

ORDER NO. **01-826**

ENTERED **SEP 28 2001**

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 25

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

DISPOSITION: PLAN ACKNOWLEDGED WITH MODIFICATIONS

On December 17, 1999, 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.) Staff circulated a draft proposed order recommending that the Commission acknowledge CNG's plan with certain modifications, described below, on July 31, 2001. CNG submitted a letter dated August 8, 2001, accepting the draft proposed order as presented. Staff's final proposed order was distributed on August 16, 2001. At a public meeting on August 21, 2001, the Commission considered and adopted staff's recommended order.

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, *1999 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 1999 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 been constructed using a newly-developed econometric model for its residential load and an existing econometric model for its commercial/industrial class. 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, Cascade'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 2.34%. Cascade's Two-Year Action Plan includes a continuation of its 1996 Action Plan item to examine the load and requirements impacts of residential and small-use commercial customer choice programs.

Demand-Side Resources. CNG's IRP presents an evaluation of its previous demand-side management (DSM) Two-Year Action Plan accomplishments. Since acknowledgement of the last plan, the company has improved its total resource cost analysis of the state-mandated program to include non-energy benefits associated with the program. During the next planning cycle, the company will continue to evaluate measures and programs, such as horizontal axis washers, to add to its portfolio as they become cost-effective. In addition, Cascade renews its commitment to provide cost-effective energy audits and weatherization measures to both residential and commercial customers through the state-mandated weatherization program, and will examine the cost-effectiveness of including replacement windows and doors in the program. Finally, 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. Although the company's IRP assumes that no new DSM programs are cost-effective, updating the avoided costs may indicate that some DSM is appropriate to acquire. If this is true, Cascade would need to evaluate what measures or programs, if any, it should implement.

Supply-Side Resources. Traditional supply-side options available to gas utilities include storage and flowing gas supplies through interstate pipelines. Flowing gas supplies originate in British Columbia, Alberta, and the US Rocky Mountain areas, and include annual, firm winter peaking and spot gas as available. CNG contracts with Williams Gas Pipeline West for interstate pipeline transportation into the CNG service areas in Washington and Northeastern Oregon. CNG assigns some of NPC capacity to its non-core industrial customer base until it becomes needed by core ratepayers. CNG also contracts with PG&E Gas Transmission - NW for interstate pipeline transportation into CNG service areas in Central Oregon. CNG releases both NPC and PGT pipeline capacity on the secondary market, when the capacity is not fully utilized. Under Cascade's preferred scenario, additional pipeline capacity resources are not required until 2004/2005.

Planning Uncertainties. Cascade'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.

· *Impact on Small Businesses.* The company's IRP discusses how its DSM measures and programs will be provided through the private sector. The IRP states, "DSM services are provided through private contractors and businesses" and that Cascade's "participation through dealer incentives and advertising will allow business partners to become more successful." The company currently utilizes and promotes several small business services including DSM contractors, gas appliance dealers, plumbers, and contractor crews. This addresses the concern expressed in Section 303 of the Energy Policy Act of 1992 of the potential impact that utility integrated resource planning and DSM activities could have on small businesses.

· *Environmental Externality Costs.* Consistent with OPUC Order No. 93-695, Cascade'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 is negligible in natural gas. Nevertheless, Cascade's plan analyzed the impacts of these cost adders on its integrated resource selection.

· *Integration Strategies.* CNG's integrated resource portfolio, developed using the company's linear optimization model, indicates one to five year short-term supply contracts are more cost effective than long-term supply contracts. Cascade's analysis also shows storage resources and winter peaking resources are more cost effective than long-term pipeline capacity contracts. The model chooses short-term resources over long-term resources in every year of the twenty-year planning period. In Cascade's judgment, it is far more advantageous for the company to acquire short-term winter firm and peaking resources for the core market. In addition, storage resources could be added as early as 2002. One demand side resource, a horizontal axis washing machine program, was determined non-cost effective even with an externality cost adder in place. Analysis of a new residential weatherization program showed similar results. As a result, Cascade does not anticipate adding these demand side resources at this time.

Regardless of what Cascade's final resource selections may be, Cascade will probably need to acquire additional resources to meet core requirements. By the end of the twenty-year planning period, Cascade's model suggests an optimal portfolio mixture of 1,775,000 therms per day of incremental firm, 820,800 therms per day of incremental peaking and 1,388,000 therms per day of incremental storage.

