BEFORE THE

WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

UG-__

GENERAL RATE APPLICATION

OF

NORTHWEST NATURAL GAS COMPANY

MARCH 28, 2008

Direct Testimony of Kevin S. McVay and Natasha C. Siores:

Revenue Requirements
Test Period and Adjustments

REVENUE REQUIREMENTS

TEST PERIOD AND ADJUSTMENTS TESTIMONY

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I. Introduction & Summary

Q. Please state your name, address, and position with Northwest Natural Gas Company.

A. My name is Kevin S. McVay. My business address is 220 N.W. Second Avenue, Portland, Oregon 97209. I am a financial consultant to the Rates and Regulatory Affairs Department and Finance Department of Northwest Natural Gas Company (NW Natural or company). My qualifications appear at the end of this testimony.

A. My name is Natasha C. Siores. My business address is 220 N.W. Second Avenue, Portland, Oregon 97209. I am a rate analyst in the Rates and Regulatory Affairs Department of Northwest Natural Gas Company (NW Natural or company). My qualifications also appear at the end of this testimony.

Q. What is the purpose of your testimony?

A. We present the analysis of test period results, describe the Company's proposed test period adjustments, and present the calculation of the revenue requirement increase requested by the company in this proceeding.

Q. Please summarize the results of the analysis of test period results and adjustments to those results.

A. As shown in our accompanying Exhibit No.___ (KSM/NCS-2), the test period results in column (a) indicate an overall rate of return on rate base

(ROR) of 7.13 percent at line 16, and a corresponding rate of return on equity (ROE) of 7.61 percent on line 17. After adjusting the test period results for normal weather, the addition of new facilities, and other normalizing amounts in column (b), the overall is 6.51 percent. Finally, to achieve the ROE of 10.65% as recommended by Dr. Hadaway and the ROR of 8.68 percent presented in Mr. Miller's testimony (and shown in column (e) the analysis shows that an increase in revenue of $4,342,062 is required, as shown in column (d).

II. Test Period

Q. What is the purpose of this section of your testimony?

A. The purpose of this section of testimony is to establish the Company's financial results for its Washington operations for the test period. The test period that is being evaluated by the Company to determine the need for a rate increase is the 12 months ended September 30, 2007. The determination of actual results for the test period is primarily accomplished by a state allocation of discrete revenue and expense items, as well as the construction of a 13-month average rate base for the period. We will refer to *Exhibit No.___ (KSM/NCS-3)*, which we have prepared for the explanation of the test period results.

Q. Please describe *Exhibit No.___ (KSM/NCS-3)*.

A. Page 1 of the exhibit presents the results of operations for the entire utility for the test period in column (a), and the results of operations for

Washington in column (b). The only other jurisdiction in which the Company has utility operations is Oregon.

The revenues on lines 1 through 4 and the gas cost on line 5 reflect 12 month ended results through September 2007. The revenues for Washington are almost completely direct; that is, they are the actual revenues generated from Washington during the 12 months. The exceptions are the allocation of utility property rental income and income for services rendered to producing entities at Mist under Miscellaneous Revenues, which are allocated using the 3-factor rate. The gas costs for Washington are calculated to correspond precisely to the gas costs collected in billing rates over the period, which parallels the deferral treatment accorded gas costs in Washington.

Line 6 identifies uncollectible expense and line 7 represents other Operations & Maintenance (O&M) Expense. Because there are substantial common costs within O&M Expense, it is necessary for a large number of system amounts to be allocated to Washington. Pages 2 through 3 of *Exhibit No.___ (KSM/NCS-3)* show the allocation of O&M Expense to Washington and Oregon. Additionally, the derivation of allocation factors used are shown on pages 4 and 5. *Id.*

Q. Please describe the allocation methodology.

A. The Company's method to allocate common costs begins with an initial identification of non-common costs, with a direct assignment of those

costs to the appropriate jurisdiction. The remaining costs are then considered with respect to specific "drivers," or elements such as volumes or customers that have a causative effect on costs. If a cost is related to a particular driver, it is allocated on that basis. Lastly, if there is a common cost with a mix of drivers or no apparent single driver, it is allocated on the basis of a multi-part allocation factor, the 3-factor rate. This 3-factor rate is composed of the average of 1) the proportion of one jurisdiction's directly assigned gross plant to the system total, 2) the proportion of one jurisdiction's number of customers to the system total, and 3) the proportion of employees directly assigned to the system total.

There are 21 primary allocation factors used in assigning O&M Expense, and they are shown at the bottom of page 5 of Exhibit No. (KSM/NCS-3). Even though the number is somewhat high when considering the desired simplicity of a method, a review of the nature of the factors shows that most are just refinements of the drivers typically relied on, namely volumes and customers.

