BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

WUTC V. CASCADE NATURAL GAS CORPORATION

DOCKET NO. UG-060256

DIRECT TESTIMONY OF JIM LAZAR (JL-1T)

ON BEHALF OF

PUBLIC COUNSEL

DATED AUGUST 15, 2006

DIRECT TESTIMONY OF JIM LAZAR (JL-1T)

TABLE OF CONTENTS

TABLES AND GRAPHS

EXHIBIT LIST

Exhibit No. __ (JL-2) Cost of Service Issues

Exhibit No. __ (JL-3) Rate spread Results

Exhibit No. __ (JL-4) Residential Rate Design

I. QUALIFICATIONS

Q. Please state your name, address, and occupation.

A. Jim Lazar, 1063 Capitol Way S. #202, Olympia, WA. I am a consulting economist specializing in utility rate and resource analysis.

Q. Please briefly summarize your qualifications?

A. I have been engaged in utility consulting continuously since 1982, and worked in the field sporadically prior to that time. I have appeared before this commission on many occasions beginning in 1978, including several rate-related proceedings involving Cascade Natural Gas Company (Cascade). My other clients have included this Commission, the state Commissions of Idaho and Arizona, and numerous federal, state, and local governmental agencies. I was a witness in the 1986 Cascade proceeding, U-86-100, in which the Commission provided specific guidance on the measurement of Cascade's cost of providing service. Several elements of my testimony on gas cost allocation and rate design were adopted by the Commission in that docket. I was also a witness on cost allocation in subsequent proceedings involving Washington Natural Gas (now PSE) and Washington Water Power (now Avista) in which the Commission provided additional guidance on the measurement of the cost of providing gas service.

Q. What has your role been as a consultant to the Commission?

A. I have assisted the Commission on several occasions with negotiations and analysis involving the Bonneville Power Administration and the residential and farm exchange program that the Washington-regulated electric utilities participate

in. I was also retained by the Commission in 1996 to prepare a training program in utility cost allocation and rate design that was presented as a part of this Commission's tutorial for the newly-created regulatory commission of Kyrgyzstan. More recently, in 2003, the Commission retained me to assist in negotiations with Pacific Power and Light Company on the subject of interstate cost allocation, a subject that remains unresolved.

Q. On whose behalf are you appearing in this proceeding?

A. My testimony is sponsored by the Public Counsel Section, Office of the Attorney General.

II. INTRODUCTION AND SUMMARY

Q. What is the purpose of your testimony?

A. I have been asked by Public Counsel to review the Cascade cost of service study prepared by Mr. Lamar Dickey, to prepare an evaluation of that study, to review the rate design proposed for the residential class by Mr. Jon Stolz, and to prepare an alternative. I was also asked to review the proposed changes in miscellaneous service charges.

Q. How is your testimony organized?

A. My testimony consists of the following elements:

- First, I discuss the history of natural gas cost of service analysis in Washington as these methods have evolved over the past 20 years.

- Second, I identify the elements of Mr. Dickey's study which are directly in conflict with specific decisions made by the Commission during the last 20 years.
- Third, I discuss why, due the Company's recordkeeping and load research, I cannot propose an alternative cost of service study. I do present some sensitivity analysis on a draft study prepared by Mr. Don Schoenbeck.
- Fourth, I present an alternative spread of rates that more equitably distributes any rate increase that may result from this proceeding. I have computed this at both the Company revenue requirement and on an educated estimate of the Staff revenue requirement (knowing that it is subject to change).
- Fifth, I discuss why Mr. Stolz's proposed residential rate design is inappropriate and should be rejected.
- Sixth, I present two alternative residential rate designs, again, computed at both the Company requested revenue level and at an estimate of the Staff revenue requirement. I demonstrate that these alternatives will be more fair to low-use residential customers, promote energy conservation, and help to mitigate natural gas demand in the region to the benefit of all classes of customers and all of the natural gas providers in the Pacific Northwest.

- Finally, I discuss the Company's proposed extremely large increases to fees that primarily affect renters and low-income customers, and recommend that they not be adopted.

Q. What is your basic recommendation in this proceeding?

A. I recommend that the Commission reject Mr. Dickey's cost of service study and reaffirm its previous well-reasoned determinations. I recommend that the Commission reject Mr. Stolz's proposed rate spread between classes. Instead, the commission should apply traditional regulatory principles of equity, fairness, gradualism, and cost of service in determining the appropriate rate spread and adopt a uniform percentage of margin basis between classes. Finally, I recommend that the Commission reject Mr. Stolz's proposed $10 per month winter-season Basic Charge and either retain the current rate form or adopt a more progressive inverted rate form.

Q. What exhibits are you sponsoring in this proceeding?

A. My exhibits include the following:

Cost of Service Issues, Exhibit No.___(JL-2)

Rate Spread Results, Exhibit No.___(JL-3)

Residential Rate Design, Exhibit No.___(JL-4)

III. COST OF SERVICE HISTORY

Q. What is the purpose of a cost of service study?

A. A cost of service study apportions the cost of providing gas service between all classes of customers. Some costs are relatively easy to assign to specific classes,

but much of the distribution system and all of the administrative services of the utility are shared jointly by all customers. There are many methods to allocate these costs. Mr. Dickey describes a few of these methods in his testimony. See Exhibit No.___ (LMD-1T), page 9, line 15 through page 11, line 3. There are many additional cost of service methods, including marginal and incremental cost of service methods. Different methods can produce very different results. This Commission has accepted methods that apportion costs primarily on the basis of usage, rather than a per-customer or a peak demand approach.

Q. Please describe the evolution of gas cost of service analysis in Washington briefly.

A. Prior to 1986, natural gas utilities in Washington did not file cost of service studies. At that time, they were monopoly providers, with all residential, commercial, and industrial customers purchasing a "bundled" service of gas supply, transportation, and customer service. Natural gas had only come to the Northwest in 1957, with the extension of Northwest Pipeline, and in its infancy, the industry focused on pricing that would attract customers, primarily away from heating oil, but also from electricity. For example, I recall in a Washington Natural Gas rate case in the early 1980's the CEO being asked by an industrial representative if he thought that gas prices should reflect the cost of service. The CEO replied that the company tries to set all of its prices to be competitive for all classes, and to recover its revenue requirement.

As the industry matured, and as the Commission began using electric cost of service studies to apportion electric utility revenue requirements, the

Commission began to consider gas cost of service studies as well. Eventually, the Commission issued three seminal decisions on gas cost allocation. The first of these was in 1987 for Cascade, the second in 1992 for Washington Water Power, and the last in 1994 for Washington Natural Gas.

