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August 9, 2012

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
550 Capitol Street, NE, Suite 215
Post Office Box 2148
Salem, Oregon 97308-2148

Attention: Filing Center

Re: UG 221 – Surrebuttal Testimony
Application of NW Natural for a General Rate Revision

Enclosed please find an original and five (5) copies of Surrebuttal Testimony and supporting Exhibits of Northwest Natural Gas Company, dba NW Natural ("NW Natural" or "Company).

Please call me if you have questions.

Sincerely,

NW NATURAL

/s/ Mark R. Thompson

Mark R. Thompson
Manager, Rates & Regulatory Affairs

enclosures

CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing SURREBUTTAL TESTIMONY AND SUPPORTING EXHIBITS OF NW NATURAL in docket UG 221, upon each party listed in the Service List by electronic mail and, where paper service is not waived, by U.S. mail, postage prepaid.

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DATED at Portland, Oregon, this 9th day of August, 2012

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SURREBUTTAL TESTIMONY OF NW NATURAL

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of David Anderson

POLICY
EXHIBIT 2900

August 9, 2012

EXHIBIT 2900 – SURREBUTTAL TESTIMONY – POLICY

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NW NATURAL
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I. INTRODUCTION AND SUMMARY

Q. Are you the same David Anderson who filed direct testimony and reply testimony in this proceeding on behalf of Northwest Natural Gas Company ("NW Natural" or the "Company")?

A. Yes, as Exhibits NWN/200 and NWN/1800.

Q. What is the purpose of your surrebuttal testimony?

A. In this testimony I will:

- Update the Company's requested ROE in this case,
- Respond to statements from Commission Staff ("Staff") regarding the effect of "typical" adjustments on the Company;
- Respond to Citizens' Utility Board of Oregon's (CUB) statements regarding the Company's financial status and the implications for this rate case; and
- Provide a brief overview of NW Natural's surrebuttal testimony.

II. RETURN ON EQUITY

Q. Is the Company revising its requested return on common equity?

A. Yes, the Company is reducing its request from the 10.2% described in my reply testimony to 10.0%.

Q. Why is the Company decreasing its request?

A. The Company is revising its ROE recommendation in light of Dr. Hadaway's surrebuttal testimony and updated ROE analysis (NWN/3200 Hadaway). Despite the Company's position that the current unusual market conditions undermine the usefulness and accuracy of traditional ROE estimation models, the Company has modified its request down by 20 basis points in order to remain within Dr. Hadaway's DCF range, which has shifted downward since the time this case was filed. The 10.0% requested by the Company falls within the range described by Dr. Hadaway, and in my view appropriately reflects the risks the Company faces, as described in my previous testimony, and accurately represents the Company's cost of equity.

Q. Do you have any other points to make with respect to ROE?

A. Only that, as described in my reply testimony, our recommended ROE assumes that the Commission will not adopt the adjustments proposed by Staff and other parties that would be most damaging to the Company's financial well-being. If the Commission were to adopt such positions—for example, if the Commission were to adopt one of the parties proposals that the Company share environmental remediation costs with customers—then the Commission should grant the Company a higher ROE to account for the increased risk to which the Company would be subjected.

III. <u>EFFECT OF ADJUSTMENTS ON COMPANY</u>

Q. In its rebuttal testimony, how did Staff respond to your reply testimony about the financial effect on the Company that Staff's proposed adjustments would have, and the impact this would have on customers?

A. With respect to my reply testimony regarding the financial impact of the write-offs that would attend Staff's proposals, the likely downgrade of NW Natural's credit ratings, and the costs that such events would have on customers, Staff did not directly respond to these points. *See* NWN/1800 Anderson/8-14. Staff did briefly respond to my testimony regarding the effects on NW Natural of the "typical" adjustments that Staff and other parties have proposed in this case. Specifically, Staff did not dispute that many of the standard revenue requirement adjustments have a greater impact on a small stand-

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alone LDC like NW Natural than they may have when applied to other utility companies under the Commission's jurisdiction. However they did argue that the adjustments should be applied nevertheless because the proposed adjustments are "based on the same logic on which Commission precedent on these issues was set," and because Staff's view is that "[i]t is appropriate that certain expenses of public utilities should be shared between shareholders and ratepayers." Joint Staff/1700 Bahr-Wittekind/4.

