

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**LC 54**

In the Matter of  
Cascade Natural Gas  
2011 Integrated Resource Plan

STAFF'S FINAL COMMENTS

Based on Staff's review of Cascade Natural Gas Corporation (Cascade or Company) 2011 Natural Gas Integrated Resource Plan (IRP or Plan) and accompanying update and participation in the planning process, its determined that the Plan meets the Commission's guidelines in Order Nos. 07-002 and 07-047. Staff concludes that Cascade's IRP meets the Commission's substantive IRP requirements. Staff also concludes the demand-side and supply-side resources identified to fill the deficiencies expected in Cascade's Oregon service territory beginning in 2013 are appropriate. To ensure that the Company's next IRP Update and next IRP will contain sufficient analyses regarding the actions undertaken pursuant to the Company's Action Plan, Staff recommends the Commission acknowledge the 2011 IRP with its April 16, 2012 update and Action Plan, subject to the addition of the following action item requiring Cascade to perform and provide certain analyses in its next IRP update and in its next IRP:

“In its next IRP update and if appropriate, in its next IRP, Cascade will incorporate:

Qualitative and quantitative analysis of the anticipated distribution enhancements, including additional needs expected in Cascade's Distribution Integrity Management Program,

Ongoing analysis regarding re-aligning vintage capacity acquisitions with future pipeline capacity shortfalls,

Ongoing analysis of the level and impact associated with the addition of Ruby Pipeline supply diversity,

Details surrounding the backhaul agreement, upon availability,

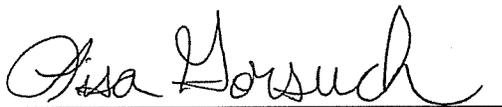
And

Daily deliverability estimates associated with acquisition of incremental storage.”

**Staff appreciates Cascade's willingness to work collaboratively with the parties to prepare and submit updates to its 2011 IRP with the goal of seeking the most reasonable resource plan for Cascade customers and Oregon as a whole.**

This concludes staff's final comments.

Dated at Salem, Oregon, the 3rd day of July, 2012.

A handwritten signature in cursive script that reads "Lisa Gorsuch". The signature is written in black ink and is positioned above a horizontal line.

**Lisa Gorsuch**  
Utility Analyst  
Electric & Natural Gas Division

ORDER NO.

ENTERED

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

LC 54

In the Matter of

CASCADE NATURAL GAS  
CORPORATION

2011 Integrated Resource Plan

PROPOSED ORDER

DISPOSITION: PLAN ACKNOWLEDGED WITH MODIFICATION

**INTRODUCTION**

On January 3, 2012, Cascade Natural Gas Corporation (Cascade or Company) filed its 2011 Natural Gas Integrated Resource Plan (IRP or Plan). Cascade was granted an extension from the Plan's original due date of August 10, 2011, which was requested due to uncertainty surrounding pipeline contract negotiations and pipeline rate case outcomes.

**Jurisdiction**

On April 20, 1989, pursuant to its authority under ORS 756.515, the Public Utility Commission of Oregon (Commission) issued Order No. 89-507 in Docket UM 180 adopting least-cost planning for all energy utilities in Oregon. On January 8, 2007, the Commission updated its resource planning guidelines in Order No. 07-002 (Docket UM 1056). This order was corrected in Order No. 07-047, entered February 9, 2007. Cascade is a public utility in Oregon, as defined by ORS 757.005, providing natural gas service to or for the public. Cascade filed its 2011 IRP in accordance with the Commission's integrated resource planning requirements adopted in Order Nos. 07-002 and 07-047.

**Requirements for Integrated Resource Planning**

The Commission requires regulated energy utilities to prepare integrated resource plans within two years of acknowledgment of the last plan. Utilities must involve the Commission and the public in their planning process and prior to resource decision-

making. Substantively, the Commission requires that energy utilities: (1) evaluate resources on a consistent and comparable basis; (2) consider risk and uncertainty; (3) make the primary goal of the process selecting a portfolio of resources with the best combination of expected costs and associated risks and uncertainties for the utility and its customers; and (4) create a plan that is consistent with the long-run public interest as expressed in Oregon and federal energy policies. *See* Order No. 07-002.

The Commission “acknowledges” resource plans that satisfy the procedural and substantive requirements and that seem reasonable at the time acknowledgment is given.

