[Service Date June 3, 2011]

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Katherine J. Barnard
Senior Director, Regulatory Affairs
Cascade Natural Gas Corporation
8113 W. Grandridge Blvd.
Kennewick, WA 99336-7166

Re: Cascade Natural Gas Corporation 2010 Integrated Resource Plan
Docket UG-091967

Dear Ms. Barnard:

The Washington Utilities and Transportation Commission (Commission) has carefully reviewed the 2010 Integrated Resource Plan (IRP) filed by Cascade Natural Gas Corporation (Cascade or Company) and finds that it meets the requirements of Washington Administrative Code 480-90-238. The Company's work plan for the 2012 IRP is due December 15, 2011. The Company's 2012 IRP is due December 15, 2012.

We remind the Company that this finding does not signal pre-approval of any course of action identified in the IRP for ratemaking purposes. No IRP can determinatively pinpoint the future actions that will minimize a utility's cost. The Company should regularly update the assumptions that underlie the IRP and adjust its operational strategies accordingly. At the time of Cascade's next general rate case or purchased gas adjustment filing, the Commission will give due weight to the information, analyses, and strategies contained in the most recent IRP along with other relevant evidence when determining the prudence of the Company's actions.

The Commission recognizes and supports Cascade's improved ability to use the Sendout® and VectorGas™ computer models. While the Commission encourages cost cutting and economizing efforts of utilities, Cascade must not lose sight of its obligation to maintain the necessary depth of employee capacity to perform these required functions.

Specific comments regarding the IRP are attached.

Sincerely,

DAVID W. DANNER
Executive Director and Secretary

Attachment

Washington Utilities and Transportation Commission Review of Cascade Natural Gas Corporation 2010 Integrated Resource Plan

Summary

Cascade Natural Gas Corporation's (Cascade or Company) Integrated Resource Plan (IRP) contains all the necessary components of a natural gas utility IRP, including demand forecasts, supply forecasts (both conventional and nonconventional), commodity price forecasts, cost projections for resources, assessments of conservation and demand side management (DSM), investigation of storage options, projections of pipeline transmission capability and future availability (including reliability and price estimates), integration of demand and supply to compare portfolio costs using probabilistic outcomes, and a two-year implementation action plan. These specific topics are addressed in more detail below.

In this IRP, Cascade has demonstrated that it has achieved a standard ability to perform probabilistic simulations and to perform multiple scenario analysis. Though the Company should continue to improve its level of expertise and commitment of personnel resources, the Company's 2010 IRP analysis is sound. The cancellation or postponement of pipeline projects and changes in planned Liquefied Natural Gas (LNG) terminals within the industry during the 2010 IRP planning period reinforces the need for multi-scenario planning and an IRP that contains a thoughtful discussion of resource choices.

Cascade modeled three explicit future scenarios with carbon costs. As an alternative to the use of an explicit scenario with carbon costs, Cascade uses a ramped 20 percent environmental adder to represent environmental cost and carbon emission costs. As discussed below, this method will need to be revisited in the Company's next IRP.

As with past IRP analysis, the Cascade considers the acquisition of gas storage to be desirable. Though the IRP results do not predict significant hub differentials, seasonal variation in natural gas prices and demand represented in the IRP make storage an attractive option for the Company.

Cascade uses an avoided cost of seventy cents per therm for conservation reflecting expected gas prices and the Company's 20 percent environmental adder. The IRP does not project that the lower avoided costs will significantly affect the adoption of conservation measures by customers as compared to its previous IRP projections.

Cascade's IRP shows a capacity resource need beginning in 2016. The Company's Action Plan does not call for any resource acquisitions in the two year time frame. However, the Action Plan calls for the Company to actively monitor and explore specific resource opportunities during the two year period.

As stated in the last IRP acknowledgement letter, Cascade's development of conservation in its IRP should go beyond an "assessment of currently employed" programs available in the utility industry.[1] Cascade should use the IRP as an opportunity to assess "new policies and programs needed to obtain the conservation improvements."[2] At best the Company's accomplishments in this area are sub-par. Decided improvement will be necessary in its next IRP to assure the fulfillment of WAC 480-90-238 and to ensure recovery of all the costs of purchased gas.

Demand Forecasts

Resource plans begin with an assessment of future demand. Cascade makes several changes to its demand forecast methodology in this IRP. However, similar to the economic conditions during the development of the previous IRP, the volatile economic conditions during the development of this IRP render the projection of short-term demand forecasts in the IRP more tenuous than under normal economic conditions.

- Cascade should closely monitor the rate of load growth during the two-year period for signs of the continuation of a slow economic recovery and its effect on the Plan's load projection.

Cascade used the following procedure to produce low, medium and high long-term demand forecasts:

1. Estimate of customer count growth. Cascade used econometric models to estimate increase in core residential, commercial and industrial customers. Model inputs included population household count forecasts, employment opportunities, the housing market (residential measured by 30 year mortgage rates) and the prime interest rate for commercial and industrial customer growth. This approach was mostly unchanged from the previous IRP.
2. Estimate of use per customer. Cascade estimated usage per customer based on heating degree-days, relative fuel prices and real personal income. Cascade typically uses Wood & Poole data over the entire 20-year planning horizon. In this IRP, Cascade altered its inputs for unemployment, payroll and the GDP used to make short growth projections. Cascade used the Wall Street Journal survey of leading economists' predictions of those indicators in place of Woods and Poole's 2010 and 2011 growth estimates. Cascade's adjustment is

[1] WAC 480-90-238 (3)(b).

[2] *Id.*

an appropriate and necessary measure considering the condition of the economy.

