Exhibit ___(JL-T-RD)

Before the
Washington Utilities and Transportation Commission

Northwest Natural Gas Company General Rate Case
Docket No.
UG-000073

REVISED

Direct Testimony of

Jim Lazar
Consulting Economist

On Behalf of
Public Counsel

Rate Design Issues

August, 2000

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

A. Jim Lazar, 1063 Capitol Way S. #202, Olympia, Washington, 98501.

Q. Are you the same Jim Lazar who submitted testimony in the revenue requirement phase of this proceeding?

A. Yes.

Q. What exhibits are you sponsoring in this rate design testimony?

A. There is one exhibit, denoted Exhibit ___(JL-RD-1). This computes the customer-related cost of metering, meter reading, and billing, in accordance with the methodology approved by the Commission in Docket UG-920840.

Q. What is the purpose of your testimony in this phase of this proceeding?

A. I recommend that the Company's original filed rate spread and rate design proposals be adopted. These involved a uniform percentage of margin increase to each customer class, and within classes, an equal percentage adjustment to rate element. I recommend that the Company's cost of service study be rejected as it is not consistent with past Commission policy, and it contains errors which make the results unreliable. Any proposal to shift

costs between classes should be rejected because it is inconsistent with well-recognized regulatory principles to avoid shifting costs between classes at the time of a major rate increase.

Q. What was the Company's original rate spread proposal?

A. The original proposal, as described at page 6 of Mr. Ferguson's original testimony and set forth in Mr. Ferguson's original Exhibit 8, was to apply any increase on a uniform percentage of margin basis. The margin for each class was determined by subtracting out those rate elements which are recovered in the Purchased Gas Adjustment mechanisms from the tariff rate. A uniform percentage increase was applied to each residual rate element.

Q. In supporting this original rate spread proposal, are you supporting the rate levels requested by the Company?

A. No. In general, Public Counsel supports the adjustments proposed by the Commission Staff and those I presented in my earlier testimony. This testimony only recommends that, regardless of what level of revenue increase the Commission finds appropriate, that increase be spread among the classes on a uniform percentage of margin basis.

Q. What is the reason for this position on rate spread?

A. There are several. First and foremost, the sheer magnitude of this proposed increase is so large that rate rebalancing should not be done at this time even if an acceptable cost study showed it was consistent with cost causation. This is an absolutely huge proposed increase for customers. A large rate increase is not the appropriate time to be tampering with inter-class rate relationships.

Second, the Company's cost of service study is not an accurate or acceptable indicator of the cost that each customer class imposes on the system. Therefore, it should not be used as a guide for rate spread. Past commission policy, which I describe later in this testimony, has been that when an acceptable cost study is not available, rates are to be spread on a uniform percentage basis. Finally, the adjustments to the revenue requirement proposed by the Staff and by Public Counsel do not fall uniformly on the different classes. Therefore, the cost of service study, in addition to the other problems and errors, is obsolete as well.

I. A LARGE RATE INCREASE IS AN INAPPROPRIATE TIME TO CONSIDER COST SHIFTING

Q. Please begin with a discussion of the magnitude of this proposed rate increase?

A. This proposed increase would raise rates by about 20%. This comes on the heels of a 22% increase on August 1 in the purchased gas tracking mechanism. This proposed rate increase, coupled with recently approved increases in residential gas rates, would lead to

a cumulative two-thirds increase in gas prices for Northwest Natural Gas consumers over the past five years.

Q. Provide a brief history of NWNG rate changes.

A. Prior to the Company's December, 1995 rate increase, residential consumers were paying about $.53/therm.

The Company's 1997 general rate case, Docket UG-970932, ended with a settlement that imposed a significant increase for all customers.

In 1998 and early 1999, negotiations between Northwest Natural Gas, WUTC Staff, industrial customers, and Public Counsel led to a significant shift in cost responsibility. In Docket UG-990511, the Commission approved tariff changes which caused residential rates to increase annually, with decreases applied to industrial transportation rates.

