1	Q.	Please state your name, address, and position with Northwest
2		Natural Gas Company.
3	My nan	ne is Kevin S. McVay. My qualifications are presented in my testimony regarding establishment of
4		the historic results of operations for the test period and the allocation of results by state, Revised
5		Exhibit 3 (KSM-Testimony).
6	Q.	What is the purpose of your testimony?
7	A.	I will describe the adjustments the company has made to the test period to
8		annualize changes that occurred during the period and to include pro
9		forma changes that are known and measurable after the end of the
10		period. The test period that is being evaluated by the company to
11		determine the need for a rate increase is the 12 months ended December
12		31, 1999. I will refer to Revised Exhibit 6 (KSM-Exhibit), which I have
13		prepared for the explanation of the adjustments.
14	Q.	Please describe Revised Exhibit 6 (KSM-Exhibit).
15	A.	Page 1 of the exhibit presents the company's results of operations for the
16		test period (column (a)), the results for the test period normalized and
17		adjusted at present rates (column (c)), and the results for the test period
18		at the proposed rates (column (e)). Column (b) of the exhibit represents
19		the sum of all adjustments made to normalize the test period and column
20		(d) represents the proposed increase to revenues to achieve the
21		company's appropriate rate of return. Column (b) is explained in detail on

pages 2 and 3 of the exhibit. Those pages provide an issue by issue 2 accounting of the adjustments, and each column or adjustment is 3 supported by one or more workpapers that are included and labeled by 4 the corresponding column heading letters. Because most of the 5 adjustments are related to issues that effect the company at a system 6 level, those adjustments are performed at a system level first, and the 7 amount of the adjustment is then allocated to Washington with the same 8 factors used to allocate the historic test period results. 9 Q. Please describe the adjustments shown on page 2 of Revised 10 Exhibit 6 (KSM-Exhibit). 11 Α. Column (a) on page 2 adjusts the company's revenues and gas costs for 12 four reasons: 1) residential and commercial usage is normalized to reflect 13 normal weather, 2) rate schedule migration is annualized for customers 14 switching to new schedules 90 and 91, 3) delivered volumes are re-priced 15 to reflect permanent rates currently effective in Washington, and 4) the 16 cost of gas expense is adjusted to reflect the costs currently embedded in 17 rates. I will describe the company's normalization of residential and 18 commercial gas use and the rate schedule migration adjustment and Dr. 19 Ferguson will explain the repricing of volumes at current Washington 20 rates, as well as the adjustment to the cost of gas to reflect costs 21 embedded in current permanent rates.

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1	Q.	Please explain the methodology used to normalize residential and
2		commercial gas use.
3	A.	Residential usage and commercial usage were normalized with respect to
4		the effect of weather (as measured by heating degree days) on gas
5		consumption.
6	Q.	Please define heating degree days.
7	A.	The degree day is a unit of measurement based on the difference
8		between the average temperature for a day and 65 degrees. For
9		example, if the average temperature is 50 degrees on a given day, the
10		degree days for that day would be 15. Degree days are additive in that
11		the sum of the daily degree days over the course of the month are taken
12		to represent that month's weather. The degree day is a common unit of
13		measurement that allows for an analysis of increasing usage as a function
14		of increasingly colder weather. The company uses a 20-year average of
15		Vancouver degree days to derive normal degree days.
16	Q.	Please explain how usage is normalized.
17	A.	The actual monthly consumption for residential and commercial
18		customers is statistically compared to actual monthly heating degree days
19		over several years to determine use per heating degree day factors, as
20		well as usage factors for deriving base use, or that level of use that would
21		occur regardless of heating degree days. The factors are first applied to

1 customer counts, the actual monthly heating degree days, and the 2 number of days in each month to generate what usage would be predicted 3 based on actual weather. A similar forecast is done using normal degree 4 days, producing the usage one would expect during a year when normal 5 weather occurred. The difference between the two forecasts represents 6 the adjustment to gas usage that is necessary to adjust for non-normal 7 weather during the test period. 8 Q. Please explain how rate schedule migration was addressed in the 9 adjustment in column (a) on Page 2. 10 A. As a result of the addition of transportation rate schedules 90 and 91 on 11 June 1, 1999, there were four customer accounts that moved from 12 schedule 4 to schedule 90. While there were provisions in the approved 13 agreement that protected the company from decreased margin 14 contributions from migrating customers, the agreement also stated that 15 "Lost margin attributable to migrating customers will be included in the 16 company's permanent revenue requirement" (Memorandum of 17 Understanding – UG-990511). The adjustment in column (a) includes the 18 effect of removing the volumes for those migrating accounts from the 19 original Schedule 4 prior to the rate change and placing the volumes in 20 Schedule 90, which annualizes the migration between schedules. 21 Q. Please explain the other adjustments on Page 2.