Q. Please describe the first of these, involving Cascade.

A. Cascade presented Mr. Dickey in its 1986 proceeding, U-86-100, as the sponsor of its cost of service study. Mr. Dickey in that proceeding, as in this one, used a method that is extremely favorable to large-use customers. The Commission Staff retained a consultant, Ben Johnson and Associates, to prepare and present an alternative study. The alternative study, sponsored by Ben Johnson and Kimberly Herbig, differed from Mr. Dickey's in several important ways:

a. Staff consultants apportioned gas supply costs primarily on total commodity use[1], while Mr. Dickey had assigned more of this cost on the basis of peak capacity demand for the commodity[2];

b. Staff consultants apportioned all distribution costs on the basis of a combination of actual demand and commodity[3], while Mr. Dickey had focused on peak demand and customer count, using the "minimum-size" method that this Commission has repeatedly rejected;[4]

c. Staff consultants apportioned the investment in service connections on a combination of factors such as customer count, peak demand, and commodity usage[5], while Mr. Dickey had assigned these costs purely on a per-customer basis;[6] and

d. Staff consultants apportioned the company's administrative and general (A&G) costs on the basis of total operation and maintenance (O&M)

[1] U-86-100, Exhibit No. T-78, p. 9, lines 4-15 (Herbig).
[2] U-86-100, Exhibit No. T-42, p. 18, lines 19-25 (Dickey).
[3] U-86-100, Exhibit No. T-78, p. 48, lines 20-25, p. 8, lines 20-25 (Herbig).
[4] U-86-100, Exhibit No. T-42, p. 15, lines 4-8, p. 16, line 23 through p. 18, line 8 (Dickey).
[5] U-86-100, Exhibit No. T-78, p. 5, lines 7-15 (Herbig).
[6] U-86-100, Exhibit No. T-42, p. 17, lines 1-4 (Dickey).

expenses including the cost of natural gas[7]. Mr. Dickey had excluded gas costs in his formula, shifting A&G expenses significantly to the small-use customer classes[8].

Q. What was the Commission decision in that proceeding?

A. In its Fourth Supplemental Order in U-86-100, the Commission adopted the methodology presented by the Commission Staff witnesses and rejected the Cascade methodology. It modified the Staff methodology in one aspect recommended by Public Counsel, to recognize that Cascade (at that time) had a surplus of contracted natural gas supply capacity, and ordered that all gas supply capacity costs be allocated based on commodity throughput. Perhaps most importantly, however, the Commission stated that:

> In future natural gas rate proceedings, the Commission will consider cost of service study results as *one factor* when making rate spread and rate design decisions.[9]

Q. What was the next proceeding in which gas cost of service was addressed in detail?

A. The next major proceeding involved a rate case filed by Washington Water Power in 1990. *WUTC v. Washington Water Power Company*, Docket No. UG-901459, Third Supplemental Order (March 9, 1992). By this time, federal restructuring of the gas industry had evolved and large customers were purchasing their gas from non-utility suppliers. Consequently, the Commission ordered that the Company

[7] U-86-100, Exhibit No. T-78, p. 11, lines 3-9 (Herbig).
[8] U-86-100, Exhibit T-42, pp. 18-19, lines 19-7 (Dickey).
[9] *WUTC v. Cascade Natural Gas Co.*, Cause U-86-100, Fourth Supplemental Order, p. 11 (May 21, 1987) (emphasis added).

prepare a cost study that treated gas "transportation" as a separate and distinct service.

Q. What methodological changes did the Commission approve in this proceeding?

A. Washington Water Power (WWP) had proposed that distribution plant be classified as 100% demand-related. The Commission rejected this in favor of a method based on 25% non-coincident peak, 25% coincident peak, and 50% throughput. The Commissions stated:

> Cost of service analysis thus should reflect the fact that fixed costs are incurred for the company to deliver gas year-round, not just on a peak day.[10]

Q. What significant changes did the Commission approve in *WWP* relative to the *Cascade* decision?

A. There were two significant changes. First, the Commission approved the direct assignment of distribution costs to very large customers, where there were specific facilities serving only those customers, and then exempted them from the system costs of general distribution. Perhaps more important, the Commission ordered the use of multiple days of actual peak demand be used to allocate those costs that were found to be demand-related.

Q. What is the final of the three seminal gas cost allocation decisions you alluded to earlier, and what issues were resolved in that proceeding?

[10] *WUTC v. Washington Water Power Company*, Docket No. UG-901459, Third Supplemental Order, p. 8 (March 9, 1992).

A. The third case was decided in 1994 and involved Washington Natural Gas (WNG). *WUTC v. Washington Natural Gas Company*, Docket Nos. UG-940034 and UG-940814, Fifth Supplemental Order (April 11, 1995). In that proceeding, the Commission refined how costs were to be allocated given the evolution in the industry to the point where nearly all large-use customers were using the utility only for "transportation" service and purchasing their gas supply from a non-utility provider.

Q. What is the guidance provided in the *WNG* proceeding that is relevant to this Docket?

A. The most important is the Commission's treatment of A&G costs. In *Cascade*, the Commission ordered these to be allocated on the subtotal of all costs, including gas supply costs. With the evolution of transportation service, large-use customers did not have gas supply costs in the utility revenue requirement, and that method would have shifted costs dramatically to small-use customers. The Commission approved a recommendation by Public Counsel that 50% of A&G be allocated on the basis of throughput, and 50% on the basis of non-gas O&M expenses such as distribution maintenance, customer billing, and other similar expenses, stating:

> The Commission accepts Public Counsel's proposal. The Commission finds persuasive Public Counsel's observation that A&G functions are not devoted to O&M activities. It believes that the Public Counsel proposal best matches expense to benefit.[11]

[11] *WUTC v. Washington Natural Gas Company*, Docket Nos. UG-940034 and UG-940814, Fifth Supplemental Order, p. 15 (April 11, 1995).

Q. Have there been significant gas cost of service decisions since that time?

A. No. Most cases since that time have been resolved by settlement, partial settlement of rate spread issues, or by reliance on the methods approved in the 1987 – 1995 era.