During this time, there have been several purchased gas cost tracking increases, the largest of which is the August 1, 2000 increase of $.14/therm. This was a 46% increase in gas cost from $.30 per therm to $.44 per therm, which translated into a 22% increase in total retail rates paid by residential consumers.

Finally, this general rate filing, if approved as filed, would take residential rates up to about $.87/therm by December of this year. This is a combined **64% increase** above the level five years earlier. To add inter-class cost shifting on top of the result of the 1998 negotiations, at the time of two massive increases (the August 1 tracker, and the general rate filing) would produce unacceptable rate shock to consumers.

Q. What regulatory principles suggest that shifting the rate relationships between classes are inappropriate at a time of large rate increases?

A. The primary principles are perceptions of equity and fairness, stability, and customer acceptance. As I show later in this testimony, these principles have been enunciated by this Commission repeatedly in past rate spread and rate design decisions.

Q. Would the level of rates the Company has proposed lead to customer acceptance?

A. No. The proposed rate would be approximately $.87/therm. This is equal to or greater than the electric rate charged by Clark Public Utilities. The useful heat produced by a gas furnace from a therm of gas is equal to approximately 20 kilowatt-hours of electricity. For a gas water heater, it is closer to 18 kwh. At Clark Public Utility's basic residential rate of $.042/kwh, the electric-heat equivalent rate would be about $.84/therm, and the electric water heat equivalent rate would be about $.76/therm.

Consumers who chose gas heat did so in part in response to a widespread understanding that it was cheaper than electric heat. To shift costs to the residential class and thereby make gas heat equal or more expensive than electric heat would be perceived as a "bait and switch" tactic, in my opinion.

Q. Is this problem also evident in Oregon?

A. Not to the same extent. The residential rates charged by the Oregon private electric utilities are significantly higher than those charged by Clark Public Utilities.

II. THE COMPANY'S COST OF SERVICE STUDY IS FLAWED AND SHOULD BE REJECTED

Q. The second reason for not approving a disproportionate shift in costs between classes you noted was problems with the Company's cost of service study. Please identify some of these problem areas.

A. There are several. I will give a few examples, such as the classification of Administrative and General expense, the classification of storage plant, the treatment of the Company's expensive computer system, the functionalization of general plant, and the classification of sales expenses.

Q. How has NWNG classified A&G Expense?

A. Northwest Natural Gas has classified Administrative and General salaries as follows:

Demand	$ 214,195	12%
Customer	$1,454,134	83%
Energy	$ 89,123	5%

This cost assignment leads to a radical overstatement of the customer-related cost responsibility. 50% of this cost should be classified as energy (commodity) related. Since the residential class comprises 86% of the customers, but only about 25% of total therm deliveries, this error shifts costs to residential consumers compared with the methods accepted in past proceedings involving Cascade, Washington Natural Gas, and Washington Water Power.

Q. Does Northwest's classification of A&G costs comply with past practice approved by the Commission?

A. No, the classification of administrative and general costs is radically different from that previously approved by the Commission. In every gas cost of service analysis that the Commission has accepted, approximately half of administrative costs were allocated based on total throughput of natural gas. Initially, in the landmark Cascade case, Cause U-86-100, this was done by allocating A&G costs on the basis of total O&M expense, including the cost of gas. Subsequent to the emergence of gas transportation 50% of these costs have been classified as commodity related, and allocated on the basis of total throughput, while the other half are classified and allocated on the basis of all other non-gas expenses. Having been through the extensive negotiations with industrial customers that led to the cost shifting that has been going on for the past three years, I can verify that large volume customers are very demanding of the Company's administrative resources. In accordance with Commission-approved practices, 50% of this cost should be classified

as energy (commodity) related.

