

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 59

In the Matter of

CASCADE NATURAL GAS
CORPORATION

2014 Integrated Resource Plan Update

Staff's Comments

Background

Cascade Natural Gas Corporation (Cascade or Company) filed an update¹ in Docket No. LC 59,² its 2014 Integrated Resource Plan (IRP), on February 3, 2017. The Company previously had been directed by the Commission to meet certain requirements with this filing, per Staff's recommendation adopted by Commission Order No. 16-054 on February 9, 2016.

In Order No. 16-054, the Commission found that Cascade did not adequately address Staff's and CUB's comments, and that Cascade's 2014 IRP generally failed to meet the Commission's IRP Guidelines. Consequently, the Commission did not acknowledge the Company's 2014 IRP, and required that Cascade respond to five specific action items in its IRP Update:

1. Action Plan

Present an Action Plan with Action Items meeting IRP Guideline 4n, and revise Action Items 1 and 9 to be specific and measurable;

2. Oregon Shortfall

Include the missing central Oregon shortfall resolution action item in the Action Plan;

¹ See 860-027-0400, Integrated Resource Plan Filing, Review, and Update, available at http://arcweb.sos.state.or.us/pages/rules/oars_800/oar_860/860_027.html

² Docket No. LC 59, available at <http://apps.puc.state.or.us/edockets/docket.asp?DocketID=18822>

3. Resource Deficiency

Resolve the apparent conflict, noted in Staff's final comments, between the Oregon resource deficiency depicted in Figures 7-B-2 and 7-C-2 and described in the LC 54 Second Supplemental Update, and the Appendix Section F load-resource balance figures;

4. Reduced Peak Load

Present an analysis to show how much the peak day load could be reduced or delayed by accelerated DSM and recallable service agreement program; and

5. Cascade's IRP Staffing

Evaluate its staffing approach and make changes where needed, to ensure that its required regulatory IRP activities are performed on schedule and in compliance with Commission requirements.

Cascade Update

In its update, Cascade:

- Presented revised Action Items 1 and 9;
- Proposed deliverables to address the missing central Oregon shortfall resolution action item in the Action Plan;
- Proposed an analysis to address the apparent conflict, noted in Staff's final comments, between the Oregon resource deficiency depicted in Figures 7-B-2 and 7-C-2 and described in the LC 54 Second Supplemental Update, and the Appendix Section F load-resource balance figures;
- Presented an analysis to show how much the peak day load could be reduced or delayed by accelerated DSM and recallable service agreement programs; and
- Reported on its staffing approach strategy to ensure that its required regulatory IRP activities are performed on schedule and in compliance with Commission requirements.

Staff Analysis

Staff's initial review of Cascade's 2014 IRP Update resulted in concerns about whether the Company had complied with Commission Order No. 16-054. Cascade worked with Staff and other Stakeholders to alleviate many, if not all, of these concerns by answering questions and providing additional technical detail that had not been included in the Update.

Following multiple conference calls between Staff and the Company, and an LC 59 Update public workshop held on March 27, 2017, Staff believes Cascade has complied with Commission Order No. 16-054.

Action Items

Action Item 1

Staff believes that, although Cascade's revised Action Item 1 is not succinctly written in its Update, it is specific and measurable (as described in later oral and written communications with the Company) and does comply with the Commission Order.

In Order No. 16-054, the Company was ordered to revise Action Items 1 and 9 to be specific and measurable. Below are items 1 and 9 from the Action Plan as they were included in Cascade's 2014 IRP, followed by revised Action Items as included in the IRP Update.

Action Item 1

As filed:

"In continuing efforts to create a more accurate load forecast, Cascade will research the viability of expanding the detail of the data by determining therm usage per customer per degree day by customer class (residential, commercial, etc.) along with the non-heat sensitive baseload usage. This is largely dependent upon the capabilities of the Company's new Customer Information System which came on-line in July 2010. We are continuing to work toward generating reports and data extracts from the new system to improve the forecast process."

Revised:

"The Company revises the above action item into the following two action items:

Action Item 1.A

Cascade will improve its demand forecast by developing a report to track the issuance of corrected bills and reclassifying therms from corrected bills to the month those therms were used."

Action Item 1.B

"In its next IRP, Cascade will use its new Statistical Analysis Software (SAS) to test non-linear weather effects on natural gas, to perform analysis on potential serial correlation problems, and to create a time series autoregressive integrated moving average (ARIMA) model for customer forecasting."

Action Item 9

As filed:

"The Company will continue to monitor the futures market for price trends and will evaluate the effectiveness of its risk management policy. Implementation of Dodd-Frank in the coming year raises potential administrative challenges from a reporting standpoint; additionally it is unknown how the costs associated with the use of clearinghouses might impact prices of natural gas in the future."