IV. MR. DICKEY'S STUDY DOES NOT FOLLOW APPROVED METHODS

Q. Does Mr. Dickey's cost study follow the methods approved by the Commission?

A. Mr. Dickey has employed a methodology of his own development, and one that conflicts with previous decisions including the 1987 Cascade decision discussed above. While his cost of service study itself does not disclose all of the allocation assumptions he has made, his testimony indicates some of the deviations from approved methods that he followed. Examples of these deviations expressed in Mr. Dickey's testimony are as follows:

- The testimony indicates Cascade has used a different method for gas supply costs, a so-called "modified fixed-variable" method that has been previously rejected;
- He states that he has used a different method for distribution costs, one that ignores class non-coincident peak demand;
- He has apparently used a different method for service connections, one that ignores the Company's line extension policy and past precedent;
- He has used a radically different and previously rejected method for allocating administrative and general costs; and
- He has allocated contributions in aid of construction and customer advances to all classes (including industrial), instead of to the classes that actually paid these line extension fees (mostly residential).

Q. How have these deviations from past-approved methods affected Mr. Dickey's results?

A. The errors and deviations all have the effect of shifting costs from large-use and transportation customers to small-use core market customers. However, it is impossible to tell how much each element has affected the results, because of the opaque computer model Mr. Dickey has used. All other cost of service studies submitted to this Commission in my 28-year experience have explicitly stated the allocation method used for each line of the study. Mr. Dickey has not done this, instead offering to sell his computer model to the parties for $20,000. Other companies, including Avista and PSE have either made the inner workings of their models available to the parties without limitation (Avista) or under an agreement that allowed unlimited use of the model for the proceedings at issue (PSE). Mr. Dickey and Cascade have neither made the model available, nor set forth specifically the allocation assumptions he used. For this reason alone, Mr. Dickey's cost of service study should be rejected. WAC 480-07-510(6).

Q. Have you been able to prepare an alternative cost of service study that corrects Mr. Dickey's errors, and follows past-approved Commission precedent?

A. No, I have not. The Company's recordkeeping and load research are really not adequate to support an accurate study, in my opinion, and the opaque nature of Mr. Dickey's study made it very difficult to even attempt to do so. What I have done is to perform some sensitivity analysis on a study prepared by Mr.

Schoenbeck, to see how two specific changes to his effort to prepare a Commission-Basis study affected the results.

Q. What are the changes to his study that you examined?

A. I made two specific changes to Mr. Schoenbeck's draft study. First, I applied weighted customer factors to meter reading and billing, using the same weighting factors that the Company prepared for meters. These reflects the fact that large customers' meters are further apart and thus, require more meter reader time. It also reflects that large customers' bills are more complex and since there are fewer customers in each class, more billing system time is required.

Second, I applied the formula for administrative and general costs that he developed for A&G salaries to the category of A&G expenses labeled "employee pensions and benefits" to reflect the fact that many of these costs are associated with company officers, not just distribution system workers.

To be perfectly clear, this is less than a full cost of service study. Cascade must be directed to develop or acquire a more conventional cost model, such as Mr. Schoenbeck's model, for use in future proceedings, so that parties can modify the assumptions and generate results as needed.

Q, What do the results of your sensitivity studies show with respect to cost allocation?

A. My analysis shows that Cascade's residential class is currently paying a rate that approximates its cost of service. See Table 1, "Revenue to Cost Ratio" below shows the result of this study.

Table 1
Revenue to Cost Ratio

Class	Revenue to Cost Ratio Per Cascade's Study by Mr. Dickey	Revenue to Cost Ratio Per Mr. Schoenbeck's Draft Study as Modified by Mr. Lazar
Residential (503)	.87	1.00
Commercial (504)	.96	.86
Large Volume (511)	1.47	1.04
Industrial General Service (505)	.92	.78
Interruptible General Service (570)	1.14	1.23
Transportation (663)	2.25	2.55
Transportation (664)	0.93	1.16
Special Contracts	1.51	0.75

Q. What do these results suggest?

A. First, the results show that the residential class is paying rates that are relatively close to recovering costs. Even if the Commission approves a rate increase there is no basis for a radical assignment of the rate increase as proposed by the Company. Second, it shows that the assumptions used in the cost of service study can have dramatic impacts on the results. This dictates that a more transparent cost study be used, so that the assumptions are evident and can be examined in detail. The Company study does not do this.

V. RATE SPREAD

Q. What has the Company proposed with respect to the spread of rates between customer classes?

A. Mr. Stolz has proposed mechanically following the results of Mr. Dickey's flawed study, and raising residential margin rates by over 32% At the same time, he proposed that certain large-use customers receive decreases, with transportation rates being decreased by 11% in the context of a 14.7% overall increase in margin. Table 2 below shows the margin increases and decreases proposed by Mr. Stolz.

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Table 2

Proposed Margin Changes

Class	Schedule	Current Margin	Proposed Increase	%
Residential	503	$ 29,932,654	$ 9,729,088	32.5%
Dry Out	502	$ 372,852	$ (56,857)	-15.2%
Gas AirCon	541	$ 35,738	$ 15,509	43.4%
Commerical GS	504	$ 16,417,848	$ 3,183,697	19.4%
Large Volume	511	$ 1,014,714	$ (499,084)	-49.2%
CNG	512	$ 12,452	$ (13,581)	-109.1%
Industrial Firm	505	$ 1,407,925	$ 472,681	33.6%
Industrial Interruptible	570	$ 189,142	$ (31,492)	-16.6%
Instittutional Interruptible	577	$ 36,976	$ (13,272)	-35.9%
Subtotal Core		$ 49,420,301	$ 12,786,689	25.9%
Distribution Transporation	663	$ 8,619,620	$ (3,839,428)	-44.5%
Large Volume Transporation	664	$ 5,922,700	$ 1,634,528	27.6%
Special Contracts	901	$ 5,832,167	$ -	0.0%
Subtotal non-Core		$ 20,374,487	$ (2,204,900)	-10.8%
Subtotal Tariff Revenues		$ 69,794,788	$ 10,581,789	15.2%
Total Other Revenue and Taxes		$ 9,760,691	$ 1,130,612	11.6%
Total		$ 79,555,479	$ 11,712,401	14.7%

From: Stolz JTS-9 Schedule 3 P. 2
Addition errors corrected by Mr. Lazar

Q. Is this type of rate spread consistent with Commission precedent?

A. No, absolutely not. Regardless of a company's cost of service results, the Commission has consistently considered non-cost elements when spreading rates. As the Commission stated in *Cascade*:

> As the Commission has stated in numerous orders relating to the electric industry, results of a properly performed cost of service study will be *only one factor* considered by the Commission in determining the appropriate spread of rates among customer classes. The Commission has *never* mechanically applied cost of service study results in making rate spread decisions.[12]

Here, the Commission does not have a properly prepared study before it and the Company is proposing a mechanical application of the results of the study. Both violate the principles announced by this Commission.