Q. What is your response to Staff's statements?

A. NW Natural believes that it is important for the Commission to consider the impact that the "standard" adjustments to O&M have on a small stand-alone LDC. This effect is, of course, in addition to the financial impact of the major adjustments being proposed in this case (including the proposed adjustments to FTEs, the proposed sharing on environmental mitigation costs, the non-recovery of pension contributions, the payroll capitalization adjustment proposed by NWIGU-CUB, etc.).

IV. CUB'S COMMENTS ON NW NATURAL'S FINANCIAL STATUS

Q. What statements does CUB make regarding NW Natural's financial status?

A. CUB makes the assertion that NW Natural "chronically" over-earns, and implies that the Commission should consider this in setting rates in this case. *See,* CUB/200 Jenks-Feighner/3.

Q. What is your response to this argument?

A. CUB greatly overstates NW Natural's financial position. And, as CUB acknowledges, its argument is based upon the inclusion in past years of WACOG[1] gains that the Company received during years when gas prices fell below those that were embedded in the

1 Weighted Average Cost of Gas

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Company's annual Purchased Gas Adjustment (PGA). *See* CUB/200 Jenks-Feighner/4.

In my direct testimony, I showed the Company's historical earnings, and demonstrated that when these WACOG gains are not considered, the Company tends to earn less than its authorized rate of return. NWN/200 Anderson/16-18. CUB now implies that the Commission should in fact *count on* the Company to receive WACOG gains, and factor that in to NW Natural's rate request. CUB/200 Jenks-Feighner/4. In essence, CUB invites the Commission to reduce NW Natural's requested revenue requirement increase based on its assertion that NW Natural will continue to make the types of WACOG gains that attended dramatic historical price declines in natural gas.

The Commission should not adopt this approach because it is founded on unreasonable assumptions and would deny the Company an opportunity to have rates set at a level that allow it a chance to earn a reasonable rate of return. Additionally, it overlooks the fact that NW Natural's financial situation in the test year is what is at issue in this case—not the Company's past performance.

V. SUMMARY OF COMPANY'S SURREBUTTAL TESTIMONY

Q. Please describe the surrebuttal testimony the Company is filing.

A. Exhibit NWN/2900 is my policy testimony.

- **NWN/3000** contains testimony from Natasha Siores concerning decoupling, WARM, Staff's proposed adjustments to working gas inventory and state taxes.
- **NWN/3100** is testimony from Stephen Feltz, concerning the Company's cost of debt and pension cost recovery proposal.
- **NWN/3200** is testimony from Samuel Hadaway concerning ROE.

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- **NWN/3300** is testimony from Grant Yoshihara related to the Mid-Willamette Valley Feeder and the Company's System Integrity Program.
- **NWN/3400** is testimony from John Sohl regarding payroll capitalization and medical benefits.
- **NWN/3500** is testimony from Lea Anne Doolittle concerning the proposed adjustments to NW Natural's Full Time Employee (FTE) levels.
- **NWN/3600** is testimony from Russell Feingold concerning rate design and cost of service.
- **NWN/3700** is testimony from C. Alex Miller related to the Company's proposal for recovery of environmental remediation costs.
- **NWN/3800** is testimony from Keith White, addressing interstate storage and optimization.
- **NWN/3900** is testimony of David Williams concerning the Company's proposed service window appointments.
- **NWN/4000** is testimony of Onita King, relating to the proposed tariff changes in this case.
- **NWN/4100** is testimony from Andrew Middleton regarding historical manufactured gas plant operations.
- **NWN/4200** is brief policy testimony from Gregg Kantor regarding the Company's commitment to conservation.