Q. What leads to the above error?

A. Because the Company has not actually filed its cost of service study as an exhibit, it is not entirely easy to tell. I believe the following errors contribute to this:

1) Overstatement of customer-related plant, particularly the computer system;
2) Failure to classify a significant percentage of storage plant as commodity-related; and
3) Failure to classify 50% of A&G expense as commodity-related.

The first two of these cause too little cost to be classified as demand and energy-related in the "subtotals" from which the A&G costs are classified and allocated on the basis of non-gas O&M.. Therefore, too much of those A&G costs are allocated to the residential class. The last of these directly causes an erroneous allocation of administrative costs.

Q. Your first item above deals with the computer system. How does this affect the cost of service study?

A. The company has invested in a very high-cost computerized customer information system, which in my opinion is entirely unnecessary to serve Washington ratepayers. A

more sensible approach would have been to contract with Clark Public Utilities to provide meter reading and billing services for NWNG. The prudence of this decision is a revenue requirement issue, which was addressed in the early phase of testimony. Having made this investment, however, the Company then appears to classify this investment as customer-related, when in fact it is needed in large part because of the varying usage of consumers, and therefore should be treated as a usage-related cost.

Q. In discussing A&G cost, you noted a failure to classify a significant percentage of storage plant as commodity related. How has the Commission ruled that storage plant should be classified?

A. In both Washington Water Power and Washington Natural Gas proceedings, the Commission ordered that storage be classified primarily as commodity-related. In the pending Avista rate case, the Company classified its storage plant as 77% commodity-related, and 23% energy-related. This is because storage provides a financial benefit, in terms of reduced purchased gas commodity expense when storage reservoirs are filled during low-cost periods. Since those gas cost <u>savings</u> get passed through on the basis of volumes, it is important to classify the <u>costs</u> on the same basis.

Q. How has NWNG classified storage plant costs?

A. The company appears to have classified these costs as follows:

Demand:	$7,539,334	92%
Energy:	$ 656,750	8%

Q. What is the effect of classifying too much of the cost of storage as demand-related?

A. It has the effect of sharply shifting this cost from the larger, higher-load factor customers to the small, lower load-factor customers. While the high load factor customers share equally in the commodity cost savings which storage plant makes possible, they do not share ratably in the cost of storage plant which makes these gas cost savings possible.

Q. How has the Commission treated sales expenses in gas cost of service studies?

A. In the Cascade decision, Cause U-86-100, the Commission approved the staff's recommendation, which was to classify classify sales expenses as 50% customer related, and 50% commodity related. In the Washington Natural proceeding in 1992, the Commission did NOT approve the Company's proposal to treat these expenses as 100% customer-related.

Q. How has NWNG classified these costs?

A. It has classified these as 100% customer-related.

Q. What is the impact of that on the result of the cost of service study?

A. This treatment shifts costs from larger customers to residential consumers.

Q. Taken as a whole, how do the results of the NWNG cost of service study compare with other studies performed in a manner generally consistent with past Commission direction?

A. The NWNG study shifts costs sharply to the residential class. For example, the recently-filed Avista gas general rate case computed the total customer-related costs of $10.17/month per customer (including services) or $4.13/month excluding service connection pipes. The NWNG study computes a customer-related cost of $24.89 per month per customer. This is the net result of the types of errors I have noted above.

Q. Have you independently computed the level of costs that should be considered for inclusion in the monthly customer charge, using a methodology previously approved by the Commission?

A. Yes, and this is shown in my Exhibit __(JL-RD-1). This uses the methodology specifically accepted by the Commission in the Washington Natural Gas rate proceeding, UG-920840.[1] This treats the cost of meters, meter reading, billing, and the general plant,

[1] In UG-920840, the Commission stated: "The reduction in residential rates should be equal to the system average, with the reduction first applied to reduce the customer

administrative, and general cost associated with these facilities as customer-related for consideration in developing the customer charge. Based on monthly, stand-alone meter reading and billing (the Company's current practice), this produces a customer cost for consideration in setting the customer charge at $3.85 per month, compared with the Company's study estimate of $24.89. This is below the current charge of $4.00. With cost saving measures, such as bimonthly meter reading and billing, joint meter reading and billing, or both, I estimate that the Company could reduce this further, to as little as $2.50 per month per customer.