Q. What are the reasons the Commission has given for rejecting a mechanical application of the results of a cost study?

A. There are several. First, the studies are far from perfect. Second, they are prepared at a given assumed rate of return and revenue level. Third, they all appear to assume that each class should pay the same rate of return. Fourth, doing so may create severe hardship for certain customers. This last reason was the one given by the Commission in choosing not to set rates at a level that would fully recover industrial service costs in the 1986 *Cascade* case, instead establishing "benchmark rates" upon which the Company was to track the annual subsidies these industrial customers received.

[12] *WUTC v. Cascade Natural Gas*, Cause U-86-100, Fourth Supplemental Order, p. 12 (May 21, 1987) (emphasis added).

Q Has the Commission ruled on the imperfection of studies?

A. Yes. The Commission stated in *WNG*:

> As the Commission has noted repeatedly, it is not obligated to translate any given cost study into rates, merely adding the Company's rate of return to the study's indicated cost of providing service. There are several reasons for this. First, while any cost study looks as precisely as possible at actual expenses, many allocation decisions are made on the basis of judgment and from available alternatives. While we can say that a particular study is sufficient or that its components are the best among the alternatives presented, because of the judgment inherent in any such study we cannot say that it "perfectly" reflects "actual" costs of providing service. We must still exercise our own judgment in translating cost study results into rates.
>
> Second, the validity of cost study results are affected by the validity of the underlying data. Here the cost study does not review actual results of operations, but uses proxies instead. Although trends may be clearly apparent, cost study results could change depending on the results of operations that are used to provide cost and revenue input to the study.
>
> Third, the Commission may consider non-cost factors in determining whether rates are fair, just, reasonable and sufficient. These statutory tests do not inherently connote the strict application of cost study results. Instead, they not only suggest but require the exercise of judgment. [13]

Q. Has the Commission addressed the issue of whether every class should pay the same rate of return?

A. Yes. In the *WNG* decision, the Commission noted:

> The Commission here lacks a cost study that reflects all of its decisions. Public Counsel's observation may be correct that service to different classes may pose different risk to the Company and use of the average rate of return for all classes is not necessarily appropriate.[14]

[13] *WUTC V. Washington Natural Gas Company*, Docket Nos. UG-940034 and UG-940814, Fifth Supplemental Order, p. 17 (April 11, 1995).
[14] *Id*., at p. 15.

In this proceeding, this differential risk is illustrated by the erratic level of usage of some classes of customers. While residential usage varies with weather, it has been stable and growing over a long period of time. Large customer usage, conversely, is extremely erratic, making the stream of income needed to recover the cost of an investment made to serve large customers less reliable. Indeed, the Company is addressing an abandoned plant adjustment in this case to recognize the volatility of its industrial load. Exhibit No.___(JTS-7), Schedule 1 of 1. Graph 1 below shows residential usage on Cascade's system in the bar chart, and transportation customer usage in the line graph. The data is taken from Cascade's Annual Reports to Shareholders, and therefore includes the Company's small service territory in Oregon as well as Washington usage.

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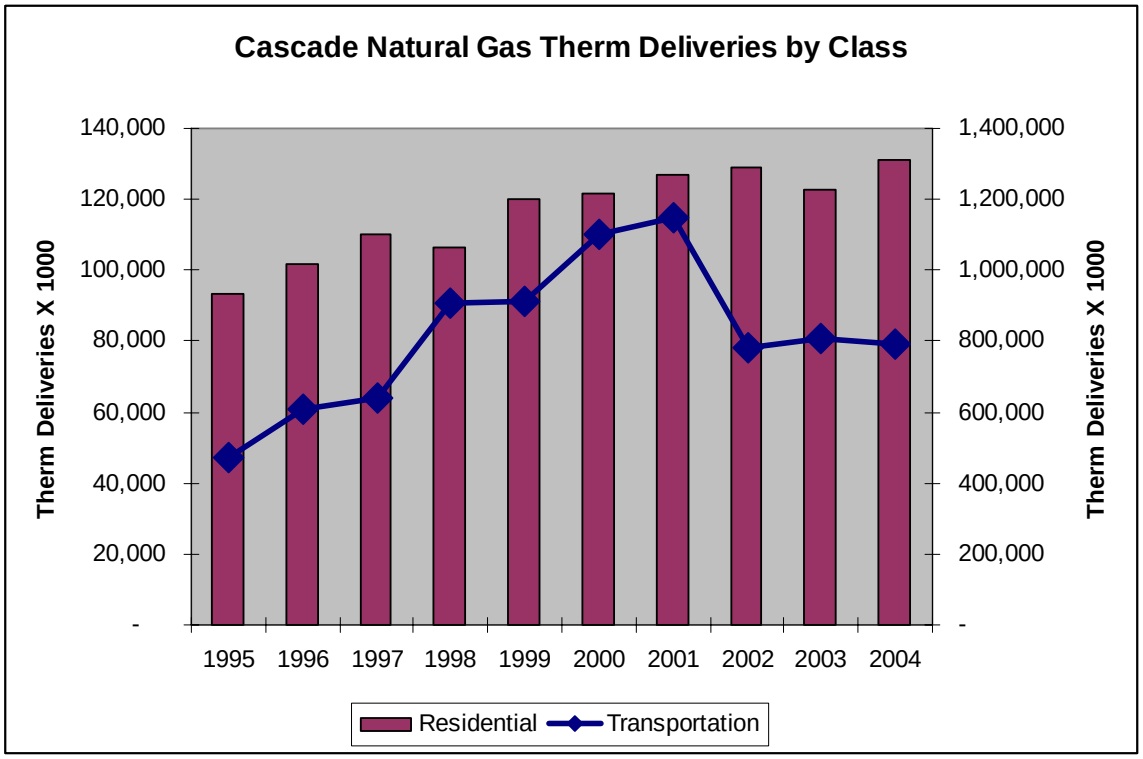

As is evident, while residential usage has been gradually and steadily trending upward (with variations within that trend being primarily weather-driven), transportation volumes have been much more erratic.

Q. How do you recommend the Commission address this issue in this proceeding?

A. First, the Commission should reject Mr. Dickey's cost of service study as not reflecting the methodologies the Commission has previously approved, and not being transparent enough to meet the Company's burden of proof.

Second, if the Commission grants a revenue increase in this proceeding, it should order a uniform percentage of margin increase. Given what I understand will be a moderate increase recommended by the Commission Staff, this is probably not burdensome to any class.

Third, it should direct Cascade to work with the parties to develop a cost of service model that all parties will be able to use in future proceedings, one that is easy to understand, easy to use, and which runs in standard spreadsheet software.