Revised:

“As part of the Cascade’s risk management policy and implementation, the Company will report on the status of the UM 1720 as well as related risk management policy enhancements to Cascade’s risk management policy at the first Purchased Gas Adjustment (PGA) quarterly meeting with OPUC Staff in early 2017. This docket is the Commission’s Investigation into Long Term Hedging Policy.”

Based on the IRP Update submitted by Cascade on February 3, 2017, Staff did not believe that the revised Action Items were sufficiently specific or measurable to satisfy the Commission order. However, in later written and oral communications, including those described in a public workshop, Staff believes that Action Item 1 is specific and measurable. The Company provided sufficient rationale and support for its modelling strategies (such as data sources and model parameterization) for testing nonlinearities in the model and to address potential serial correlation problems. Cascade described in specific and measurable detail its strategies for modeling residential, commercial, and industrial load forecasts, as well as their methods for testing for statistical significance across spatial and temporal scales. Staff believes the sources (such as those derived by the Company from its Customer Care and Billing System) are reasonably robust and reliable for the modeling problem. Staff finds that revised Action Item 9 is specific and measurable in that it obligates the Company to provide information at a specific meeting. This Action Item 9 is also measurable in that the delivery of the promised information at the first PGA quarterly meeting in 2017 will satisfy this Action Item.

Action Item 2

Missing Oregon Shortfall

In Commission Order No. 16-054, the Commission required that Cascade include the missing central Oregon shortfall resolution Action Item in the Action Plan. In its Update, the Company provided deliverables aimed at addressing future resource deficiencies. The following is a summary of the items the Company states will be completed and presented to Staff by August 2017, as well as in upcoming 2018 IRP TAG meetings in that will begin in May of 2017:

- Cascade will work with Northwest Pipeline (NWP) to define what transportation capacity delivery rights can be contractually realigned to meet potential shortfalls. The Company began the assessment in 2016 and will complete it by July 1, 2017.
- Cascade will develop a city gate study, inclusive of both core and non-core customers. The Company began the study in 2016 and will complete it by July 1, 2017.
- Cascade will use the results of the city gate study to confirm level of incremental capacity on Gas Transmission Northwest (GTN) needed. Upon determination of incremental capacity needed, Cascade will begin negotiations with TransCanada for the needed incremental GTN capacity.

- Cascade will use the results of the city gate study to assess which alternative resources, including satellite LNG and incremental capacity on GTN, are least cost resources for meeting the Company's shortfall. The Company will determine if satellite LNG is a proper solution by July 1, 2017.
- Cascade will work with NWP and potentially other regional Load Distribution Centers (LDCs) to determine if a combination of I-5 corridor, Wenatchee, etc., upstream pipeline expansion or segmentation can address shortfalls and regional infrastructure concerns. The Company will complete this assessment by July 1, 2017.

Upon review of Cascade's 2014 IRP Update, and as articulated by the Company at the March 27, 2017, public workshop, Staff is satisfied that the Company has shown sufficient progress towards meeting these deliverables. The Company has initiated discussions with GTN and is working on a proposal for a ten or twenty year Kingsgate to Malin capacity. In addition, the Company has been holding periodic discussions with NWP to discuss supply source and loads. The Company has also evaluated station upgrades within the state of Oregon, and has commenced a city gate study within the state to evaluate load allocations. Staff is satisfied with the progress Cascade is making on these matters, and encourages the Company to build upon the city gate study by incorporating geospatial analytics for the next IRP cycle.

Action Item 3

Resource Deficiency

Cascade was ordered to resolve the apparent conflict, noted in Staff's final comments, between the Oregon resource deficiency depicted in Figures 7-B-2 and 7-C-2 and described in the LC 54 Second Supplemental Update, and the Appendix Section F load-resource balance figures.

In its IRP Update, the Company states that the 2014 IRP and the second supplemental update included errors that have since been corrected during the Company's ongoing planning process. In Cascade's 2016 IRP filed in Washington in Docket No. UG-160453, the Company states that it has improved its long-term demand forecast. During this more current IRP process, the Company also considered a host of resource alternatives that could be added to its resource portfolio, including additional conservation programs, and incremental off-system storage alternatives. The Company also identified potential capacity shortfalls in Oregon in its Update.