Q. Does this conclude your surrebuttal testimony?

A. Yes.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Natasha Siores

DECOUPLING/WARM, WORKING GAS INVENTORY and STATE TAX EXHIBIT 3000

August 9, 2012

EXHIBIT 3000 – REPLY TESTIMONY – DECOUPLING/WARM, WORKING GAS INVENTORY AND STATE TAX

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I. INTRODUCTION AND SUMMARY

Q. Are you the same Natasha Siores who filed direct and reply testimony on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company") in this docket?

A. Yes. My Exhibits NWN/300-312, NWN/1200 and NWN/1900 support the Company's requested revenue requirement and rate adjustment mechanism revisions.

Q. What is the purpose of your surrebuttal testimony?

A. In my testimony, I respond to the rebuttal testimony of Commission Staff ("Staff"), the Citizens' Utility Board of Oregon (CUB) and the NW Energy Coalition ("Coalition") on the Company's decoupling mechanism; respond to Staff's and CUB's proposal to exclude working gas inventory from rate base; and respond to the adjustment to miscellaneous revenues related to deferred tax balances proposed by Staff and jointly by CUB and the Northwest Industrial Gas Users (NWIGU)

II. DECOUPLING

Q. What did the Coalition have to say about Staff's recommendations regarding Decoupling and WARM?

A. The Coalition's main points regarding Staff's proposed decoupling mechanism and WARM recommendation can be summarized as follows:

1. The existing mechanism works well[1] and functions as intended to:
    a. remove the throughput incentive,
    b. allow the Company full recovery of authorized fixed costs, and
    c. support substantial energy savings among natural gas customers in NW Natural's service territory.

1 Exhibit NW Energy Coalition/200 at Hirsh 4, line 25

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2. A use per customer decoupling mechanism like the one employed by NW Natural is preferable to a total use decoupling mechanism[2].
3. Staff's New Service Rate proposal is shortsighted in that it may lead to unacceptable and/or unintended results[3]. In addition, the New Service Rate adds a level of complexity to the mechanism that is not necessary.[4]
4. High decoupling deferral balances can be addressed by more frequent rate cases and the Coalition recommends the Company file a general rate case more frequently than every nine years but less frequently than every three years[5].
5. The Coalition supports Staff's recommendation to retain the opt-out provision of WARM.

Q. How do you respond?

A. The Company agrees with the Coalition's position that the existing decoupling mechanism has been functioning well and that Staff's proposed mechanism adds complexity that is not necessary. As indicated later in this testimony, the Company agrees that regular true-ups of decoupling components will likely prevent high decoupling deferral balances and are appropriate. However, the Company continues to support the removal of the WARM opt-out provision as described in my direct testimony.

Q. What did CUB include in their rebuttal testimony concerning decoupling?

A. CUB clarified that they had not yet weighed in on the Company's decoupling mechanism with proposed changes as purported in my reply testimony. CUB is willing to continue to support decoupling in this case if customers receive good efficiency programs in

2 Exhibit NW Energy Coalition/200 at Hirsh 4, line 8-20
3 Exhibit NW Energy Coalition/200 at Hirsh 5, line 4-18
4 Exhibit NW Energy Coalition/200 at Hirsh 4 - 5
5 Exhibit NW Energy Coalition/200 at Hirsh 5, line 20-27

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exchange. CUB goes on to say that while it finds some merit in Staff's new proposed mechanism, that mechanism does not remove the disincentive for the Company to invest in energy efficiency. CUB proposes that Staff's concern over new customers can be addressed by either removing new customers from the mechanism or requiring a true-up of use per customer, customer counts and fixed costs every 3-5 years via a rate case or by working on a methodology that would allow the mechanism components to be updated based on the Company's Results of Operations. Also, CUB agreed with Staff that the margin rate per therm used in the decoupling calculation only be updated during a rate case and not updated in the interim for capital tracking mechanisms.