Two-Year Action Plan. CNG's Two-Year Action Plan describes the actions the company proposed 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. CNG will focus on three areas: demand forecasting, demand side resource assessment and acquisition, and evaluation of the use of financial instruments as part of its ongoing risk management efforts. Forecasting tasks include using the demand forecast model to analyze the potential load and impacts of residential and small use commercial customer choice programs. Demand side tasks include examining new conservation measure technologies and continuing to improve the cost-effectiveness of the state-mandated weatherization programs. In monitoring the futures market, the company reviews price trends and evaluates the use of financial hedging instruments. Due to the length of time between the time the company filed its plan and the time of the Staff's recommendation regarding the plan, the company has agreed to brief staff on its action plan by October 19, 2001.

Comments of the Parties

The Commission developed extensive comments on Cascade's "first draft" IRP (released to the WUTC and OPUC only) in June 1999 and its draft integrated resource plan submitted in September 1999, and developed draft recommendations on the company's final IRP, which were distributed to the company on June 26, 2001. Staff developed its final draft recommendations and a draft proposed order that was distributed to all interested parties on July 31, 2001. Cascade filed reply comments to Staff's draft recommendations in a letter dated August 8, 2001. No other party submitted comments.

Commission Staff Comments. The company addressed Staff's substantive issues prior to filing its final integrated resource plan submitted in December 1999. Staff makes two additional suggestions for modification to the company's IRP. On July 31, 2001, staff distributed its recommendation that the Commission acknowledge CNG's IRP if the company makes the modifications discussed below:

1. *Two-Year Action Plan Activities Update and Report to Commission.* Due to the considerable time that has elapsed between the company's filing and Staff's final review and recommendation, the company must complete a report on what activities the company has pursued in accomplishing the items listed in its Two-Year Action Plan, and how those items might be pursued over the next 12 months. This report should be submitted by October 19, 2001. Cascade submitted a draft IRP in September 1999, followed by its final IRP in December 1999. Unfortunately, for a great many reasons (e.g., staff turnover, involvement in SB 1149 rate cases), preparation of recommendations regarding the plan has been postponed for well over a year. Staff's initial review in early 2000 did not reveal any problems or issues with the plan that would have prevented a recommendation for acknowledgement. Staff's recent review has not resulted in any findings of error or misjudgment on the part of the company in preparing and filing its 1999 IRP. However, since the company's filing, gas prices have fluctuated widely and continue to do so. Cascade's 2000 PGA filing resulted in a 27% rate increase to residential customers that was effective October 1, 2000. The company expects another increase to its customers to be effective

October 1, 2001. In light of these gas cost increases, Cascade has likely made changes to its business and operating plan discussed in the IRP, and may have embarked on other activities not foreseen when completing the IRP for submission in late 1999. Staff believes that it would be useful for the company to report on what activities the company has pursued over the last eighteen months, some of which may not have been planned and discussed in the Two-Year Action Plan. Because this IRP, if acknowledged as we recommend, is somewhat dated, it might also be helpful to allow the company an additional twelve months in which to submit its next draft IRP. We recommend that Cascade report to Staff and the Commission on its accomplishments by October 19, 2001, and that the next draft IRP be due no earlier than September 2002.

2. *Minimizing Core Customer Risk Of Gas Price Fluctuations.* The company must brief Staff by October 19, 2001, on how it is structuring its gas supply acquisition strategy and decision making process in order to minimize core customer risk of both expected and unexpected gas price fluctuations. Until recently, the gas supply portfolio management strategies of Oregon's natural gas utilities have consistently provided consumer benefits in the form of lower gas prices. CNG's flexible strategy has allowed the company to change its supply portfolio composition to accommodate and take advantage of changing market conditions. However, staff is concerned that supply markets may be increasingly characterized by significant seasonal price swings and that such swings may negatively impact Oregon ratepayers. Staff is also concerned that optimal portfolio management strategies developed for flat or declining price markets may not be best for gas markets characterized by general price increases and greater seasonal swings. As a consequence, Staff recommends that Cascade brief staff by October 19, 2001, on how it is structuring its gas supply acquisition strategy and decision making process in order to minimize core customer risk of both expected and unexpected gas price fluctuations.

Cascade Natural Gas. In its letter dated August 8, 2001, CNG accepted the recommendations of the Commission staff, as set forth above. (CNG's letter is attached as Appendix B.) The company believes its "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." In addition, Cascade'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, consisting of representatives from other utilities, regulatory agencies, and the public, 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 over 150 summaries of the plan to customers who requested them. Cascade 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.

See Order No. 89-507 at 7.

Evaluation of Resources. Numerous linear programming model runs were completed to evaluate seventeen different resource scenarios for the company's plan. Cascade 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. 93-965. 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 meet both 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." Cascade's IRP "[continues] to meet the energy needs of its bundled service core market customer with a package of services that combine adequate gas supplies and cost-effective winter peaking services with long-term pipeline transportation contracts and sufficient distribution system capacity at the lowest possible cost." Cascade's IRP also renews "its commitment to further explore and develop [DSM] measures estimated to be cost-effective. . . ." 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

Staff's final recommendation document contained two specific recommendations related to CNG's future planning process. CNG has agreed to the recommendations in Staff's memo. The Commission believes that the recommendations and compliance dates proposed by staff, and agreed to by the company are reasonable. We adopt the recommendations.