Q. Have you included the cost of service connection pipes in your analysis?

A. No. As a part of the stipulation in Docket UG-970932, the cost of service connection pipes is treated as part of the volumetrically-driven line extension allowance; a small-use customer must pay for their service connection pipe either through a contribution in aid of construction or through a new customer rate surcharge. Therefore, to the extent that these costs appear in the Company's rate base, they are related to usage, not to the number of customers served.

Q. What conclusion do you draw from this analysis?

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charge from $4.51 to $4.00 per month, on the basis of Public Counsel's cost analysis. Any further reduction should be applied to the commodity rate." [4th Supp. Order, P. 42]

A. The Company's cost of service study is fraught with erroneous assumptions and methods, produces unreliable results, and should not be relied on for spreading rates between classes, nor for setting rates within classes. In the absence of an acceptable cost study, the Commission previously stated policy is to spread rates on a uniform percentage of margin basis, and retain the current rate design, as proposed in the Company's original filing.

III. REVENUE REQUIREMENT ADJUSTMENTS ARE NON-UNIFORM ACROSS CLASSES

Q. Why is the non-uniformity of the proposed revenue requirement adjustments across classes the third reason you recommend a uniform percentage adjustment to margin?

A. The proposed adjustments by Public Counsel and by Staff are non-uniform in their impact on the customer classes. Therefore, assuming that the Commission adopts some or all of the proposed adjustments, the effect would be to change the relative results of a cost of service study. Therefore, even if the cost of service study used a proper methodology, the changes in the revenue requirement would render that study obsolete. The staff-proposed changes are very significant.

In my revenue requirement testimony, I recommended that meter reading and billing costs be constrained, as the Commission has required for other gas utilities. This would benefit small-use residential and small commercial customers, but would not affect large volume

users for whom monthly meter reading is both appropriate and insignificant as a part of total cost. The staff and I both recommended disallowance of a portion of the Customer Information System. The billing portion of this cost falls most heavily on small users (and the Company has assigned some 86% of this cost to the residential class). Therefore, even if the Company's cost study methodology were acceptable, the inputs to that methodology are not acceptable, and therefore the results are not meaningful.

Q. What has the Commission's policy been when it does accept a particular cost of service study for realigning rates?

A. The only example of the Commission fully accepting a cost of service study and ordering rates based on that study was in Puget's 1992 proceeding (UE-921262). First, a year-long collaborative met, and the participants became familiar with the operation of the Company's cost of service study. The Commission specified explicit methods to be used to measure cost of service in the 9th Supplemental Order. It then ruled on the revenue requirement issues in the 11th Supplemental Order, and directed the Company to re-run the cost study using the approved revenue requirement and approved cost methodology. Rates were then implemented which moved one-third of the way towards the results of that study.

Q. Why were rates moved only one-third of the way toward the results of the study?

A. The Commission did not state an explicit reason in that proceeding. However, in many other proceedings, the Commission has indicated that cost of service is only one element of the rate setting process. For example, in both Causes U-78-05 and U-85-53, the Commission stated:

> "We shall avoid the mechanical application of the results of a given study and instead as required by law, exercise our own considered judgment based upon the evidence in each proceeding to establish just an reasonable rates." [U-85-53, 2nd Supp. Order, P. 59]

My impression of the Commission's 1992 decision was that there were other factors which required a more gradual movement in rates. In that particular proceeding, Puget's industrial customers were paying far less than the cost of service, and bringing them more aggressively into line with costs could have caused significant adverse impacts. The industrial classes on Puget's system were paying only about 90% of the cost of service after implementation of the one-third movement toward the results of the cost of service study.