### **OVERVIEW OF CASCADE’S INTEGRATED RESOURCE PLAN**

Cascade’s 2011 IRP describes the components of the Company’s planning process. The plan includes forecasts of future customer demand and identification of resource needs over the 20-year planning period; assessments of demand-side and supply-side resource options and distribution system enhancements; consideration of planning risks and uncertainties; analysis and selection of resource options for meeting future needs; and identification of actions to be accomplished over 2011 and 2012 to carry out Cascade’s resource strategy and to complete additional planning activities. A summary of the plan is provided below:

- Demand Forecast. Cascade developed a 20-year forecast of customers, therm sales and peak demand. Cascade’s demand forecasts were produced using econometric models to develop the core residential, commercial and industrial forecasts at the town level. These forecasts are then aggregated to the zonal level for use in the SENDOUT<sup>®</sup> optimization model. In order to assess the impact of weather on the demand forecast, the company used the Monte Carlo simulation functionality contained in SENDOUT<sup>®</sup>. In addressing risk and uncertainty, the Company evaluated low, medium and high demand scenarios with low, medium and high supply cost and availability scenarios. Cascade then analyzed variations in inputs and subsequent demand sensitivities, pricing and resource timing and selection. Cascade chose the medium demand/medium price scenario as the most likely scenario for its planning activities. Cascade projects annual firm core market demand will grow at an annual average growth rate of 1.6%, fluctuating between 1.5% and 1.7% percent over the 20-year planning horizon, with lower recessionary growth in the short term. Peak day core market demand is projected to grow at an annual rate of 2.0% over the period.<sup>1</sup>
- Demand-Side Resources. Since 2006, Cascade has relied on the Energy Trust of Oregon for the delivery and administration of its conservation programs in Oregon. In 2011, the study of the Company’s technical and achievable conservation potential was updated. The study provided Cascade with an estimate of the energy savings measures for the residential, commercial and industrial markets and an estimate of the costs for those measures and their potential

---

<sup>1</sup> Cascade’s Replacement 2011 Integrated Resource Plan, Section 3, pages 17-22.

applicability in Cascade's service territory. A total of 79 energy efficiency measures were evaluated in the study. Based on the Company's assumptions for deployment of resources and their costs, the cumulative therm "best case scenario" savings target for Cascade's Oregon service territory over the 20-year planning horizon is 10,718,950 therms. As identified in its Two-Year Action Plan, the annual therm savings goals for the 2011 and 2012 period are 391,754 and 347,996 therms, respectively.<sup>2</sup>

- Supply-Side Resources.** Supply-side options available to gas utilities include flowing gas supplies through interstate pipelines, storage, and recallable supply arrangements. Cascade's flowing gas supplies originate in the Canadian provinces of British Columbia and Alberta and in the U.S. Rocky Mountain area. The Company's supplies include annual contracts, firm winter peaking contracts, and spot (mostly daily purchases) gas. Cascade contracts with Northwest Pipeline Corporation (NWP) and Gas Transmission Northwest (GTN) for interstate pipeline transportation into the Company's service areas in Washington and Oregon. The Company also contracts for underground storage and related transportation services at Jackson Prairie and has liquefied natural gas storage at NWP's Plymouth, Washington LNG facility for the benefit of its core customers. Cascade is negotiating contracts with Ruby Pipeline and GTN to mitigate projected shortfalls in the Bend, Oregon area by 2031. The IRP evaluated a variety of resource alternatives to meet additional capacity needs over the planning horizon including biogas to address specific shortfalls in Washington, satellite LNG facilities locatable in Cascade's service territory, LNG from several locations in Oregon and British Columbia, proposed pipelines and extensions for additional pipeline capacity, along with conventional existing gas supply contracts. In addition, distribution system enhancements were examined as a means to meet growth in system demand. Cascade also considered and modeled regulatory, price, and delivery risks associated with supply resources. Finally, Cascade considered and assessed various financial derivative alternatives to help ensure price stability for customers.
- Integration Strategies.** Cascade's decision making tools for its integration analysis are SENDOUT<sup>®</sup> and Vector Gas<sup>™</sup>. The former provides optimization (in terms of NPVRR) of supply-side resources under specified demand conditions (after cost effective DSM is removed), while the latter provides Monte Carlo analysis for risk assessment. Cascade's IRP projects the need to acquire additional capacity resources based on expected load growth. In addition to existing supply resources the model chose energy efficiency programs, satellite LNG, Ruby Pipeline with backhaul service on GTN, and incremental storage. The 20-year portfolio costs, on a Net Present Value basis, are expected to range between \$2,448,210,000 to \$3,216,376,000 for the planning period, with an average cost per therm ranging between \$.354 and \$.447.<sup>3</sup>

---

<sup>2</sup> Cascade's Replacement 2011 Integrated Resource Plan, Section 5, pages 28-51.

<sup>3</sup> Cascade's Replacement 2011 Integrated Resource Plan, Section 7, pages 82-88.

