incremental capacity should be available to Cascade at the current rates (subject to any adjustment in GTN's next rate case) today as well as in four years. The Company is committed to perform this analysis at least quarterly for review by Cascade's Gas Supply Oversight Committee (GSOC), who must approve any incremental capacity acquisition. The Company will provide the status of these analyses in the Company's IRP Update filing. As noted earlier, in conjunction with the filing of these responses, Cascade has filed an amended four-year action plan as recommended by Commission Staff in their final comments on June 1, 2018.

Staff's Recommendations regarding Distribution System Planning

• Cascade develop a methodology to incorporate distribution system costs into its avoided cost calculation in its next IRP.

Cascade is committed to incorporating distribution system costs into the avoided cost calculation of the 2020 IRP. As noted earlier, the Company feels participation in UM 1893 will allow Cascade to work with Staff and other stakeholders to develop the best methodology for incorporation into the Company's next IRP.

Staff's Recommendations regarding Action Plan

- The Company provide its load forecasting data in its 2020 initial IRP filing;
- Evaluate the cost of purchasing incremental GTN capacity now versus in 4 years;
- The Company update its Action Plan to include a timeline and plan for how it plans to acquire resources to meet the anticipated 2022 shortfall along the I-5 corridor;
- Cascade develop a methodology to incorporate distribution system costs into its avoided cost calculation in its next IRP.

The Company will provide load forecasting data in its 2020 initial IRP filing. Based on current information from GTN incremental capacity should be available to Cascade at the current rates (subject to their next rate case) today as well as in four years. In conjunction with the filing of these comments, the Company has submitted an updated Action Plan, expanding on the timeline and plans to acquire resources to meet 2022 anticipated shortfall along the I-5 corridor.

Cascade feels it is important for the Company to provide an additional comment regarding the I-5 corridor. In Staff's final comments, Staff uses the phrase "...the Company will make plans to secure resources to meet the anticipated 2022 shortfall along the I-5 corridor prior to the acknowledgement of this IRP." The Company assumes Staff is referring to ensuring that Cascade includes an expanded timeline and plan in the four-year action plan for addressing the anticipated I-5 corridor shortfall in 2022. The Company believes that while Cascade will certainly provide a more detailed I-5 capacity procurement plan, CNG cannot guarantee capacity negotiations and discussions with the Washington regulators (who will incur the majority of any incremental I-5 capacity costs) and the upstream pipeline will be completed before July 31, 2018. A fixed date in such a short timeline would give the upstream pipeline inappropriate leverage during these negotiations. Cascade is clarifying this is not Staff's intent, yet the Company is compelled to provide these additional comments about the I-5 capacity acquisition process.

Finally, as stated earlier, the Company is actively working internally with input from stakeholders involved with UM-1893 plus consulting ETO and other LDCs to develop a methodology to incorporate distribution system costs into Cascade's avoided costs calculation. Cascade will provide the status of the development of this methodology in the Company's IRP Update.

As previously stated, the Company appreciates the Staff's attention to Cascade's IRP and that of other stakeholders. Cascade looks forward to the next IRP cycle and is committed to working with all stakeholders.

This concludes Cascade's comments.

Dated at Kennewick, Washington, this 20th day of June 2018.

Mark Sellers-Vaughn

Manager, Supply Resource Planning