

ORDER NO. 03 - 523

ENTERED AUG 26 2003

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 34

In the Matter of the Investigation into)
Least-Cost Planning for Resource Acquisition by) ORDER
CASCADE NATURAL GAS CORPORATION.)

DISPOSITION: PLAN ACKNOWLEDGED WITH MODIFICATION

On December 16, 2002, Cascade Natural Gas Corporation (CNG or the company) filed its integrated resource plan (IRP) in accordance with Public Utility Commission of Oregon (Commission) Order No. 89-507. CNG held technical conferences prior to filing its plan. A summary of those activities is contained in Appendix A.

PROVISIONS OF THE PLAN AND COMMENTS

CNG's Least-Cost Plan

CNG's least-cost plan (LCP, IRP, or the plan) for Oregon is titled, *2002 Integrated Resource Plan*. The two-volume document was submitted to both Oregon and Washington Commissions. Included in the document is a summary of the company's resource decision making process, its conclusions, and a two-year action plan. Technical appendices and a glossary provide detailed supporting documentation.

CNG's 2002 IRP describes the basic components of the company's planning process. The planning process includes a forecast of its future market demand, assessments of demand-side and supply-side resource options, consideration of planning uncertainties, distribution system enhancements, analysis and selection of resource options for meeting future needs, and identification of actions required in the next two-year period to carry out the company's resource strategy.

Forecast. CNG's medium growth demand forecast is its best estimate of future core market firm energy resource requirements over the twenty-year planning horizon. The forecast has again been constructed using an internal econometric model for its residential, commercial, and industrial classes. The forecasts are prepared by operating district and aggregated into state and total system forecasts. The company disaggregates the operating district forecast into its

towns. The company projected low, medium, and high gas consumption scenarios, but believes the medium growth forecast scenario is most likely to occur. Under this scenario, CNG's customers are anticipated to have moderate growth over the twenty-year forecast period. Firm core market demand is expected to grow at an annual growth rate of 2.54 percent.

· *Demand-Side Resources.* CNG's IRP presents an evaluation of its demand-side management (DSM) resources and cost-effectiveness calculations. The company continues to include non-energy benefits associated within the total resource cost analysis of the state-mandated program. In 2002, CNG added a High Efficiency Equipment program providing an incentive for customers to install high-efficiency gas furnaces and water heaters for its Central Oregon customers. This program was extended to all Oregon customers in January 2003.

CNG continues its commitment to provide cost-effective energy audits and weatherization measures to both residential and commercial customers through the state-mandated weatherization program. The company will file updated avoided costs in compliance with OAR 860-030-0007 and updated cost-effectiveness limits in compliance with OAR 860-030-0010. OAR 860-030-0007 requires that a gas utility file updated avoided costs within 30 days of the Order acknowledging its least cost plan.

· *Supply-Side Resources.* Traditional supply-side options available to gas utilities include storage and flowing gas supplies through interstate pipelines. Flowing gas supplies for CNG originate in the Canadian provinces of British Columbia and Alberta, and in the U.S. Rocky Mountain areas. CNG's supplies include annual contracts, firm winter peaking contracts, and spot gas, as it is available. CNG contracts with Williams Gas Pipeline West for interstate pipeline transportation into the company's service areas in Washington and Northeastern Oregon. CNG has assigned some of its Williams pipeline capacity to the company's non-core industrial customer base until such time as core ratepayers may need it. CNG also contracts with PG&E Gas Transmission - NW (formerly PGT) for interstate pipeline transportation into the company's service areas in Central Oregon. CNG releases pipeline capacity on both Williams and PG&E GT - NW into the secondary market, when the capacity is not fully utilized. Under CNG's preferred scenario, additional pipeline capacity resources are not required until the 2006-2007 heating season.

· *Planning Uncertainties.* CNG's IRP considered planning uncertainty in developing both its demand requirements forecasts and its integrated resource portfolio strategies by developing a wide range of potential scenarios that reflect uncertainty in various key sectors. In this respect, uncertainty of demand, financial conditions, weather, and environmental costs are reflected in the company's load requirement forecasts and in its resource selection (optimization) process. As a consequence, the company feels the ranges reflected in its scenarios analyses are broad enough to ensure that its forecasts and resource selection strategies are sufficiently robust under a wide range of operating circumstances.