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A. Column (b) adjusts payroll expense to include costs attributable to end of period employee counts and the wages for those employees given the known and measurable increases that have occurred and will occur due to CPI adjustments and bargaining unit negotiations.

Column (c) adjusts health and life insurance expenses allocated to

O&M for end-of-period premium rates and employee counts, including offsets for employee contributions to those benefits. Payroll taxes are adjusted for normalized payroll as provided in adjustment (b). Pension expense is adjusted to reflect a three-year average for those costs to reduce any anomaly present during the test period that results from the significant volatility that occurs in this expense. The adjustment for pensions also includes the effect of an increased benefit in the non-bargaining plan and an offset of expense from the recognition of gains on premiums paid for the company's non-utility program of life insurance.

Column (d) 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 (e) reflects the increased O&M expense for the higher corporate match to the non-bargaining unit employee retirement plan, effective January 1, 2000. The percentage of salary match changed from 50 percent of the first four percent of salary invested to 50 percent of the

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Column (f) is an adjustment to O&M to reflect the elimination of the company's district office in Vancouver, and the subsequent consolidation of personnel in the Vancouver service center. The adjustment eliminates the rental payments for the office, as well as some rent receipts from the sublease of the building. Because the discontinuance of the office is a net ratepayer benefit resulting from efficiency efforts by the company, and because the company had to invest in some leasehold improvements to attract a new tenant, the company proposes to retain the amortization of all of the office leasehold improvements in allowed O&M.

Column (g) includes an amount in rate base for the company's investment in Year 2000 issues. An adjustment is made to O&M to provide for an approximate five-year amortization of the amounts deferred related to Year 2000.

Column (h) 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.

- 19 Q. Please explain each adjustment on page 3 of Revised Exhibit 620 (KSM-Exhibit).
- 21 A. Column (i) on page 3 is an adjustment to rate base such that a return is

1	generated on investments in storage and other critical assets necessary
2	to perform the utility function.
3	Column (j) adjusts O&M to annualize the effect of a rent increase
4	effective May 1, 1999 for the company's One Pacific Square offices.
5	Column (k) adjusts O&M to reflect marketing, promotional, and
6	advertising expense disallowances for regulatory purposes.
7	Column (I) adjusts rate base and depreciation expense to reflect
8	the disallowance of a portion of the company's investment in its Customer
9	Information System (CIS). The adjustment corresponds to the December
10	1999 write-down of Washington's allocated portion of the CIS investment.
11	Column (m) adjusts rate base and depreciation expense for
12	amounts related to the company's recently completed addition of an
13	Industrial and Commercial customer module for the CIS. Part of the
14	adjustment is required to reverse the inadvertent inclusion of the multi-
15	year project in plant prior to its completion date.
16	Column (n) adjusts the company's results of operations to include
17	the segment of Mist pipeline placed in service on December 1, 1999.
18	Column (o) adjusts O&M and rate base to include actual ordinary
19	claims for the test period as well as a three-year average of extraordinary
20	claims (claims potentially exceeding \$250,000). The use of the three-year
21	average is meant to mirror the treatment of normalizing uncollectible

1		expense. The adjustment also serves to eliminate accruals related to
2		environmental claims for this rate case.
3	Q.	What is the total effect of the above adjustments on the company's
4		actual results of operations for the test period?
5	A.	As shown on Page 1 of Revised Exhibit 6 (KSM-Exhibit), column (c)
6		represents the results of operations for the company once annualizing and
7		pro forma adjustments have been included. Line 16 of column (c) shows
8		that the company is earning an overall rate of return on rate base of 5.06
9		percent and line 17 details the corresponding return on equity of 2.27
10		percent.
11	Q.	Considering these results, what revenue increase is supported by
12		the company's cost of equity capital?
13	A.	The operating revenue increase required to allow the company its
14		appropriate rate of return on equity of 11.25% in Washington is
15		\$5,626,590, as shown in column (d) of Page 1. This amount, net of
16		income taxes and other revenue sensitive expenses, is added to the
17		company's adjusted results, resulting in column (e). Column (e)
18		represents the normalized and adjusted results for the company at the
19		proposed rates, with an achieved return on equity of 11.25%.
20	Q.	Does this conclude your testimony?
21	A.	Yes, it does.