Finally, it should direct Cascade to prepare its next study strictly complying with past Commission direction, and then, if it wishes to present an alternative method as well, to do so and present the justifications for it.

Q. What has past Commission precedent been when an acceptable cost study is not provided?

A. The Commission has sometimes ordered a uniform percentage increase to all classes, sometimes a uniform percentage of margin increase (as I propose here), and sometimes a uniform cents per therm increase. The last would most significantly affect the transportation classes, and, in my opinion, would be just as unfair as the proposal the Company has made to radically shift cost responsibility between classes.

Q. What is the effect of the rate spread methodology you propose?

A. A uniform percentage adjustment to margin for all classes is the most common method for apportioning an increase, in my experience. I have prepared Tables 3 and 4 below[15]. The Tables apply this adjustment at both the Company-requested increase and at a hypothetical total increase of $4 million, an amount consistent with my understanding of the staff-proposed revenue requirement.

[15] I also provide these as Exhibit No. ___ (JL-3).

Table 3[16]

Uniform Percentage of Margin Adjustment at Company-Requested Increase

Class	Schedule		Current Margin		Proposed Increase	%
Residential	503		$ 29,932,654		$ 4,538,176	15.2%
Dry Out	502		$ 372,852		$ 56,529	15.2%
Gas AirCon	541		$ 35,738		$ 5,418	15.2%
Commerical GS	504		$ 16,417,848		$ 2,489,157	15.2%
Large Volume	511		$ 1,014,714		$ 153,844	15.2%
CNG	512		$ 12,452		$ 1,888	15.2%
Industrial Firm	505		$ 1,407,925		$ 213,460	15.2%
Industrial Interruptible	570		$ 189,142		$ 28,676	15.2%
Instittutional Interruptible	577		$ 36,976		$ 5,606	15.2%
Subtotal Core			$ 49,420,301		$ 7,492,754	15.2%
Distribution Transporation	663		$ 8,619,620		$ 1,306,845	15.2%
Large Volume Transporation	664		$ 5,922,700		$ 897,958	15.2%
Special Contracts	901		$ 5,832,167		$ 884,232	15.2%
Subtotal non-Core			$ 20,374,487		$ 3,089,035	15.2%
Subtotal Tariff Revenues			$ 69,794,788		$ 10,581,789	15.2%

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[16] Dollar value in "proposed increase" column is derived from (JTS-9), Schedule 3 of 7, p. 2, line 23, column (f) with math errors corrected by Jim Lazar.

Table 4

Uniform Percentage of Margin Increase at $4 Million

Class	Schedule		Current Margin		Proposed Increase	%
Residential	503		$ 29,932,654		$ 1,715,466	5.7%
Dry Out	502		$ 372,852		$ 21,368	5.7%
Gas AirCon	541		$ 35,738		$ 2,048	5.7%
Commerical GS	504		$ 16,417,848		$ 940,921	5.7%
Large Volume	511		$ 1,014,714		$ 58,154	5.7%
CNG	512		$ 12,452		$ 714	5.7%
Industrial Firm	505		$ 1,407,925		$ 80,689	5.7%
Industrial Interruptible	570		$ 189,142		$ 10,840	5.7%
Instittutional Interruptible	577		$ 36,976		$ 2,119	5.7%
Subtotal Core			$ 49,420,301		$ 2,832,320	5.7%
Distribution Transporation	663		$ 8,619,620		$ 493,998	5.7%
Large Volume Transporation	664		$ 5,922,700		$ 339,435	5.7%
Special Contracts	901		$ 5,832,167		$ 334,247	5.7%
Subtotal non-Core			$ 20,374,487		$ 1,167,680	5.7%
Subtotal Tariff Revenues			$ 69,794,788		$ 4,000,000	5.7%

VI. RESIDENTIAL RATE DESIGN

Q. Please describe Cascade's current residential rate design and the Company's proposed changes to that rate design?

A. Cascade currently has a $4.00 per month Basic Charge to recover meter reading and billing costs, and a uniform delivery rate of $0.22658/therm. The Company is proposing an increase in the Basic Charge to $10.00 per month in winter, and an increase in the delivery rate to $0.26937/therm. Exhibit No. ___ (JTS-9), Schedule 7, p. 15.

Q. Why is the Company proposed rate design inappropriate?

A. The Company proposed Basic Charge would result in double-recovery of infrastructure costs from small-use customers, first through a required payment

under the line extension policy, and a second time through the Basic Charge by including in the Basic Charge elements already recovered throught the line extension policy. The costs of metering, meter reading and billing, which are the only legitimate basis for the Basic Charge, are nowhere near $10.00 per month; these costs are only $3.01 per month, as shown on page 4 of my Exhibit No. __ (JL-4).

Second, increasing the Basic Charge has the effect of suppressing the rate paid per-therm, and that reduces the incentive for customers to conserve gas. Given the spiraling cost of natural gas, a rate design change promoting increased gas use is not good policy.

Finally, Cascade has gas demand which increases sharply in the winter, and increases even more during particularly cold winters. If the Company's rate design was closer to reflecting the incremental cost of providing capacity and gas supply to meet winter demands, additional load constraint could be achieved. I will demonstrate that rate design alone could achieve in the long run a reduction of up to 800,000 therms per year in residential gas usage – a level of conservation that could help break the ongoing spiral of gas costs to the benefit of all customer classes.

In this way, the Company's case is a bit backwards. First it treats too much of the cost as demand-related in the cost allocation phase, shifting costs to residential and small commercial customers, and then it completely ignores this in the rate design phase by failing to propose cost-based inverted rate designs.

Q. What is Cascade's justification for the big increase in the Basic Charge, and why is that inappropriate?

A. Cascade has based its proposal on Mr. Dickey's flawed cost study, which inappropriately classifies the service connection pipes and house regulators as a customer-related cost, and builds this cost into the estimated Basic Charge, a fee that customers must pay even if they have zero usage in a month. In fact, Cascade's line extension policy, Rule 8 in its current tariff, specifically provides that service piping and regulator installations are part of the cost that is factored into the line extension allowance calculation based on the expected volume of gas to be consumed.

Q. What is the significance of the line extension policy on determining the appropriate allocation method for service piping and house regulators?

A. Cascade's line extension policy works as follows: First, the estimated revenues from the Basic Charge are disregarded, presumably because these are applicable to the meter installation, which the Commission rules require be provided without cost to the customer.

Second, the margin revenues for one year are estimated from the estimated volume of gas to be consumed.

Third, this estimated volumetric margin is multiplied by a factor of 6.6. This is the amount that the Company will invest in extending service to a new home or business. Any cost in excess of this is the customer's responsibility.