System and jurisdictional O&M as shown on pages 2 and 3 of Exhibit No. ___ (KSM/NCS-3) indicates the total amounts of O&M Expense allocated to each state, and the overall percentage of O&M Expense allocated to Washington of about 10 percent. These total O&M Expense amounts include uncollectible expense, so when returning to the

results of operations on page 1, lines 6 and 7 represent a breakout of the total O&M Expense.

Q. Please continue your explanation of page 1 of Exhibit No.___ (KSM/NCS-3).

A. Lines 9 and 10 of page 1 represent the federal income taxes and Oregon excise taxes reported for the test period for the system basis, and the federal taxes for Washington. To calculate the Washington historic tax provision, interest was taken as the cost of long- and short-term debt multiplied by the proportion of rate base supported by those debt components. Calculated in this way, taxes for Washington operations need not be recalculated as an adjustment to account for the exclusion of typically included interest income as well as the revision of the interest expense level to reflect capital structure and rate base.

Line 11 details the System and Washington expenses for property taxes during the test period. The Washington amount reflects the direct assignment of property taxes incurred.

Other Taxes on line 12 include franchise taxes, which are assigned directly to each jurisdiction. Payroll Taxes are allocated using a payroll factor generated in the O&M Expense allocation model that reflects the weighted average of all other cost allocations as they were used for accounts containing payroll expense. Miscellaneous other taxes are almost all directly assigned.

Because of their interdependence, Depreciation and Amortization on line 13 can be explained in conjunction with the determination of System and Washington Total Rate Base on line 16, which are detailed on pages 6 and 7 of Exhibit No.___ (KSM/NCS-3). The following explanation of the allocation of gross plant in rate base applies as well to the allocation of depreciation and amortization expense and accumulated depreciation in rate base. As with O&M Expense, the use of direct assignment is the default approach, and is available for the allocation of production, non-storage transmission, and distribution plant. Intangible plant concerning computer software, which is primarily Customer Information System software, is allocated using all customers due to its service to customers generally. Storage and storage transmission plant is allocated on the basis of firm volumes, insofar as it is considered a substitute to pipeline capacity. CNG and LNG facilities are allocated using the 3-factor approach, due to their contribution to various Company activities. General plant is allocated on both the direct as well as by using a 3-factor approach.

The other elements of rate base are 1) cushion gas in storage which, following the storage plant, is allocated on firm volumes; 2) customer advances, which are directly assigned; 3) unamortized leasehold improvements, which have been allocated on a 3-factor approach for improvements in One Pacific Square and the district office in

The Dalles and directly assigned for other districts; and 4) deferred taxes, which are directly assigned in the case of state deferred taxes and allocated on the basis of percentage of total gross plant for federal deferred taxes, after grossing up for the effect of state deferred taxes on the federal amount. End of period amounts are included in both the System and Washington rate base, consistent with the treatment for deferred taxes in the Company's latest rate case.

Q. Please explain lines 17 and 18 on page 1 of Exhibit No.___ (KSM/NCS-3).

A. For System results in column (a) and Washington specific results in column (b), line 17 represents the overall ROR using the Net Operating Revenue on line 15 divided by the Total Rate Base on line 16. Line 18 is the resulting ROE when the debt cost components of the capital structure are removed from the overall return.

III. Test Period Adjustments

Q. What is the purpose of this section of your testimony?

A. In this section, we describe the adjustments the Company has made to the test period to annualize changes that occurred during the period and to include pro forma changes that are known and measurable after the end of the period. As described above, the Company is using the 12 months ended September 30, 2007 as the test period in this proceeding. The rate increase that is required for the Company to earn its proposed

10.65 percent ROE is $4,342,062. We will refer to *Exhibit No.___ (KSM/NCS-4)*, which we have prepared for the explanation of the adjustments.

Q. Please describe *Exhibit No.___ (KSM/NCS-4)*.

A. As described in the initial section of this testimony, page 1 of the exhibit presents the Company's results of operations for the test period (column (a)), the results for the test period normalized and adjusted at present rates (column (c)), and the results for the test period at the proposed rates (column (e)). Column (b) of the exhibit represents the sum of all adjustments made to normalize the test period and column (d) represents the proposed increase to revenues to achieve the Company's requested ROR. Column (b) is explained in detail on pages 2 and 3 of the exhibit. Those pages provide an issue-by-issue accounting of the adjustments, and each column or adjustment is supported by one or more workpapers that are included in the exhibit and labeled by the corresponding column heading letters. Because most of the adjustments are related to issues that affect the Company at a System level, those adjustments are performed at a System level first, and the amount of the adjustment is then allocated to Washington with the same factors used to allocate the historic test period results.