The Company acknowledges that infrastructure for transmission and delivery are insufficient to meet delivery demands, and states that it could minimize the need to secure incremental transportation through the acquisition of city gate peaking resources which include both the supplies and the associated pipeline delivery for a certain number of days or through the purchase of other's excess capacity through short or medium term capacity releases. Cascade also states that it will be working with both GTN and NWP to realign its delivery rights, also known as Maximum Daily Delivery Obligations (MDDOs) prior to July 2017. Finally, the Company will work with the two

pipelines and regional LDCs to identify potential system expansions to address the shortfalls that are anticipated in the region, such as Cascade's Hermiston and Nyssa-Ontario city gates. However, the Company does not indicate that any firm steps have been taken towards meeting these resource needs, and provides no specific logistic or cost rationale for how it plans to accomplish this.

Staff believes that Cascade has taken steps to resolve the apparent conflict between the resource deficiency and load-balance figures, although more work will be required to meet the resource deficiency. Staff expects that the Cascade will continue its discussions with the pipelines and with other LDCs in an effort to close the existing shortfall.

Action Item 4

Accelerated DSM

In its filed IRP Update, Cascade was ordered to present an analysis to show how much peak day load could be reduced by accelerated Demand-Side Management (DSM) and recallable service agreement programs.

In an IRP process, DSM is analyzed on an equal basis with other supply side resources. If a utility can purchase conservation by providing a customer rebate for the installation of an appliance that is more efficient than what is required by code, and the cost of that rebate is less than the cost to serve the next therm of gas, then the expenditure is a prudent, least cost resource. Like any other resource, the cost and availability of therms savings varies from year to year. The planning process establishes annual targets for the acquisition of future DSM. Cascade's current analysis is based on the 2014 DSM forecast as provided by Energy Trust of Oregon to determine what portion of savings might be discretionary and able to be moved forward. Cascade's goal in this exercise is to make an initial determination of whether or not accelerated DSM has the potential to reduce peak day load such that the supply stack might become less expensive over the 20-year planning period in some manner, such as delaying the acquisition of additional capacity. This exercise is a measure of magnitude, not the development of an implementable plan. If accelerated DSM proves to be a viable alternative supply side option, Cascade states that a more exacting and time intensive study would be required to address how accelerated programs would be implemented, what that implementation would cost and, whether with additional costs, the therm savings potential is cost effective. Cascade further states that parties to the IRP process would need to discuss this in more detail, and the Energy Trust of Oregon would need to perform the related economic analysis, as well as undergoing associated program redesign.

The Company presented the 20-year DSM potential forecast in its IRP Update, and developed three accelerated DSM scenarios. Cascade assigned allocation factors for discretionary savings that could be accelerated by customer class, and included detailed justifications and assumptions for each scenario. The Company also analyzed its base case relative to the accelerated DSM scenarios, and provided a comparison of the Gas Transmission Network transportation that would be needed to remedy a capacity shortfall with the DSM base case and three accelerated DSM scenarios.

Cascade also addressed the Recallable Service Agreements in its IRP Update. The Company has a number of tariffed services where a class of customers agrees to maintain standby fuel burning facilities and adequate supply of standby fuel to replace the entire supply of natural gas with alternate fuel, allowing the Company to redirect those natural gas supplies to meet the needs of firm customers on a peak day. Over the next twenty-year planning horizon the Company forecasts having only 23 of these Oregon core interruptible customers by 2036. For purposes of this Update, the Company uses the high growth scenario rather than the medium forecast to illustrate that the volumes available are small, regardless of growth projections. Cascade identified the expected level of natural gas supplies that would essentially be “recalled” from these customers on a peak day for high growth scenarios.

Staff appreciates the Company’s analysis showing how much peak day load could be reduced by accelerated DSM and recallable service agreement programs. Staff believes that the Company analysis is adequate for purposes of the IRP update.

Action Item 5

Staffing

Order No. 16-054 requested that Cascade evaluate “its staffing approach and make changes where needed, to ensure that its required regulatory IRP activities are performed on schedule and in compliance with Commission requirements.”

In its IRP Update, Cascade states that it approved two new IRP analyst positions and created an IRP steering committee. However, the Company has only filled one of these two new positions. Staff, was informed by the Company that there is a current recruitment to fill remaining vacancy, and a consultant has been retained to assist the IRP team until it is fully staffed.

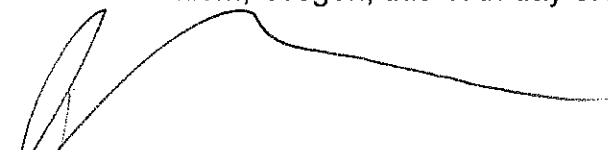
It is Staff’s opinion that Cascade will benefit from selecting a qualified analyst, and that this will be necessary to promote success for the Company’s next IRP cycle.

Summary

Staff is satisfied that Company has complied with Order No. 16-054 and all other relevant orders and rules.

This concludes Staff’s comments.

Dated at Salem, Oregon, this 17th day of April, 2017.



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