· *Environmental Externality Costs.* Consistent with OPUC Order No. 93-695, CNG's plan includes an analysis to consider the impact of environmental externality costs in planning for future energy resources. The company's analysis includes a range of potential cost impacts that range from \$0.066 to \$0.250 per therm based on the emission cost adders specified in the

OPUC order. This analysis considers the natural gas environmental cost impacts from emitting carbon dioxide and nitric oxides. Total suspended particulates (TSP) were not explicitly considered because the company, along with the Oregon Office of Energy, believes that TSP are either not present or are negligible with natural gas use. Nevertheless, CNG's plan analyzed the impacts of these cost adders in its integrated resource selection.

Integration Strategies. CNG's integrated resource portfolio, developed using the company's linear optimization model, indicates short-term winter period firm and peaking resources with 50 percent take requirements are more cost-effective than long-term supply contracts, beginning with the 2004-2005 heating season. CNG's analysis continues to show additional storage resources as a viable option, with on-system liquefied natural gas (LNG) alternatives preferred to those storage options that required additional pipeline transportation. Storage resources could be added as early as 2004.

Two demand side resources were evaluated by the company's model. The first DSM program evaluated by the model is the high-efficiency equipment rebate program that was adopted in Oregon last year. This program is identified by the model to reduce the company's portfolio costs by \$895,000 over the 20-year planning horizon. The company anticipates continuing the high efficiency equipment rebate program. The second DSM resource evaluated by the model, a low-income weatherization program, was identified as not cost-effective.

By the end of the 20-year planning period, CNG's model suggests an optimal portfolio mixture of 2,484,000 therms per day of incremental firm, 836,000 therms per day of incremental peaking, and 650,000 therms per day of incremental storage, primarily at Jackson Prairie.

Two-Year Action Plan. CNG's Two-Year Action Plan describes the actions the company proposes to take to maximize the efficiency from its integrated resource plan and to achieve the lowest cost resource portfolio of reliable natural gas services and conservation. The company will focus on five areas: demand forecasting, distribution system constraint analysis, demand side resources, supply side resources, and integration. Forecasting tasks include identifying supply requirements as well as using the demand forecast model to analyze potential loads and impacts to provide early warning and assessment of potential system constraints. Demand side tasks include continuing to evaluate existing programs and examining new conservation measure technologies. Staff's recommendations include an evaluation of the use of financial instruments as part of the company's ongoing risk management efforts.

Comments of the Parties

The company solicited initial comments from parties, including Staff of both the Oregon and Washington Commissions, within the Technical Advisory Group process prior to issuing the Draft IRP in September of 2002. Staff submitted comments on the Draft IRP on October 23, 2002. Those comments, along with the comments of other parties are included in the company's final 2002 IRP. The Commission received the final IRP on December 16, 2002. Staff solicited comments on the final IRP from the parties on January 10, 2003. No comments were received from other parties. Staff developed its final draft recommendations and a draft proposed order that was distributed to all interested parties

on May 16, 2003. CNG filed reply comments to staff's draft recommendations in a letter dated July 3, 2003.

Commission Staff Comments. The company addressed Staff's substantive issues prior to filing its final integrated resource plan submitted in December 2002. Staff makes one additional suggestion for modification to the company's IRP.

Minimizing Core Customer Risk Of Gas Price Fluctuations. The company must provide a study that incorporates the potential use of financial derivatives and the potential expanded use of natural gas storage in a specific plan of how the company intends to protect its Oregon core customers from natural gas supply price volatility in the next five years. This study and plan are to be submitted to Staff no later than November 30, 2003.

Cascade Natural Gas Comments. In its letter dated July 3, 2003, the company accepted the recommendation of the Commission staff, as set forth above. CNG's letter is attached as Appendix B. In addition, CNG's letter describes how its IRP complies with the requirements of Order No. 89-507.

OPINION

Jurisdiction

CNG is a public utility in Oregon, as defined by ORS 757.005, which provides natural gas service to or for the public.

On April 20, 1989, pursuant to its authority under ORS 756.515, the Commission issued Order No. 89-507 in Docket UM 180 adopting least-cost planning for all energy utilities in Oregon.