Q. What other guidance has the Commission provided on the gradual movement of rates?

A. In the Cascade Natural Gas 1986 proceeding (U-86-100), the Commission determined that moving industrial rates all the way up to recover the cost of service would cause disruption for those customers, and ordered a significant discount from full cost-based

rates, with explicit subsidies provided by other customer classes. Cascade was required to track the cumulative subsidies to industrial customers for potential future rate treatment in the event that competitive conditions were to change. In doing so, the Commission stated:

> "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.
>
> "Other factors which the Commission has historically considered include acceptability of rate design to customers, elasticities of demand (the variation of demand when prices change), perceptions of equity and fairness, rate stability over time, and overall economic circumstances within the region." [U-86-100, 4th Supp. Order, P. 12]

In two successive Washington Water Power proceedings, Causes U-82-10 and U-83-26, the Commission rejected the cost of service studies, and ordered uniform percentage adjustments. In doing so, the Commission stated:

> "By applying the Commission's determinations in the Cost of Service Study section above, the company will develop a new cost of service study that more closely reflects the appropriate factors and methodologies. It is not proper to attempt to restructure class relationships in this proceeding without analyzing the results of that further study." [U-82-10, 2nd Supp. Order. P. 38]

In the next case, the Company had still not produced an acceptable cost of service study. The Commission again ordered a uniform percentage adjustment, stating:

> "In the absence of an acceptable cost study, the Commission will

> apply an equal percentage increase to customer classes in order to preserve existing relationships, except for the street and area lighting class discussed at page 35." [U-83-26, 5th Supp. Order. P. 33]

Q. Have you prepared an independent cost of service study in this proceeding?

A. No. I compared the relative rates, by class, of NWNG's current rates to those for Puget Sound Energy and Avista. Because the rates for all classes on the NWNG system are higher than for the comparable classes on the other systems, I concluded that the current rate relationship is reasonable.

IV. RESIDENTIAL RATE DESIGN

Q. Please turn to the issue of residential rate design. What has the Company proposed in it's direct case?

A. The company has proposed to hold the customer charge at $4.00 per month, and to apply the rate adjustment to the rate per therm, as shown in Mr. Ferguson's Exhibit 8.

Q. What is your recommendation on residential rate design.

A. I recommend that the Company's original proposal be adopted. The current $4.00 customer charges in Schedules 2 and 24 (and the implicit customer charge of $3.37 in Schedule 1) are consistent with my analysis of the costs of meters, meter reading, and

billing, and should not be increased.

If I were to do a complete analysis of the underlying costs on the Northwest Natural Gas system, I would probably recommend that a two-step inverted block rate be implemented, rather than the current flat and declining block residential rates. Customers with electric water heating would be entitled to the lower-priced initial block. The reason for this is that electric water heating, cooking, and clothes drying load (approximately the first 20 -30 therms of usage) are high-load-factor end uses (70% - 90%, on an annual basis), and the cost of serving these year-round loads is lower than for space heating loads, which is more "peaky" in nature (with load factors in the 20% - 25% range). Because a significant portion of both gas costs and distribution costs are demand-related, the higher load factors of these non-heating loads should lead to a lower price for the gas serving these loads. A cost-based rate design would provide the first 20 - 30 therms of gas to customers with non-heating appliances at a lower rate than incremental usage for space heating. This would send a more accurate price to space heating customers, encouraging them to use gas more sparingly.

Q. Why are you not proposing a change in the rate design, if you believe that an inverted rate would more accurately reflect costs?

A. For the same reason that I recommend the Commission not base rate spread between classes on the results of any particular cost of service study: a major rate increase is not the right time to introduce severe cost shifts either between customer classes or between

customers within a customer class. Adopting a cost-based rate design would shift costs to customers with gas space heat as their primary use; these customers will see more than enough rate shock this winter when their bills reflect new purchased gas costs. I do not recommend any rate redesign in order to avoid a compound effect on consumers.

Q. Does this complete your testimony in this phase of the proceeding?

A. Yes.