Q. Do you agree with CUB?

A. The Company's mischaracterization of CUB's opening testimony was unintentional and we acknowledge that CUB did not intend to weigh in on these issues in opening testimony as they did in their reply testimony. The Company agrees that Staff's proposed decoupling mechanism does not remove the disincentive for the Company to invest in energy efficiency. The Company continues to believe that new customers should be included in the decoupling mechanism and can agree to support regular true-ups to decoupling components through rate case proceedings or another methodology. Such true-ups are appropriate and will serve to prevent high levels of deferral adjustments for customers. We continue to agree that the margin rate per therm used in the decoupling calculation should reflect the margin rates corresponding to the tariffs of the rate schedules that are decoupled. Doing so provides greater transparency of the components used in the decoupling calculation.

Q. What did Staff propose in their rebuttal testimony?

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A. Staff conceded there may well be difficulties in the Commission adopting their proposed decoupling mechanism, including the impact on energy efficiency funding and the fact that the Company's decoupling mechanism has not caused any major problems that clearly require correction[6].

At the same time, Staff recommended that if the current mechanism were adopted, a reduction of 5 basis points (bps) to the Company's ROE should be applied. This 5 bps represents Staff's assertion that the current mechanism would contribute an over-collection of the Company's storage and transmission costs[7]. Also, in the appendix to the rebuttal testimony, Staff provides a comprehensive analysis of the current and Staff's proposed decoupling mechanism, as well as thoughts on the LRIC study.

Q. Do you agree with Staff's recommendation regarding a 5 bps reduction to the Company's ROE?

A. No. The 5 bps reduction is premised on Staff's assumption that storage and transmission costs will be over-collected under the Company's decoupling mechanism. Staff's assumption is based on the simplified premise that storage and transmission costs vary with peak day requirements and therefore an expected percentage decline in peak day requirements implies an equal percentage decline in costs. Staff reasons that an expected decrease in volumes (as interpolated from the Company's IRP) should mean lower storage and transmission costs which the Company's decoupling mechanism would improperly restore. However, the test year forecast in this case has already reflected those IRP expectations in use-per-customer and customer growth and establishing the Company's storage and transmission costs in this case has been

6 Exhibit Staff/2200 at Storm 4-5.
7 Exhibit Staff/2200 at Storm 37.

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appropriately done, and unchallenged. Thus, it is not appropriate to forecast a change to those future amounts and attempt to effect a change in ROE to set rates today. Furthermore, it is important to re-emphasize that storage and transmission costs vary with peak day requirements, not volumes. Because changes in volumes do not necessarily mean changes in peak day requirements, it is inappropriate to assume that changes in volume result in changes in storage and transmission costs.

Q. Staff characterizes your use of the term "full fixed costs" to mean full LRIC. Is that characterization correct?

A. Only partially. As I stated in my reply testimony, LRIC is the appropriate measure of the incremental fixed cost associated with a new customer over the life of that investment. However Staff did not qualify that the context in which I used that term was in my assessment of Staff's proposed mechanism. Staff's mechanism uses LRIC (less distribution mains) to recover costs of new customers.

Q. Why is that an important qualification?

A. What is improper in Staff's mechanism is that it applies LRIC (less distribution mains) to recover costs of new customers over a shorter time period that is mismatched with the life for which LRIC is calculated. In the existing decoupling mechanism, fixed costs are recovered for new customers because the mechanism recovers the revenue requirement associated with a baseline use-per-customer for new customers[8]. In Staff's proposed mechanism, fixed costs are not recovered for new customers because the mechanism only recovers LRIC (less distribution mains) for new customers. This is a

8 More accurately, a portion of fixed costs (based on LRIC) are recovered for new customers because the mechanism recovers the revenue requirement (based on embedded costs) associated with baseline use for new customers.

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fundamental flaw of Staff's proposed mechanism regarding new customers. LRIC represents the levelized incremental cost of the additional customer over the full life of the investment. The underlying assets needed to add a customer have long lives of 39 to 60 years. Levelizing these costs results in a number that is far less than the revenue requirement of those assets in the year they are placed in service. This is because the revenue requirements of a fixed capital investment decline over time as the investment is depreciated. Revenue requirements are higher than LRIC in the near term and lower than LRIC in the out years of the asset's life. Please see Exhibit NWN/3601 Feingold that illustrates the differences between LRIC and first year cost of service by rate schedule.