- Two-Year Action Plan. Cascade's 2011 Action Plan describes the following near-term actions the Company will take to implement its optimal resource strategy:

Replace neighborhood distribution pipeline and larger diameter pipeline to meet core growth in Bend, Oregon between 2012 and 2016.

Discuss Oregon Public Purpose Fund strategy to determine the most efficient manner to collect public purpose revenues that meet the approved budget needs of the Energy Trust of Oregon.

Re-align NWP delivery rights to optimize incremental vintage capacity acquisition program.

Secure Ruby Pipeline capacity to meet load growth and add supply diversity.

Secure incremental Gas Transmission Northwest Pipeline (GTN) firm backhaul capacity to meet load growth and add supply diversity.

Secure incremental storage to meet load growth and mitigate price volatility over the 20-year planning horizon.<sup>4</sup>

### Comments of the Parties

Cascade solicited initial comments from parties through its Technical Advisory Group (TAG) meetings prior to distributing its 2011 IRP for external review on January 3, 2012.<sup>5</sup> On April 2, 2012, a workshop was held to discuss areas of the Plan requiring further explanation. On April 16, 2012, Cascade filed updated sections to its Oregon 2011 IRP. Oregon Commission staff (Staff) provided comments on Cascade's Plan on April 30, 2012. Staff distributed its draft recommendation and draft proposed order on the Plan to the company and interested parties on July 3, 2012.

Staff Comments. Based on its review of Cascade's 2011 IRP and accompanying update and participation in the planning process, Staff determined that the Plan meets the Commission's guidelines in Order Nos. 07-002 and 07-047. Procedural requirements were met as described above. Substantive IRP requirements were addressed throughout the Plan, with supporting data in an appendix to the Plan. Staff agrees that Cascade's IRP meets the Commission's substantive IRP requirements. Staff also concluded the demand-side and supply-side resources identified to fill the deficiencies expected in Cascade's Oregon service territory beginning in 2013 are appropriate. To ensure that the Company's next IRP Update and next IRP will contain sufficient analyses regarding the actions

<sup>4</sup> Cascade's Replacement 2011 Integrated Resource Plan, Section 8, pages 106-109.

<sup>5</sup> Cascade's Replacement 2011 Integrated Resource Plan, Section 2, page 14 and App. A-2.

undertaken pursuant to the Company's Action Plan, Staff recommends the Commission acknowledge the 2011 IRP with its April 16, 2012 update and Action Plan, subject to the addition of the following action item requiring Cascade to perform and provide certain analyses in its next IRP update and in its next IRP:

"In its next IRP update and if appropriate, in its next IRP, Cascade will incorporate:

Qualitative and quantitative analysis of the anticipated distribution enhancements, including additional needs expected in Cascade's Distribution Integrity Management Program,

Ongoing analysis regarding re-aligning vintage capacity acquisitions with future pipeline capacity shortfalls,

Ongoing analysis of the level and impact associated with the addition of Ruby Pipeline supply diversity,

Details surrounding the GTN backhaul agreement, upon availability,

And

Daily deliverability estimates associated with acquisition of incremental storage."

## **OPINION**

After review of Cascade's IRP and consideration of Staff's comments, and understanding that no other party filed substantive comments on Cascade's Plan,<sup>6</sup> we agree with Staff's recommendations. Consequently, we acknowledge Cascade's 2011 IRP, with the proposed Action Plan item proposed by Staff regarding analyses Cascade should incorporate in its next IRP Update and in its next IRP.

## **EFFECT OF THE PLAN ON FUTURE RATE-MAKING ACTIONS**

---

<sup>6</sup> The Citizens' Utility Board of Oregon (CUB) filed a letter regarding Cascade's IRP on April 30, 2012. CUB noted that it had reviewed the Company's IRP and had participated in an April 12, 2012 workshop and attended an April 10, 2012 public meeting at which the Company presented its Plan to the Commission. CUB also noted that while it intended to continue participating in Docket No. LC 54, it had no specific comments to file at that time. (LC 54 CUB's Opening Comments.)

Order No. 89-507 sets forth the Commission's role in reviewing and acknowledging a utility's least-cost plan as follows:

Consistency of resource investments with least-cost planning principles will be an additional factor that the Commission will consider in judging prudence. When a plan is acknowledged by the Commission, it will become a working document for use by the utility, the Commission, and any other interested party in a rate case or other proceeding before the Commission[.] Consistency with the plan may be evidence in support of favorable rate-making treatment of the action, although it is not a guarantee of favorable treatment. Similarly, inconsistency with the plan will not necessarily lead to unfavorable rate-making treatment, although the utility will need to explain and justify why it took an action inconsistent with the plan.

Order No. 89-507 at 7.

The Commission affirmed this principle in Docket UM 1056. *See* Order No. 07-002 at 24.