3. Estimate growth in peak day use. Consistent with the change in its 2008 IRP, the Company used the coldest day in the last 30 years (61-degree design day) to project peak demand. The Commission considers 30 years to be a fairly short period for capturing all weather extremes. As Cascade gets closer to its peak resource deficit, it should revisit the rigor of its reliability analysis under this assumption.

4. Zonal demand. Cascade models each district within a zone. In its previous IRP, Cascade's zonal modeling included a mix of district level and town level modeling. Cascade states that the consistency of using only district level modeling is an improvement over the previous blended approach. Zones represented groups of city gates between which there are no significant pipeline constraints.

5. Forecasted total gas use. Unlike the previous IRP, Cascade provides an explicit explanation of how it derived its high and low gas use forecast. Cascade's low and high forecast growth scenarios are created by altering the forecast to reflect Cascades' service territory's strongest and weakest performing decades over the last 30 years. Cascade's method may represent an overly optimistic growth rate for the "high" growth scenario. Cascade does not supply any present evidence for the economic conditions that would support high growth scenario commensurate with the strongest performing decade of the last 30 years. The Commission does not consider the use of some portion of historic data in a forecast of some select future time period to be justifiable solely on the grounds that such an historic period occurred in the past. Support from current economic conditions should at least help guide the boundaries of high and low growth scenarios.

Demand-Side Management

The Company's analysis of conservation resources has greatly improved since the last IRP. While the Company's 2011 Washington combined customer target of approximately 708,000 therms is modest, the projected ramping of increased annual therm savings over the planning horizon – especially in the near term years – is a positive outcome. The Company has expanded the measures it reviewed for consideration as possible achievable measures and has done a much better job defining the marginal cost curve for conservation. However, the Company needs to take steps to connect the

detailed analysis of conservation measures and programs to the projected conservation achievement.

- In the next IRP, Cascade should include a complete description of all the conservation programs, perhaps in an appendix, detailing the expected participation in the current time period as well as projections of participation levels for the planning time horizon.

It is also helpful for an IRP to provide an understanding of the historic conservation achievement.

- In its next IRP, Cascade should include a commitment to provide annual reporting of achieved conservation for the calendar or fiscal year in the two year action plan.

The IRP contains a clear discussion of the construction of the avoided costs used as an input to calculate the achievable conservation levels. However, the cost-effectiveness tests the Company used and how the Company set the incentive levels for conservation measures is not well described.

- The Company should specify and describe clearly in the next IRP how cost-effectiveness is used in planning and managing its conservation programs, such as which tests are used (Total Resource Cost, Utility Cost). This should include how the Company sets the incentives.

The Company examined three scenarios that explicitly model greenhouse gas costs and one scenario with a generic 20 percent environmental cost adder. In the Plan, the Company chose to use the generic 20 percent environmental cost adder to represent all environmental externalities including greenhouse gas costs. The 20 percent is ramped in over a 30 year planning horizon. The Commission views this as a weak representation of carbon risk over the time horizon.

- In its next IRP the Company must review and explain its choice of the level of carbon risk adder.

Resource Integration

Resource integration is the development of multiple resource portfolios under multiple scenarios and the evaluation and selection of a preferred resource portfolio for the IRP two-year Action Plan. The principal objective of the integration process is to find the mix of demand- and supply-side resources that best balance the twin goals of minimizing costs and minimizing risk while maintaining reliability.

Cascade has developed the infrastructure to use the computer program Sendout® with VectorGas™ to evaluate and understand how various physical and financial risks affect potential resource choices. The Plan includes an impressive range of portfolios for identifying supply-side resources. It includes three portfolios with transport pipelines, one portfolio with a combination of transport pipelines, one portfolio with limited Canadian imports, one portfolio without a Rockies hub price advantage, and one portfolio with more storage as well as an "all resources" portfolio. These portfolios of resource scenarios provide enough resource choices to cover the foreseeable range of resource options that may materialize in the marketplace over the planning horizon.

The Plan is weaker than is otherwise optimal due to the lack of clarity in some portions of the Company's presentation. These short-comings are in part cured by amendments to correct errors and omissions.

- In its next IRP, Cascade must improve the presentation of information that supports its results and the written analysis of the modeling results in the Plan.

However, Cascade does a good job clearly stating the end goal of its analysis in its executive summary stating that, "…[c]capacity shortfalls will be met through the use of peaking and citygate gas supply deliveries which will utilize third-party upstream pipeline transport." To the extent the Company uses market sensitive data and assumptions in the Plan's modeling analysis that are not otherwise presented in the Plan,

- the Company must retain records of the data and assumptions and how they were used in the modeling as part of their completed IRP. This preserved record may be necessary for future prudence determinations.

Two-year Action Plan

On a system basis, Cascade's IRP demonstrates that its existing resources meet projected load through 2017. The Action Plan contains an extensive list of possible resources but fails to include the statement Cascade made in its executive summary quoted above in this attachment.

- In its next IRP, the Company should ensure consistency through the IRP from its analysis to its recommended outcomes.

The Plan states that the Company anticipates the possibility of exploiting its new Customer Information System to increase the accuracy of load forecasting.

- The Commission expects the next IRP load forecasting effort to maximize the benefits the new Customer Information System can provide to load forecasting.

Cascade states that it will update its avoided cost calculations and conservation potential as specific carbon legislation may be passed and signed into law, or specific rules adopted. Prudent utility planning requires a utility to respond to risk reflected in markets, including risk associated with potential measures to mitigate greenhouse gases. Greenhouse gas emission risks implicit in markets or anticipated by markets must be included in the calculus of a utility's long term planning even when specific carbon legislation has not been passed.

- Cascade should revisit its decision to use a 20 percent adder for all environmental costs (including greenhouse gas emission costs) in its next IRP.

While Cascade states that it does not need additional capacity resources until 2017, the Company appropriately includes in its Action Plan specific supply-side resources opportunities to monitor.