Q. Is LRIC typically used as the proxy for the revenue requirement amount a utility is allowed to recover for incremental customers?

A. No. LRIC is not revenue requirement – it merely informs how revenue requirement might be allocated between customer classes. LRIC is used to help determine how one might allocate a utility's revenue requirement to customer classes and to design class rates into fixed and variable charges. Using LRIC as the amount a utility is allowed to recover to cover the full fixed costs in the short-term for new customers (with or without distribution mains) is the flaw in the proposed mechanism that I refer to above.

Q. How could this flaw be overcome?

In order for Staff's proposed mechanism regarding new customers to work as Staff asserts it does, where decoupling recovery for new customers would match the cost of adding new customers, the mechanism would have to calculate an updated revenue requirement of the costs of new customers every year and use these costs in the

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calculation of Staff's New Service Rate. These costs would need to be vintaged each year to account for the varying cost of adding new customers from year-to-year. This adds a great deal of complexity to replace a mechanism that has worked effectively (on a use per customer basis) since 2002.

Q. Staff asserts that it is very important to understand the impact of new customers on the Company's costs and the differences between the existing mechanism and Staff's proposed mechanism. Do you agree, and what are the differences between the mechanisms with regard to new customers?

A. Absolutely. My understanding of the differences between the two mechanisms was described above – the existing mechanism recovers revenue requirement of new customers, the proposed mechanism recovers LRIC (less distribution mains) for new customers, which is not comparable to revenue requirement and is not an appropriate use of LRIC. Further, there is no rationale for excluding main costs since those costs are incremental as well.

Q. What else is important to note about Staff's testimony on decoupling?

A. Staff's testimony does not address whether or not the disincentive to promote energy efficiency is removed under their proposed decoupling mechanism. CUB points out that their primary concern with Staff's proposal is that this disincentive is not removed.

In addition, it is reasonable to infer that Staff does not disagree that some decoupling mechanism continues to be appropriate and in fact has gone to great lengths to develop a wholly new decoupling mechanism. This proposed mechanism includes an additional calculation step and additional data development and management complexities.

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Since Staff appears to agree that a form of decoupling mechanism is appropriate and that the existing mechanism has not caused problems that clearly require correction, the most efficient solution is to continue with the Company's use- per-customer mechanism.

Q. What is your recommendation regarding decoupling and WARM?

A. I reiterate the recommendation that the existing decoupling mechanism, with the changes proposed in my direct testimony, be approved. Also, as discussed earlier in my testimony, I agree that regular true-ups to decoupling mechanism components is appropriate and will serve to prevent high levels of deferral adjustments for customers. With regard to WARM, I continue to recommend that the WARM elements be updated with the results of this case and that the opt-out provision be removed.

III. WORKING GAS INVENTORY INCLUDED IN RATE BASE

Q. Please summarize Staff's representation on rate base treatment of working gas inventory thus far.

A. In opening testimony, Staff stated that it was unusual for an LDC like NW Natural to include working gas inventory in rate base, and therefore the Company's working gas should be removed from rate base. Also in opening testimony, Staff asserted that including working gas inventory in rate base was bad regulatory policy.

In rebuttal testimony, Staff now concedes that rate base treatment of working gas inventory is common, and that states treat working gas inventory differently, as some allow inclusion of working gas inventory in rate base, while others allow recovery of carrying costs through annual PGA-like mechanisms and others allow no rate treatment at all.

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Q. How has working gas been treated in prior Oregon rate cases?

A. As stated in my reply testimony, in my experience, working gas inventory has been included in rate base for the LDCs in Oregon.

Q. What does Staff now recommend?

A. Staff still recommends removing working gas inventory from rate base. Further, Staff argues that carrying costs for working gas inventory should be recovered through the PGA, using “actual carrying costs” instead of the Company’s authorized ROE[9]. Staff states this proposed treatment is better regulatory policy because the Company would not recover carrying costs at its authorized ROE and would alleviate the Company over-collecting for inventories that are less than rate case levels.