Conclusion

Based on review of CNG's planning efforts and the company's August 8, 2001, agreement to the recommended modifications included in this order, CNG's 1999 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 recommendations 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.

See 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 1999 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 1999 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 ensuring 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 1999 Integrated Resource Plan filed by Cascade Natural Gas Corporation, dated December 17, 1999, as modified herein, is acknowledged in accordance with the terms of this order and Order No. 89-507.

SEP 28 2001

Made, entered, and effective _____

Roy Hemmingway

Roy Hemmingway
Chairman

Joan H. Smith

Joan H. Smith
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.

Cascade Natural Gas Corporation
Technical Advisory Group – Demand Forecast
Tuesday, June 23, 1998

- Introduction of Participants
- Demand Forecast History
 - Service Territory
 - Commercial/Industrial Model Structure Overview
- Residential Core Demand Forecast
 - Review of Model
 - Data and Sources
- Demand Forecast Overview
 - Review of Results
 - Conclusions
- Closing Discussion
 - Future Meetings
 - Other Comments

Cascade Natural Gas Corporation
Technical Advisory Group
Distribution System Planning & DSM Resources
Tuesday, July 14, 1998

- Introduction of Participants
- Overview of Distribution System Planning
 - Demonstration of Flow Model
- Overview of Cascade's DSM Process
 - Objectives
 - Risks/Uncertainties
- DSM Program Activities
 - Oregon Mandated Program
 - School Energy Efficiency Program with Idaho Power
 - Consumer Education
- Future DSM plan possibilities
 - OCHP builder education program
 - Energy Efficient Manufactured Home Program
 - Horizontal Axis Washing Machines
 - New Conservation Technologies
- Closing Discussion
 - Future Meetings
 - Other Comments

Cascade Natural Gas Corporation
Technical Advisory Group Topic Agenda
Supply Side Resources & Integration
Friday, September 11, 1998

- 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

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 from June 1998 through September 1998.

Company Participants

K. Oberg	Vice President, Gas Supply
P. Schwartz	Director, Planning & Rates
C. McGrath	Director, Gas Management
M. Whitten	Director, Gas Supply
D. Meredith	Director, Special Projects
K. Barnard	Planning & Demand Side Resource Specialist

Non-Company Participants

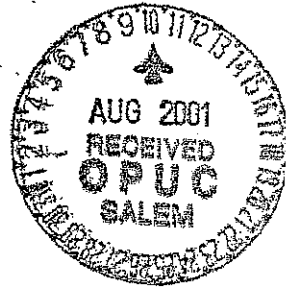
J. Klingele	Customer
A. Jasso	Oregon Public Utility Commission Staff
G. Lundeen	Oregon Public Utility Commission Staff
B. Tatom	Oregon Public Utility Commission Staff
R. Nunez	Oregon Public Utility Commission Staff
J. Cherry	Washington Utilities & Transportation Commission Staff
H. McIntosh	Washington Utilities & Transportation Commission Staff
M. Lott	Washington Utilities & Transportation Commission Staff
T. MacLean	Washington Utilities & Transportation Commission Staff
R. Winters	Avista Utilities
M. Thompson	Forefront Economics
M. Hutton	NW Industrial Gas Users



ORDER NO. 01-826

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FACSIMILE (206) 624-7215

August 8, 2001



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

Attention: Ms. Janice Fulker
Administrator, Tariffs and Rate Analysis

Cascade Natural Gas Corporation filed its 1999 Integrated Resource Plan under OPUC Order 89-507 on December 14, 1999. 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. Janice Fulker
August 8, 2001
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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.

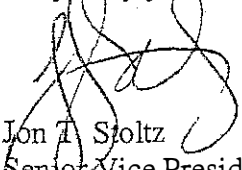
Cascade's 1999 IRP Two Year Action Plan is designed to accomplish several goals that will lead toward Cascade refining its IRP capabilities. The action plan is designed to provide the necessary information and analyses to further develop IRP mechanisms that will allow Cascade to reliably serve natural 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 three OPUC Staff recommendations to its two-year action plan. Specifically, Cascade agrees to do the following:

1. The Company will report to Staff by October 19, 2001 on its progress in accomplishing the items listed in its Two-Year Action Plan.
2. The Company will brief staff by October 19, 2001, on how it is structuring its gas supply acquisition strategy and decision making process in order to minimize core customer risk of both expected and unexpected gas price fluctuations.

Cascade would like to thank those who actively participated in its 1999 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:dlp