Q. Please describe the adjustments shown on page 2 of *Exhibit No.___ (KSM/NCS-4)*.

A. Column (a) on page 2 adjusts the company's revenues and gas costs for the following items: 1) residential and commercial usage is normalized to reflect normal weather and the pricing currently in effect (Docket UG-071780, effective November 1, 2007); 2) usage for industrial customers is annualized; 3) delivered volumes are re-priced to reflect permanent rates currently effective in Washington; and 4) the cost of gas expense is adjusted to reflect the gas costs currently embedded in rates.

Q. Please explain the methodology used to normalize residential and commercial gas use.

A. Residential usage and commercial usage were normalized with respect to the effects of weather (as measured by heating degree days) and prices on gas consumption.

Q. Please define heating degree days.

A. The degree day is a unit of measurement based on the difference between the average temperature for a day and 65 degrees. For example, if the average temperature is 50 degrees on a given day, the degree days for that day would be 15. Degree days are additive in that the sum of the daily degree days over the course of the month are taken to represent that month's weather. The degree day is a common unit of measurement that allows for an analysis of increasing usage as a function of increasingly colder weather.

Q. Please explain how usage is normalized.

A. For the pricing component, we perform a regression that identifies the response of annual usage to both weather and prices. The statistical coefficient for price that results from the regression is a measure of elasticity, or customers' response to price changes over time.

For the weather component, actual monthly consumption for residential and commercial customers is first adjusted for the price variable above, then is statistically compared to actual monthly heating degree days over several years to determine use per heating degree day factors, as well as usage factors for deriving base use, or that level of use that would occur regardless of heating degree days. The factors for price and weather are then applied to customer counts, normal heating degree days, the number of days in each month, and expected rate case prices to generate what the usage would be if normal weather actually occurred. The Company uses a 20 year average of Vancouver (NOAA Station 458773 Vancouver 4NNE) degree days to derive normal degree days. Page 6 of Exhibit No.___ (KSM/NCS-4) supports the adjustment in column (a) on page 2 of Exhibit No. ___ (KSM/NCS-4), and shows the calculations of normalized use for the test period.

Q. Please describe how the usage per customer resulting from the normalization process you describe compares to the normalized usage per customer in the Company's prior Washington general rate case (Docket UG-031885).

A. The normalized use per customer in this proceeding is 715 therms for the residential customer class, and 4,024 therms for the commercial customer class. In the Company's prior Washington general rate case (Docket UG-031885), these numbers were 758 for residential customers and 4.435 for commercial customers (base on 20-year normalized weather). This equates to a decline in gas use for residential customers of 43 therms, or 5.7 percent per year, and a decline in gas use for commercial customers of 411 therms, or 9.3 percent per year. At margin rates (class average rates less cost of gas and demand charges), and average customer counts for the test period, this annual decline in gas use translates into a decrease in margin of $1.3 million for the residential customer class and a $900 thousand decrease for the commercial customer class, or a total margin decrease of $2.2 million.

Q. Please explain how volume normalization for industrial customers was addressed in the adjustment in column (a) on Page 2 of Exhibit No.___ (KSM/NCS-4).

A. An annualization for industrial customers was required for only two customers, where the name of the businesses changed during the test period. To normalize load for the customers, the volumes under the original customer name were placed under the new customer name, and all volumes by month were applied to the rate schedules that were being

used by each customer at the end of the test period. The volumes for the industrial customers as a group were unchanged by the adjustment.

Q. Please explain why the normalized volumes are then re-priced at rates currently effective in Washington?

A. A re-pricing of the volumes is done to eliminate the effects of temporary increments in rates and to present revenues and costs at rates which are currently in effect. Because rates have changed during the course of the test period, re-pricing is necessary to accurately reflect current rate levels and gas costs.

Q. How is this re-pricing achieved?

A. The re-pricing is accomplished by multiplying normalized volumes by the currently effective Washington rates for base, commodity and pipeline capacity tariff rates. This is performed for all volumes and rates by each individual rate schedule. Normalized volumes were derived on a class basis. Since each class of service spans several rate schedules, it is first necessary to allocate these class volumes to the appropriate rate schedule. Normal class volumes are allocated to their respective rate schedules based on the distribution of the test period actual volumes.

Distribution capacity charges and sales service storage charges for large volume non-residential sales and transportation customers are calculated by multiplying each customer's current Maximum Daily Delivery

Volume (MDDV) by the currently effective rates for each month of the test period.