Q. What are the problems you see with Staff’s recommendations?

A. First, including working gas inventory in rate base is consistent with decades of Oregon regulatory policy. There have been at least seven gas utility rate cases in Oregon in the last twenty years and the issue of including working gas inventory in rate base, to my knowledge, was never contested.

In addition, all of the Oregon LDCs (NW Natural, Cascade Natural Gas (“Cascade”) and Avista Corporation (“Avista”)), Staff, CUB and NWIGU participated in Docket UM 1286, in which all components of LDC gas portfolio guidelines, PGA calculations and filing requirements were covered over the course of several years. In fact, the guidelines are reviewed periodically and were last changed and acknowledged by the Commission in 2011. In that docket, the issue of working gas inventory being moved from rate base and into the PGA was never raised. In fact, moving the carrying

9 Exhibit Staff/1900 at Zimmerman/2

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costs from NW Natural's rate base in this case to the PGA filing would cause the PGA calculations for the Company to be different than those of Avista and Cascade - a result that flies in the face of the efforts in the UM 1286 docket for uniformity in PGA filings.

Second, Staff asserts that because working gas inventory would be reviewed annually in the PGA, the inventory would then become a short term asset[10]. Clearly this is not true. The fact that an asset is reviewed annually has no bearing whatsoever on whether that asset is short-term. Additionally, Staff mistakenly claims that the Company's proposed method assumes carrying costs are calculated by multiplying times authorized ROE (10.2% as filed in the Company's reply testimony), when in fact, any item in the Company's rate base actually calculates carrying costs at the Company's overall authorized rate of return (8.14% in reply testimony). Again, rate base treatment of working gas inventory at an LDC's authorized rate of return is the established regulatory policy in Oregon.

Third, Staff contends that the primary risk to ratepayers of including working gas inventory in rate base is that actual inventory levels may be different than the levels included in the Company's rate case[11]. It is true that any rate base item included in a utility's rate case will be different in future periods. However, neither Staff nor any party to this case has indicated that the working gas inventory level included in this rate case is not appropriate. Since the Company's last rate case, concluded in 2003, the Company's actual working gas inventory as compared to the rate case level was higher in every single year. This was during a time that saw gas prices both rise and fall.

10 Exhibit Staff/1900 at Zimmerman/2, lines15-17
11 Exhibit Staff/1900 at Zimmerman/3

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Fourth, I note that in their rebuttal testimony, Staff provided limited guidance on how this proposed calculation of carrying costs in the PGA would work – for example, how would the inventory balance be calculated, what is the appropriate cost allocation and rate design for these costs and most importantly, how would the carrying costs be calculated and at what rate. Anyone involved with the PGA process can attest that it is a complex and comprehensive endeavor performed in a tight timeframe; leaving the details of this methodology to be worked out during PGA time would be incredibly challenging.

Q. Did Staff provide additional information about how the carrying costs on working gas inventory might be included in the PGA, and if so what is their proposal?

A. Yes, we asked Staff for clarification on their proposal through data requests NWN-OPUC DR 74 and 75. Staff's proposal is that, working with NWN and other parties, <u>Staff</u> will update demand, weather and natural gas price forecasts to determine the reasonable volumes NWN needs to hold in inventory and the <u>mark-to-market average price for those volumes</u>. Total costs will be multiplied by NWN's current authorized rate of return to determine the carrying costs for the current PGA year[12]. Staff's entire response to these data requests is provided as Exhibit NWN/3001 Siores/1-2.

Q. What are your concerns regarding Staff's proposed calculations?

A. First, it would be highly problematic for Staff to become the entity that determines the reasonable level of volumes that the Company should hold in inventory, especially based on unspecified parameters of how demand, weather, and price forecasts will be

12 See Exhibit NWN/3001 Siores/1, Staff response to NWN request DR 74 (emphasis added)

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developed or how the term reasonable is defined. And, debating these issues year after year at each PGA is inefficient, and adds complexity to the PGA process.

Second, the notion of pricing these volumes at market instead of historical, book values ensures that customers will be charged carrying costs on inventory balances that will always be different than prices that were actually incurred.