Because the line extension allowance is entirely volumetric, the recovery of the cost of the plant to which it applies – distribution mains, service piping, and

house regulators – should also be included in the volumetric rate. This prevents double-charging small-use customers for their cost of service.

Q. How does the line extension policy affect a small-use customer?

A. A customer who is not expected to use very much gas – say a cooking-only customer – will receive a very small line extension allowance, because their projected sales and revenue are very small. Due to the relatively small allowance, that customer would have to pay Cascade most of the cost of installing service piping and the house regulator as a Contribution in Aid of Construction (CIAC) in order to receive service. Because the customer paid for most of the line extension, the investment would not create any rate base upon which a return would be required.

In this example, if the customer was expected to use only 5 therms per month (typical cooking usage), and the per-therm margin were $.227 as it is for Cascade currently, the customer would be allowed only $89 towards the cost of their distribution main, service piping, and house regulator (5 therms/month x 12 months x $.227/therm margin x 6.6). The typical cost of these facilities is more like $1,000 per new home, so the customer would pay more than 90% of the hook-up cost as a connection charge, and Cascade would earn a fair rate of return on the company-provided investment of $80 plus the cost of the meter serving that customer through the Basic Charge and commodity charge.

Q. How does the line extension policy work for a larger customer?

A. Conversely, a customer expected to use a large amount of gas (for example, a residential customer with a gas-heated swimming pool) would receive a much

more generous allowance for service piping and the house regulator. If the customer were expected to use 150 therms per month (1,800 per year), that person would receive a Company-paid allowance of $2,247 for the line extension. If the costs were the same – $1,000 – the customer would pay nothing for the connection and Cascade would recover more than the cost of service through the rate design – the new customer would be accretive to earnings.

Q. Why is it important to have symmetry between the line extension policy and the utility's rate design?

A. As long as the costs for service piping and house regulators are recovered in the per-therm charge and not in the Basic Charge, there is congruity between how the costs become a part of the utility's rate base and how the costs are recovered. Small-use customers prepay for their facilities through Customer Advances or CIAC, and then pay a monthly Basic Charge that covers meter reading and billing costs. Large use customers do not pay for their facilities through CIAC, and pay for them over time entirely through the delivery rate per therm for their larger usage.

The problem with Cascade's proposal is that all of the small-use customers who prepaid for their facilities through a CIAC charge would now be required to pay for it a second time, through a $10 per month Basic Charge. Over the long run, this type of pricing will tend to drive away small customers and potential customers who would otherwise contribute both capital and margin to support the utility system. Cascade runs the risk of losing profitable customers to propane, electricity, or other fuels if their gas usage is not sufficient to justify a

higher Basic Charge – but it will not remove any facilities from its distribution system if the customers change energy suppliers. Given the shift in housing construction in Western Washington, towards common-wall and condominium construction, I believe it would be very short-sighted for Cascade to adopt a rate design that alienates a fast-growing segment of the market, consisting of small-use residential customers in high-density developments with very low costs of providing service.

Q. Does the same logic you have used to justify including the cost of distribution facilities in the per-therm rate apply to the cost of the meter?

A. No. The Commission's rules require the utility to provide a meter installation at no cost to the customer. WAC 480-90-313. The line extension policy applies to everything upstream of the meter – the house regulator, service piping, and distribution mains. Because even the small-use customer does not pay for the meter through CIAC, it is equitable to charge them for the meter through the Basic Charge.

Q. What is the actual cost to Cascade for meter reading and billing?

A. According to the Company's response to Public Counsel Data Request No. 64, the meter reading and billing expenses per customer are $18.61 per year, or about $1.55 per month. Adding the capital costs and depreciation expense for the meter would still leave the elements that belong in the Basic Charge at about $3.01 per month, well below the current rate of $4.00 per month. This calculation is shown in my Exhibit No. __ (JL-4), p. 4. Only the Company's approach – double-charging for house regulators, service piping, and associated overhead – justifies a

Basic Charge above the current level. The Company proposal to increase the Basic Charge should be rejected.

Q. Are high Basic Charges something that a competitive marketplace would permit a supplier like Cascade to charge?

A. No. Utilities sometimes argue that much of the cost of providing service are fixed, these fixed costs should therefore be recovered in non-volumetric elements of the rate design. This is anti-competitive, and can only be done where a monopoly is allowed such pricing. In competitive industries, fees for the privilege of being a customer are almost non-existent.

Q. Are there examples of competitive industries with very high fixed costs that do not recover those costs through Basic Charges?

A. Yes. Despite very high fixed costs, oil refineries recover their costs in the per-gallon price of gasoline and other oil products. Airlines also have very high fixed costs and they too recover their fixed costs volumetrically, in per-seat ticket prices. Hotels recover their high fixed costs in a per-room rate. Allowing Cascade to raise its basic charge more than 100% allows it to engage in anti-competitive predatory pricing.

Q. What about Mr. Stoltz's testimony at page 24 in which he says that large Basic Service Charges are becoming much more commonplace?

A. He is only partially correct. In both the Internet and cellular phone fields, the competitive market has evolved, offering competitive services that are almost entirely volumetric in nature.

With regard to Internet Service Providers, some do offer only significant "all-you-can-eat" rates, but many offer lesser plans that allow for per minute usage. For those individuals who benefit from the high usage plan, they will choose that plan. Individuals who benefit from a volumetric minute plan (as I have) will choose that plan. Indeed, now that WiFi is widely available, many more people may utilize per unit plans for their periodic Internet needs. For instance, the availability of WiFi in hotels has allowed me to discontinue the "all-you-can-eat" dial-up service I used for travel. Now I use a volumetric prepaid option. Using this prepaid option in Australia, Hawaii, Mexico, California, Washington, and Canada over the past 18-months has cost me a total of $30 – far less than the Basic Charge I would have paid for a large usage plan.

In the area of telecommunications, Qwest, Verizon, and Cingular offer mostly 40+/month phone packages, many of them with "lots" of minutes and free long distance service. Meanwhile, Tracfone has developed a niche market in prepaid cellular. The annual Tracfone fee of $100 includes a phone, a dedicated phone number, and 12-months of service. It also includes unlimited voicemail, provides for text messaging, and 250 – 450 minutes of service. Customers with low volumetric needs – under about 200 minutes per month – save money under the Tracfone plans.

Therefore, volumetric sales, when an option in a competitive industry allows the customer the choice to avoid high basic charges and minimize their costs. An option Cascade's customers do not have.

Q. What about a company like Costco that charges a membership fee? Aren't these companies recovering high fixed costs through a basic charge?