Requirements for Least-Cost Planning under Order No. 89-507

Order No. 89-507 establishes procedural and substantive requirements for least-cost planning and requires the Commission's acknowledgment of plans that meet the requirements of the order.

Procedural requirements. At a minimum, the least-cost planning process must involve the Commission and public prior to making resource decisions rather than after the fact. See Order No. 89-507 at 3.

CNG sought public input during the planning process by informing the general public about its planning process and by conducting technical conferences on the plan. The company's technical advisory group (TAG), consisting of representatives from Avista Utilities, Oregon and Washington Commission Staff, wholesale natural gas suppliers, industrial customers, consumer advocacy groups, and a customer of the company. The TAG group provided input on planning assumptions, energy resource options, and future scenarios that influence both the demand for and supply of energy. The company distributed a draft plan for comment before developing and

submitting the final plan to the Commission. In addition, the company distributed 38 summaries of the plan to customers who requested them. CNG received three reply comments from its Washington customers and none from its Oregon customers.

Substantive requirements. The substantive requirements were also set forth in the Commission order as follows:

1. All resources must be evaluated on a consistent and comparable basis.
2. Uncertainty must be considered.
3. The primary goal must be least cost to the utility and its ratepayers consistent with the long-run public interest.
4. The plan must be consistent with the energy policy of the state of Oregon as expressed in ORS 469.010.

Order No. 89-507 at 7.

Evaluation of Resources. Numerous linear programming model runs were completed to evaluate 14 different resource scenarios for the company's plan. CNG evaluated available resources on a consistent and comparable basis through the use of its optimization model. Demand side and supply side resources have the same input and operating constraint criteria for the optimization model to evaluate the present value cost and energy utilization over the planning horizon. Additionally, environmental externalities were evaluated by adding the cost per therm equivalent of the externality cost values to supply side resources as described in OPUC Order No. 93-695. We conclude that CNG complied adequately with this requirement for purposes of this plan.

Uncertainty. The Company considered uncertainty within its IRP by utilizing various demand forecast scenarios, design and average weather conditions, different financial conditions, various gas and electric prices, environmental externality costs, and the reliability of resource deliverability. These uncertainty considerations are conducted through a series of scenario analyses that evaluate the impact of various range estimates of each uncertainty condition.

Primary Goal of Plan Must Be Least Cost. The objective of least-cost planning is to plan for resources that both meet the needs of the utility's customers and minimize total system costs over the long-term. CNG has set forth its integrated resource plan to "provide reliable services to core market firm natural gas customers while minimizing costs," and to "provide the highest value to all CNG stakeholders." CNG's IRP also renews its commitment to "consider supply side and demand side resources on a consistent and comparable basis to achieve the best integrated portfolio." The linear programming optimization model used by the company will aid CNG in minimizing total system cost to serve its customers' energy needs over the long run. We are satisfied that CNG has met this requirement for purposes of this integrated resource plan.

Consistency with Oregon's Energy Policy. The Legislature mandated certain energy-related goals in ORS 469.010. These goals relate primarily to the development of sustainable energy resources. CNG's plan is consistent with these goals. CNG has included conservation resources in its resource acquisition plan. In addition, the company has indicated it will continue to assess the potential for additional residential and commercial/industrial DSM programs.

Commission Decisions on Parties' Comments

CNG has incorporated comments of the parties into the final plan. The company agreed in its letter of July 3, 2003 to Staff's recommendation for a hedging study. There were no additional comments from Oregon parties or customers.

Based on review of CNG's planning efforts and the company's July 3, 2003, agreement to the recommended modification included in this order, CNG's 2002 Integrated Resource Plan is acknowledged. CNG's IRP meets the minimum substantive and procedural requirements of Order No. 89-507. Achievement of the objectives in the company's Action Plan and the Commission recommendation will enhance the company's efforts in the development of future integrated resource plans and assist the company in minimizing its total system costs over the twenty-year planning horizon.