Third, Staff has not suggested what the appropriate cost allocation or rate design of these carrying costs should be. Over and above the concern of how to calculate the carrying costs, there is the issue of who should pay those costs. Adding this argument to the PGA process adds even more complexity.

Fourth, Staff goes on to say that the Company's authorized rate of return will be used to calculate carrying costs so long as Staff's proposed volumes and prices of inventory levels are used. Said another way, authorized rate of return is only appropriate for calculating carrying costs if Staff determines the inventory level and price. The Company opposes such a unilateral approach to developing a carrying cost methodology.

Q. What is your recommendation?

A. I continue to recommend that Staff's proposal (also supported by CUB) to remove working gas inventory from rate base be rejected. Continuing to include working gas inventory in rate base is consistent with historical Oregon regulatory policy, maintains consistency of regulatory treatment among the LDCs in Oregon and prevents complex and time-consuming additions to the PGA process.

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<u>IV. AMORTIZATION OF DEFERRED TAX BALANCES RELATED TO A CHANGE IN THE STATE INCOME TAX RATE</u>

Q. Staff describes the Company's deferred tax balance as the cumulative result of timing differences between the taxes a utility has <u>collected</u> over time in rates and the amount of taxes the utility has <u>paid</u>[13]. Is this accurate?

A. No. Deferred tax balances represent the cumulative tax effect of the temporary differences between book income on the Company's books and the taxable income on the Company's tax return (book-tax difference). These temporary differences are timing differences – typically because an expense may be taken for tax purposes earlier than it may be recognized for book purpose. Eventually the same amount of expense will be recognized for book purposes, but the timing difference results in taxable income and tax payments that are lower than book amounts for early years and higher than book amounts in later years. Thus, deferred taxes represent future tax liabilities.

Q. Staff argues that the Company's proposal is an attempt to collect a tax expense that occurred between rate cases. Do you agree?

A. No. What we are proposing in this case is the recovery of the revaluation of the deferred tax balances. The revaluation was necessary because of the tax rate change. As I mentioned above, deferred tax balances reflect future tax liabilities. Further, the balance reflects future tax liabilities valued at the tax rate in effect when the income occurred, not at the tax rate in effect when the future taxes are expected to be paid. Accordingly, if the tax rate changes in between the time a book-tax difference is booked to deferred taxes

13 See Exhibit Staff/1800 at Garcia/12, lines 18-20, emphasis added

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and the time when taxes are paid, there will be a mismatch between taxes paid and the amount that was set aside on the books as a future tax payment.

Q. NWIGU-CUB continue to assert that the Company's proposal violates the rule against retroactive ratemaking because the event that triggered the change in deferred tax balances occurred in 2009. How do you respond?

A. I responded to this point in my reply testimony in greater detail than I will reiterate here. However, I reaffirm the point made in my reply testimony that because deferred tax balances reflect timing differences that will be settled out in *future* years, by their nature, these balances pertain to future expectations of taxes due. A revaluation of future expectations should not be considered a reach-back of past expense, as is the characterization of retroactive ratemaking.

Q. If, despite your testimony, the Commission were to find that retroactive ratemaking principles should prevent the Company from recovering its updated deferred tax balances, does the Company agree with the adjustment proposed by Staff and NWIGU-CUB?

A. No. Staff's and NWIGU-CUB's adjustment is much larger than any logical result that could flow from the application of retroactive ratemaking principles, even if the Commission were to agree with their argument that retroactive ratemaking would occur without an adjustment. This is because Staff and NWIGU-CUB propose that NW Natural be prevented from recovering *any* of the amounts that were added to NW Natural's deferred tax balance from the updating that was required after the Oregon state tax change. This would be an extreme and illogical result, given that the addition to NW

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Natural's deferred tax balance represented the sum of the incremental future tax payments over a large number of future years.

If, even despite NW Natural's testimony on this topic, the Commission were to find that it will apply retroactive ratemaking principles to prevent NW Natural's recovery of its updated deferred tax balance, then these principles could only serve to prevent recovery of the *change* to the updated deferred tax balance that occurred between the time NW Natural updated its deferred tax balance and the time it filed this rate case. To do otherwise would be to apply retroactive ratemaking principles to prevent NW Natural from updating its deferred tax balances *in this case*, on a *forward-looking* basis.