A. Costco and Sam's Club have both positioned themselves in a niche market, serving a high-volume of consumers. They charge a nominal membership fee, mostly as a way to keep non-buyers from cluttering up their stores. People go to the mall to ***shop***; people go to Costco to ***buy***. But there are also replacements. Essentially everything that can be purchased at Costco or Sam's Club can also be bought at Safeway, Fred Meyer's, or Wal-Mart without a membership requirement and therefore, without a membership fee. For customers whose consumption does not justify membership, these are practical alternatives. Again, Cascade's customers do not have these alternatives.

Q. Is the current Cascade $4.00 per month Basic Charge acceptable?

A. Yes. It appears to be a little bit above cost, but not severely so. Cascade's current rate design – a Basic Charge that covers the $3.01 per month cost of the meter, meter reading, and billing is reasonable, because those are costs that would go away if the customer left the system (assuming the meter could be reinstalled at a different customer premises) or would rise if an existing home were divided into a duplex, creating two customers in the place of one without any line extension analysis or construction. Because the Commission's rules preclude a charge for installation of the meter, regardless of usage, it is fair to have a Basic Charge to recover that mandated investment. However, including other elements of the cost of service in the Basic Charge would result in double-recovery from small-use

customers, first through a required payment under the line extension policy, and a second time through the Basic Charge.

Q. Have you computed residential rates that reflect the current Basic Charge level of $4.00?

A. Yes. These are developed in my Exhibit No. __ (JL-4), and shown below in Table 5. I computed these rates at both the Company-requested level of revenue and at a hypothetical $4 million increase. In both cases, the uniform percentage of margin rate spread approach was applied. The residential increase is applied to the delivery charge.

Table 5

Residential Rates With Current Rate Design

		Current Rate		$4 Million Increase		Company-Requested Increase
Basic Charge		**$ 4.00**		**$ 4.00**		**$ 4.00**
Delivery Charge		**$ 0.22658**		**$ 0.25746**		**$ 0.32382**

Q. In your opinion, is the current Cascade residential rate design optimal?

A. No. The current rate design prices all therms at the same rate. In fact, a gas utility really serves two different kinds of load. The first is dependable, year-round load such as water heating, cooking, clothes drying, and a very limited amount of space heat. Nearly all of these gas customers use 20 – 30 therms per year.

Based on Cascade's bill frequency analysis, about 90% of Cascade's total residential gas sales are to customers whose bill is for more than 30 therms per

month, so a threshold of 30 therms reflects a truly "bare essentials" level of usage. Bills for usage above that level vary widely over the course of the year. In the winter months, the average usage may exceed 100 therms, but that usage is less predictable, and for that reason, should be subject to a higher price that provides the Company with the required revenue over time, knowing that in warmer years, this usage will not produce as much revenue. There is both a load-factor issue, and a risk issue that justify a higher price for the less-predictable space heating usage.

Q. What are the characteristics of the two types of usage you identify, in terms of the cost to provide service?

A. The first 30 therms of residential gas usage tend to be very dependable, occurring nearly every month, and every year regardless of weather. It is what we call a "high load factor" element of usage. Load factor is a term for the ratio of average usage to peak usage. Usage over that level of about 30 therms is less predictable, occurring in the winter, but not in the summer. It has a lower load factor.

In every cost of service study the Commission has approved, at least a portion – generally around 50% – of distribution costs are classified as demand-related. When some costs are classified as demand-related, these costs will be spread over a higher number of average therms per peak therm for high load factor usage, and therefore the cost per therm for distribution is lower for the first 30 therms of usage. The same relationship between cost and load factor is true for gas supply and pipeline transportation costs. The Company reserves pipeline and storage capacity for winter heating, and contracts for winter-seasonal gas

supplies. If those costs were assigned just to the winter space heating usage – the lower load factor applications – the cost per therm for gas supply would be significantly higher for usage over 30 therms.

Q. Has there been evidence before this Commission in the past on the relative load factors of different components of natural gas usage?

A. Yes. In Docket U-89-2688-T, Richard Byers of the Washington State Energy Office testified that the load factor for residential gas water heating was on the order of 93%, while that for residential gas space heating was only 20%.[17] Cascade indicated in response to Public Counsel Data Request No. 17 that it has not performed any analysis of residential usage load factors since 1986. Basically, the demand-related costs of delivery are about five times as great, per therm, for space heating usage as they are for water heating usage.

Q. What is the best way to reflect the higher cost of service for the less-predictable space heat usage in designing residential gas rates?

A. An inverted rate allows for the pricing of the high-load factor non-heating usage at a lower price than the incremental space heating usage that is less predictable. I have designed inverted residential rates that are designed to recover the same revenue requirement at the same test-year sales volumes for comparison. These are developed in my Exhibit No. __ (JL-4), page 2, and shown below:

[17] Byers, Richard, Analysis of Consumer and Marginal Costs for Electric and Natural Gas Space and Water Heat in Single Family Residences in Puget Sound Power and Light Company Service Territory, Exhibit in Cause U-89-2688-T, Submitted September 22, 1989.

Table 6

Residential Rates With Inverted Rate Design

	Current Rate		$4 Million Increase		Company-Requested Increase
Basic Charge	**$ 4.00**		**$ -**		**$ -**
First 30 Therms	**$ 0.22658**		**$ 0.22658**		**$ 0.22658**
Over 30 Therms	**$ 0.22658**		**$ 0.27916**		**$ 0.39217**

In each case, I have held the Basic Charge at the current $4.00 level, and the rate for the first 30 therms of usage at the current level. The residential share of the increase is then recovered in the tail block of the two-block inverted rate.

Q. Why is this preferable to the current flat rate that Cascade has in place?

A. First, it is more equitable. Those customers with higher usage typically have more space heating consumption and lower load factors. Even for the typical customer with a significant amount of space heating usage, their initial block of usage is predictably year round, regardless of weather, and has a higher load factor than their incremental usage.

Second, it is more efficient. By pricing incremental usage closer to the cost of providing that service, a price signal is given to customers about the higher cost of supplying space heating service. Customers can then respond to the higher prices. To the extent that customers use less gas in response to the higher tailblock price, we save gas and reduce pressure on our nation's natural gas supply. If done consistently across utilities, customer classes, and regions, the elasticity response would significantly mitigate gas demand and could bring gas prices down for all gas users.