EFFECT OF THE PLAN ON FUTURE RATE-MAKING ACTIONS

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

The establishment of least-cost planning in Oregon is not intended to alter the basic roles of the Commission and the utility in the regulatory process. The Commission does not intend to usurp the role of utility decision-maker. Utility management will retain full responsibility for making decisions and for accepting the consequences of the decisions. Thus, the utilities will retain their autonomy while having the benefit of the information and opinion contributed by the public and the Commission.

Plans submitted by utilities will be reviewed by the Commission for adherence to the principles enunciated in this order and any supplemental orders. If further work on a plan is needed, the Commission will return it to the utility with comments. This process should eventually lead to acknowledgment of the plan.

Acknowledgment of a plan means only that the plan seems reasonable to the Commission at the time the acknowledgment is given. As is noted elsewhere in this order, favorable rate-making treatment is not guaranteed by acknowledgment of a plan.

Order No. 89-507 at 6 and 11.

This order does not constitute a determination on the rate-making treatment of any resource acquisitions or other expenditures undertaken pursuant to CNG's 2002 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 pursue unanticipated least-cost opportunities beneficial to ratepayers which arise after Commission acknowledgment or, alternatively, explain why such opportunities were not pursued.

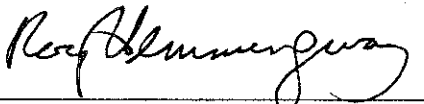
CONCLUSIONS

1. CNG is a public utility subject to the jurisdiction of the Commission.
2. CNG's 2002 Integrated Resource Plan, with the modifications adopted herein, reasonably adheres to the principles for least-cost planning set forth in Order No. 89-507. The plan will assist in insuring that CNG's customers receive adequate service at fair and reasonable rates and is otherwise in the public interest.

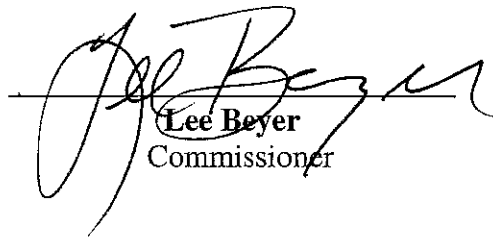
ORDER

IT IS ORDERED that the 2002 Integrated Resource Plan filed by Cascade Natural Gas Corporation, filed December 16, 2002, as modified herein, is acknowledged in accordance with the terms of this order and Order No. 89-507.

Made, entered, and effective AUG 26 2003



Roy Hemmingway
Chairman



Lee Beyer
Commissioner



A party may request rehearing or reconsideration of this order pursuant to ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-014-0095. A copy of any such request must also be served on each party to the proceeding as provided by OAR 860-013-0070(2). A party may appeal this order to a court pursuant to applicable law

ATTACHMENT A

CASCADE NATURAL GAS CORPORATION
Technical Advisory Group Meeting Participants

The following company and non-company individuals participated in one or more Technical Advisory Group (TAG) meetings. The TAG meetings were held in June 2002 and August 2002.

Company Participants

P. Schwartz	Sr. Director, Energy Marketing
P. Grable	Sr. Director, Gas Supply
C. Marek	Director, Safety and Support Engineering
K. Barnard	Director, Regulatory Affairs
T. Le	Gas Supply Analyst

Non-Company Participants

J. Klingele	Customer
R. Harris	Oregon Public Utility Commission Staff
H. McIntosh	Washington Utilities & Transportation Commission Staff
Y. Mariam	Washington Utilities & Transportation Commission Staff
J. Steward	Washington Utilities & Transportation Commission Staff
N. Garcia	Washington Utilities & Transportation Commission Staff
J. Huang	Washington Utilities & Transportation Commission Staff
L. Steele	Washington Utilities & Transportation Commission Staff
C. Ebert	The Energy Project
S. Brannon	WA Reach
P. Pyron	NW Industrial Gas Users
R. Winters	Avista Utilities
M. Davis	BC Gas
D. Richardson	Duke Energy

ATTACHMENT A

Cascade Natural Gas Corporation
Technical Advisory Group
Demand Forecasting, Distribution System Planning, Demand Side
Resources
Thursday, June 20, 2002