Customer charges (the fixed portion of a customer's bill) are calculated by multiplying the actual number of customers by the applicable tariff customer charge. This is performed for all customers and monthly charges by each individual rate schedule. This calculation is performed for each month of the test year and the annual total is added to the result of the repriced normalized volumes to derive the total normalized revenue reflecting current rates.

Q. How are Special Contract revenues incorporated into the test year?

A. NW Natural has customers in Washington that are served under special contracts. These are agreements with specific customers that have particular competitive options which need to be addressed. Some customers, for example, are well-positioned to bypass NW Natural's system and connect directly to the interstate pipeline. Where this is the case, the Company will offer a bypass avoidance contract which will at least match the economics the customer can achieve via bypass. Since each contract is unique, each is included in the test year at its own unique rate.

Q. Please explain how the cost of gas was calculated for the test period.

A. The total cost of gas is set forth in on page 6 of Exhibit No.___ (*KSM/NCS-4)*. Cost of gas for NW Natural can be segmented into

demand costs and commodity costs. Demand costs reflect relatively fixed monthly charges that are incurred for pipeline transportation service from domestic and Canadian pipelines. Commodity costs reflect expenses for gas obtained from domestic and Canadian producers. Each year the Company submits for approval its Purchased Gas Cost Adjustment filing which revises billing rates to include pricing for demand and commodity costs for the upcoming year. The ability to adjust prices on an annual basis for prevailing pricing of gas costs allows for the exclusion of the gas cost pricing issue from general rate cases.

Gas costs were developed using the current gas cost increments from which the current tariff rates for commodity and pipeline capacity were derived. This provides an appropriate level of gas costs in relation to the test year normalized revenues.

Repricing normalized volumes at current revenue rates adjusted to exclude temporary increments, and calculating costs built from the gas cost increments that are currently incorporated into those revenue rates ensures that a matching of revenues and gas costs is achieved in the case.

Q. Please explain the other adjustments on Page 2 of Exhibit No.___ (KSM/NCS-4).

A. Column (b) removes the amortization amounts related to the billing rates during the test period. Because revenues are normalized in the

adjustment in column (a), and set at end of period permanent rates, the temporary increments are removed, and this adjustment mirrors that with the removal of the offsetting amortization. Further, the adjustment serves to set many of the miscellaneous revenue amounts to a three year average to partially remove any anomalies for the items during the test period.

Column (c) adjusts the test period expenses for bonuses. The amount accrued during the year is removed and replaced by the three-year average of amounts paid.

Column (d) adjusts the test period for severance expenses. The Company realigned many of its operating processes during the test period and was able to decrease its workforce by almost 13 percent since early 2006 through attrition and a voluntary severance program. The adjustment serves to retain one third of the expense in the cost of service, such that recovery of the cost of the efficiency program is recovered over an assumed three-year period.

Column (e) serves to replace the property taxes expenses during the test period with the amount most recently billed.

Column (f) adjusts uncollectible expenses to reflect the average of the past three years of actual net write-off percentages, partially eliminating any anomaly that may have been present during the test period.

Column (g) is an adjustment to rate base for working capital, which generates a return on investments in storage gas inventory and other critical assets necessary to perform the utility function.

Column (h) adjusts O&M to reflect disallowances of marketing and promotional expenses for regulatory purposes. The adjustment also proposes an appropriate expense level for consumer information as described in the Customer Communications testimony of Ms. Heiting, *Exhibit No.____ (KAH-1)*.

Column (i) adjusts O&M and rate base to include actual ordinary claims for the test period, replacing the expense accrual activity that is used for claims reserve accounting. The adjustment also serves to include a three-year average of extraordinary claims (claims potentially exceeding $250,000). The use of the three-year average is meant to mirror the treatment of normalizing uncollectible expense, which corrects for year-to-year anomalies in expense levels.

Column (j) annualizes the rate base and operating expense impacts of implementing Automated Meter Reading (AMR) in the Company's Washington franchise territory. The use of AMR provides significant efficiencies and greater billing accuracy compared to traditional meter reading.

Q. Please explain each adjustment on page 3 of *Exhibit No.___ (KSM/NCS-4)*.

A. Column (k) adjusts O&M to provide recovery of estimated rate case expenses assuming a rate case frequency of three years.

Column (l) adjusts O&M and rate base for additional amounts that were not expensed through the clearing process. On a calendar year basis, utilization rates are adjusted to assure that clearing accounts are brought to zero. For the 12 months ended on September, however, it is normal to have a slight mismatch in the amounts subject to clearing and the amounts cleared.