Q. Have you estimated the elasticity effect of the inverted rates you have designed?

A. Yes. Page 3 of Exhibit No. ___ (JL-4) shows this analysis. I estimate that for Cascade, annual therm savings from price response would total about 265,000 therms/year based on the rate design option I computed for a $4 million overall increase, and nearly 800,000 therms/year based on the rate design option I computed at the Company's requested revenue level and a uniform percentage of margin increase between customer classes. In each case, there is a relatively large decrease in usage by customers whose usage includes the end-block, offset very slightly by a tiny amount of increased usage by customers whose usage in a given month does not exceed 30 therms and who would see a slightly lower marginal price.

Q. Has the Commission recognized this relationship between rate blocks in the past for electric utilities?

A. Yes. All three of the Washington-regulated electric utilities have inverted residential rates, applying a higher rate to the space-heat portion of usage than to the baseload usage of lights and appliances. I believe it is time to extend this principle to gas utilities.

VII. PROPOSED INCREASES IN MISCELLANEOUS CHARGES

Q. What has Cascade proposed with respect to changing miscellaneous charges that the Company imposes?

A. The Company has proposed 100% – 200% increases in the fees for disconnection, reconnection, NSF check charges, and tampered meter charges. It has proposed a new Account Activation Charge of $32.00 and a new Equipment Service Charge of $32.00.

Q. How do the current and proposed Cascade fees compare to those allowed for other gas utilities in Washington?

A. The current fees are generally in line with those approved for other utilities. The proposed fees are generally dramatically higher than those allowed for other utilities. Table 7 below compares the current and proposed Cascade fees to those imposed by Avista, PSE, and Northwest Natural Gas in Washington.

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Table 7

Gas Company Fee Comparisons

Charge	Cascade Current	Cascade Proposed	Avista	Puget Sound Energy	Northwest Natural Gas
Disconnection	$8.00	$25.00	$8.00	$13.00	No Charge
Reconnection Regular Hours	$16.00	$32.00	$16.00	$37.00	$25.00
Reconnection After Hours	$32.00	$100.00	$32.00	$74.00	$50.00
NSF Check	$10.00	$18.00	$15.00	$16.00	$15.00
Tampered Meter	No Charge	$175.00	No Charge	Actual Cost	Actual Cost
Equipment Service Regular Hours	$16.00	$32.00	No Charge	No Charge	No Charge
Equipment Service After Hours	$32.00	$100.00	$32.00	$53.00	No Charge
New Account	No Charge	$32.00	No Charge (unless after regular hours and then one time $32.00 charge)	$6.10	No Charge

Table 8 below compares the proposed Cascade fees to the cumulative average cost of each fee imposed by Avista, PSE, and Northwest Natural Gas in Washington.

Table 8

Cumulative Averages of Gas Company Fee Comparisons

Charge	Cascade Proposed	Other Average
Disconnection	$25.00	$7.00
Reconnection Regular Hours	$32.00	$26.00
Reconnection After Hours	$100.00	$52.00
NSF Check	$18.00	$15.33
Tampered Meter	$175.00	Actual or $0.00
Equipment Service Regular Hours	$32.00	$0.00
Equipment Service After Hours	$100.00	$28.33
New Account	$32.00	$6.10

Q. What is the impact of these proposed charges?

A. All of these proposed charges will have a much more severe effect on low-income consumers (who are more subject to disconnect and reconnect fees) and to renters (who are more subject to the Account Activation Charge). Obviously there is a lot of overlap between these groups since many low income consumers are also renters. Therefore, a disproportionate share of the proposed increases will fall on low-income consumers.

The Company proposal may also have adverse safety impacts if the proposed equipment service charge discourages customers from contacting the

Company is a potential safety issue exists. The language in the PSE tariff is very clear about the safety element of their no-charge safety and inspection services:

> Not all hazardous situations are readily identifiable. Therefore, at the customer's request, the company will inspect and adjust malfunctioning or inoperable gas equipment and facilities for safe and efficient operation.[18]

The Company has presented no analysis of the financial impact of the proposals on such consumers or the safety risks the might create, and it would be premature to adopt such draconian fee increases without adequate research on the impacts. For this reason, I recommend that the proposed fee increases be rejected until the impacts on low-income households and on safety can be studied.

Q. Are there better ways to reduce the incidence of disconnection and reconnection charges than to simply raise the fees?

A. Experience in many states suggests that providing a well-funded and well-designed low-income assistance program will reduce the incidence of disconnections and also reduce uncollectible accounts for the utility. This will reduce utility system costs, and protect the health of vulnerable customers as well as increase the recovery of the cost of service. In this rate case, Cascade has proposed funding a low income program but has tied the funding to a waiver of the prior obligation rule, WAC 480-90-123. The waiver should be rejected and

[18] PSE, Rule No. 24, Second Revision Sheet No. 38-A

Cascade should be directed to fund and administer low-income assistance programs like other Northwest utilities such as PSE and Avista before proposing changes to the miscellaneous service charges. If the Commission rejects low-income funding at this time, Cascade should be directed to study existing programs and, along with other stakeholders, propose a well-deserved tariff rider for low-income programs.

Q. Are there other approaches to reducing the impacts of such fees on low-income households?

A. Yes. For example, in the PSE proceeding now underway, PSE has agreed to a substantial increase in the low-income assistance program on the electric side and a joint proposal by the WUTC Staff, Public Counsel, and the Northwest Industrial Gas Users would do the same for the gas utility. I believe this is a more constructive way to address these costs than fee increases. Similarly, the Service Quality Index developed for PSE in the 2002 rate proceeding penalizes the Company if disconnections exceed a defined threshold. This creates an incentive for the Company to work with low income consumers, advocacy organizations, and funding agencies to reduce the frequency of service disconnections.

VIII. SUMMARY

Q. Please summarize your recommendations in this proceeding.

A. First, I recommend that the Company's cost of service study be rejected, and that the Company be ordered to work with the parties to develop a transparent model that is available to all parties in future proceedings.

Second, I recommend that any increase allowed in this proceeding be apportioned between the classes on a uniform percentage of margin basis. The Company's proposal to apply huge increases to some classes and large decreases to other classes should be rejected.

Third, I recommend that the Company's proposed increase to the Basic Charges be rejected. The Company's metering, meter reading, and billing costs are only about $3.00 per month, and there is no justification for increasing this charge.

Fourth, I recommend that the Commission consider implementing an inverted natural gas residential rate design, similar to the inverted electric rates now in effect. This will improve equity and efficiency, save gas, and ultimately help to bring gas demand under control to help stop the upward spiral of natural gas costs.

Finally, I recommend that the proposed increases to the miscellaneous service fees be rejected, at least until Cascade has a functioning low-income bill assistance program and service quality index in place.

Q. Does this complete your prepared testimony?

A. Yes. This completes my prepared testimony.