This order does not constitute a determination on the rate-making treatment of any resource acquisitions or other expenditures undertaken pursuant to Cascade's 2011 IRP. As a legal matter, the Commission must reserve judgment on all rate-making issues. Notwithstanding these legal requirements, we consider the integrated resource planning process to complement the rate-making process. In rate-making proceedings in which the reasonableness of resource acquisitions is considered, the Commission will give considerable weight to utility actions which are consistent with acknowledged integrated resource plans. Utilities will also be expected to explain actions they take that may be inconsistent with Commission-acknowledged plans.

### **CONCLUSIONS**

1. Cascade is a public utility subject to the jurisdiction of the Commission.
2. Cascade's 2011 Integrated Resource Plan, along with its April 26, 2012, update, as modified in this order, reasonably adheres to the principles of integrated resource planning set forth in Order Nos. 07-002, 07-047, and 89-507, and should be acknowledged.

### **ORDER**

IT IS ORDERED that the 2011 Natural Gas Integrated Resource Plan filed by Cascade Natural Gas Corporation on January 3, 2012, along with its update, filed on April 16, 2012, as modified herein, is acknowledged in accordance with the terms of this order and Order No. 07-002, Order No. 07-047, and Order No. 89-507.

Made, entered, and effective \_\_\_\_\_.

---

**Susan K. Ackerman**  
Chair

---

**John Savage**  
Commissioner

---

**Stephen M. Bloom**  
Commissioner

Interest Type(s): **Parties**

PAULA E PYRON  
NORTHWEST INDUSTRIAL GAS USERS  
4113 WOLF BERRY CT  
LAKE OSWEGO OR 97035-1827

EEmail [ppyron@nwigu.org](mailto:ppyron@nwigu.org)

TOMMY A BROOKS  
CABLE HUSTON BENEDICT HAAGENSEN & LLOYD  
1001 SW FIFTH AVE, STE 2000  
PORTLAND OR 97204-1136

EEmail [tbrooks@cablehuston.com](mailto:tbrooks@cablehuston.com)

CHAD M STOKES  
CABLE HUSTON BENEDICT HAAGENSEN & LLOYD LLP  
1001 SW 5TH - STE 2000  
PORTLAND OR 97204-1136

EEmail [cstokes@cablehuston.com](mailto:cstokes@cablehuston.com)

OPUC DOCKETS  
CITIZENS' UTILITY BOARD OF OREGON  
610 SW BROADWAY, STE 400  
PORTLAND OR 97205

EEmail [dockets@oregoncub.org](mailto:dockets@oregoncub.org)

ROBERT JENKS  
CITIZENS' UTILITY BOARD OF OREGON  
610 SW BROADWAY, STE 400  
PORTLAND OR 97205

EEmail [bob@oregoncub.org](mailto:bob@oregoncub.org)

G. CATRIONA MCCRACKEN  
CITIZENS' UTILITY BOARD OF OREGON  
610 SW BROADWAY, STE 400  
PORTLAND OR 97205

EEmail [catriona@oregoncub.org](mailto:catriona@oregoncub.org)

MICHAEL T WEIRICH  
PUC STAFF--DEPARTMENT OF JUSTICE  
BUSINESS ACTIVITIES SECTION  
1162 COURT ST NE  
SALEM OR 97301-4096

EEmail [michael.weirich@doj.state.or.us](mailto:michael.weirich@doj.state.or.us)

List: **LC 54**

OFFICIAL SERVICE LIST

Printed: 7/3/2012

Interest Type(s): **Parties**

LISA GORSUCH  
PUBLIC UTILITY COMMISSION  
PO BOX 2148  
SALEM OR 97308-2148

EEmail [lisa.gorsuch@state.or.us](mailto:lisa.gorsuch@state.or.us)

MARK SELLERS-VAUGHN  
CASCADE NATURAL GAS  
8113 W GRANDRIDGE BLVD  
KENNEWICK WA 99336

EEmail [mark.sellers-vaughn@cngc.com](mailto:mark.sellers-vaughn@cngc.com)

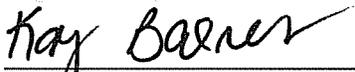
# Labels: 9

CERTIFICATE OF SERVICE

LC 54

I certify that I have, this day, served the foregoing document upon all parties of record in this proceeding by delivering a copy in person or by mailing a copy properly addressed with first class postage prepaid, or by electronic mail pursuant to OAR 860-001-0180, to the following parties or attorneys of parties.

Dated this 3rd day of July, 2012 at Salem, Oregon



---

Kay Barnes  
Public Utility Commission  
550 Capitol St NE Ste 215  
Salem, Oregon 97301-2551  
Telephone: (503) 378-5763