Column (m) provides a subtotal of the effects of all the restating adjustments.

Column (n) adjusts payroll expense to include 1) costs attributable to end-of-period employee counts, and 2) the wages for those employees given the known and measurable increases that have occurred and will occur due to CPI adjustments and bargaining unit contract terms.

Column (o) adjusts health and life insurance expenses allocated to O&M for end-of-period premium rates and employee counts, net of offsets for employee contributions to those benefits. Payroll taxes are adjusted for normalized payroll as provided in adjustment (n). Pension expense is adjusted to reflect the most recent indication of expense that will be recorded in 2008.

Column (p) adjusts depreciation expense to include the results of a depreciation study completed by the Company's consultant Gannett

Fleming during 2007. The study showed that the company's current depreciation rates are too high, and the implementation of new rates would serve to decrease expense. A copy of the summary of results of the study is included as Exhibit No.___ (KSM/NCS-4) on page 22.

Column (q) adjusts taxes to incorporate appropriate permanent difference amounts related to the depreciation on pre-1981 assets and removal costs. A summary of the proposed change is included as Exhibit No.___ (KSM/NCS-4) on page 25.

Column (r) adjusts rate base and depreciation expense to include the new implementation of SAP software. The software enables the Company to introduce new future modules (while replacing some obsolete programs) on a system platform that allows for greater efficiency between Company information systems.

Column (s) provides a subtotal of the effects of all the pro forma adjustments.

Column (t) shows the total of all restating and pro forma adjustments on Pages 2 and 3 of Exhibit No.___ (KSM/NCS-4). This column is replicated on Page 1 of Exhibit No ___ (KSM/NCS-4) as column (b), where rate base is shown in total on a single line.

Q. What is the total effect of the above adjustments on the company's actual results of operations for the test period?

A. As shown on Page 1 of *Exhibit No.___ (KSM/NCS-4)*, column (c) represents the results of operations for the company once annualizing and pro forma adjustments have been included. Line 16 of column (c) shows that the Company is earning an overall ROR of 6.58 percent and line 17 details the corresponding ROE of 6.51 percent.

Q. Considering these results, what revenue increase is required to support the ROE being requested by the Company?

A. The operating revenue increase required to allow the Company its requested ROE of 10.65 percent in Washington is $4,342,062, as shown in column (d) of Page 1 of Exhibit No.___ (KSM/NCS-4). This amount, net of income taxes and other revenue sensitive expenses, is added to the Company's adjusted results, resulting in column (e). Column (e) represents the normalized and adjusted results for the Company at the proposed rates, with an achieved ROE of 10.65 percent.

IV. Qualifications

Q. Mr. McVay, please state your educational background and experience.

A. I received a Bachelor of Science Degree in Accounting in 1981 from George Mason University, Fairfax, Virginia. In 1986, I received a Master of Business Administration degree from George Washington University, Washington, D.C. From 1981 to 1987, I held positions as an Accountant, Staff Auditor, and Forecasting Analyst for Washington Gas Light Company

in Washington, D.C. In 1987, I joined NW Natural as a Budget Analyst and since then, I have held positions as a Senior Financial Analyst, Senior Rate and Financial Analyst, Senior Revenue Requirements and Business Analyst, and I currently hold the position of Financial Consultant to the Finance and Regulatory Affairs departments of NW Natural.

Q. Ms. Siores, please state your educational background and experience.

A. I have been employed by NW Natural since November 2003. My responsibilities include analysis of revenue requirement, cost of service and rate base issues, regulatory deferred accounting, development of regulatory reports, rates and rate filings, assistance in rate design and analysis and research relevant to gas rates and regulatory mechanisms. Prior to joining NW Natural, I was employed by two different subsidiaries of Nicor, Inc. from 1993 until 2003. I held positions as Accountant and General Forecasting Analyst for Nicor Gas, in Naperville, Illinois from 1993 to 1996. Nicor Gas is a local distribution company currently serving 2.2 million customers in northern Illinois outside the city of Chicago. From 1996 to 2003, I held positions as Senior Accountant, Senior Forecast Analyst and General Accounting Manager for Tropical Shipping, a subsidiary of Nicor in Riviera Beach, Florida. Tropical Shipping is a containerized shipping company providing full- and less than-container load liner service throughout the Bahamas and the Caribbean.

I earned my Bachelor of Science degree in Commerce (Accountancy) from DePaul University in Chicago in 1993 and passed the Uniform Certified Public Accountants Exam that same year. I am a Registered Certified Public Accountant in the state of Illinois (license no. 239.000138).

Q. Does this conclude your direct testimony?

A. Yes, it does.