- Introduction of Participants
- Demand Forecast Overview
 - History/Service Territory
 - Model Overview
 - Data and Sources
 - Review of Results
 - Conclusions
- Distribution System Planning
 - Overview of Planning
 - Demonstration of Flow Model
- Overview of Cascade's DSM Process
 - Objectives
 - Risks/Uncertainties
 - Current DSM Programs
 - Prospective programs
- Closing Discussion
 - Future Meetings
 - Other Comments

ATTACHMENT A

Cascade Natural Gas Corporation
Technical Advisory Group Topic Agenda
Supply Side Resources & Integration
Tuesday, August 27, 2002

- Overview of Planning Process
- Supply Side Resources Topics
 - Supply Alternatives
 - Transportation Alternatives
 - Issues/Uncertainties Affecting Supply Portfolio
- Integration Topics
 - Overview of Sendout Model
 - Description of Model Inputs
 - Preliminary Basecase Results
 - Preliminary DSM Results



222 FAIRVIEW AVENUE NORTH SEATTLE, WASHINGTON 98109-5542 206-624-3900
FACSIMILE 206-624-7215

July 3, 2003

Oregon Public Utility Commission
550 Capitol Street NE
Salem, OR 97310-1380

Attention: Ms. Vikie Bailey-Goggins
Administrator, Tariffs and Rate Analysis

Cascade Natural Gas Corporation filed its 2002 Integrated Resource Plan under OPUC Order 89-507 on December 15, 2002. The Company believes the filing meets the procedural and substantive requirements of the Order. The four main IRP requirements include evaluating resources on a consistent and comparable basis, consideration of uncertainty, provide natural gas service at the least cost with an acceptable level of reliability, and consistency with the energy policy expressed in ORS 469.010.

Cascade evaluated available resources on a consistent and comparable basis through the use of its linear programming optimization model. Demand side and supply side resources have the same input and operating constraint criteria for the optimization model to evaluate the present value cost and energy utilization over the planning horizon. Additionally, environmental externalities were evaluated by adding the cost per therm equivalent of the externality cost values to supply side resources as described in OPUC Order No. 93-965.

The Company considered uncertainty within its IRP by utilizing various demand forecast scenarios, design and average weather conditions, different financial conditions, various gas and electric prices, environmental externality costs, and the reliability of resource deliverability. These uncertainty considerations are conducted through a series of scenario analyses that evaluate the impact of various range estimates of each uncertainty condition.

Cascade selected a resource portfolio that is projected to provide natural gas service to Cascade customers at the least cost with an appropriate level of reliability and in the long term interest of the Company's customers. Demand requirements were established through the demand forecast model. Existing and incremental demand side and supply side resources were identified and the optimization model was used to compute the present value of each resource portfolio's cost.

Ms. Vikie Bailey-Goggins
July 3, 2003
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The IRP is generally consistent with the energy policy in ORS 469.010, which establishes goals to develop sustainable energy resources. The Company believes that the supply and demand-side resources in the plan provide economic and environmental benefits to the citizens of Oregon. The Company will continue to evaluate the potential for residential, commercial, and firm industrial DSM programs.

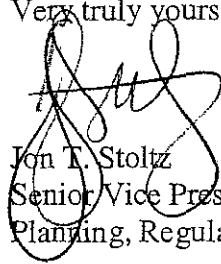
Cascade's 2002 IRP Two Year Action Plan is designed to accomplish several goals that will lead toward Cascade refining its IRP capabilities. The action plan is designed to provide the necessary information and analyses to further develop IRP mechanisms that will allow Cascade to reliably serve natural gas to its customers at the least cost while providing an acceptable rate of return to shareholders. These IRP mechanisms need to continually incorporate flexibility to function in a dynamic and uncertain energy marketplace.

Cascade agrees to undertake the additional OPUC Staff recommendation to its two-year action plan. Specifically, Cascade agrees to do the following:

1. No later than November 30, 2003, the Company will provide a report to Staff on how it intends to incorporate the potential use of financial derivatives and the potential expanded use of natural gas storage to protect its Oregon core customers from natural gas supply price volatility in the next five years.

Cascade would like to thank those who actively participated in its 2002 IRP process. The meetings with and comments from the OPUC staff have greatly contributed to Cascade's IRP development to date.

Very truly yours,


Jon T. Stoltz
Senior Vice President
Planning, Regulatory & Consumer Affairs

JTS:kjb