We have evaluated our deferred tax balance to try to isolate the changes that occurred between 2009 (when the update was made based on the tax change) and 2012 (when we filed this case) with respect to the assets for which these balances were updated in 2009. Our analysis shows that "reversals" (i.e. where book depreciation is greater than tax depreciation) that occurred during this time period for these assets were $530,350. In light of bonus depreciation and other upward drivers of deferred taxes, these reversals were, however, more than offset by additional deferred taxes that occurred during that time, such that there was no net decrease in deferred tax balances. This reinforces that retroactive ratemaking principles do not apply to these amounts, since the turnarounds of the timing differences that created the deferred taxes relate to, and will occur in the future.

Q. Both Staff and NWIGU-CUB seem to agree with the Company that the accounting entries to change the deferred tax balances to reflect the new state tax rate were

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appropriate under Generally Accepted Accounting Principles (GAAP). That supports the Company's position, correct?

A. Yes, the Company and Parties seem to agree on the application of GAAP. However, while Staff and NWIGU-CUB agree that we should book increases to our deferred tax balance due to the tax rate change, they recommend denial of any recovery of that increase simply because the Company did not file for a deferral.

Q. Why didn't the Company file for a deferral order?

A. As explained in my reply testimony, the Company does not believe that it was required to file for a deferral order in order to update its deferred tax balance, or to collect, through rates, tax expenses that would be appropriate in light of its appropriate deferred tax balance. The Company determined that it was appropriate to address this issue was when the Company filed its next rate case.

Q. In your reply testimony, you indicated that a stipulation adopted in Docket UG 55 provided that if the federal tax rate changed in the future, the Company may request (and OPUC Staff and other parties agree to support) appropriate rate increases or decreases to restore deferred tax balances to necessary levels. Is there anything different about the revaluation of deferred taxes due to a change in state tax rate that is different than a change in federal tax rate that would require different rate treatment?

A. No. It is my understanding that consistent rate treatment would be appropriate.

Q. Do you have an alternative proposal?

A. Yes. In light of the concerns of Staff and NWIGU-CUB, and as indicated in my reply testimony, the Company would be agreeable to extending the amortization period of the

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deferred tax balance change. This would have the effect of reducing the annual revenue impact associated with recovery of the deferred tax balance, but still allow the Company recovery of the appropriate balance over time.

Q. Does this conclude your testimony?

A. Yes.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Exhibits of Natasha Siores

DECOUPLING/WARM, WORKING GAS INVENTORY
and
STATE TAX
EXHIBIT 3001

August 9, 2012

EXHIBIT 3001 – DECOUPLING/WARM, WORKING GAS INVENTORY AND STATE TAX

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<u>NWN Request DR 74</u>:

74. Staff/1900, Zimmerman/2, lines 10-12. Please explain how Staff proposes to calculate the level of working gas inventory to be included in the PGA.

<u>OPUC Response NW DR 74</u>:

74. Beginning from the most current acknowledged IRP and working with NWN and the other parties, Staff will update demand, weather, and natural gas price forecasts to determine the reasonable volumes NWN needs to hold in inventory for the upcoming heating season and the mark-to-market average price for those volumes. Using this volumes and prices the total cost of the working inventory for the PGA-year will be calculated. This total cost will then be multiplied by the current Commission authorized rate of return for NWN to determine the carrying costs of the working gas inventory for the current PGA-year. This calculation will be repeated during each PGA-year review.

<u>NWN Request DR 75</u>:

75. Staff/1900, Zimmerman/4, line 14. By "carrying costs," does Staff mean NW Natural's authorized rate of return? If no, what level of carrying costs is Staff recommending?

<u>OPUC Response NW DR 75</u>:

75. So long as the volumes and cost of the working gas inventory for the PGA-year are calculated as described in response to NWN Request DR 74, the level of carrying costs for the PGA-year will be calculated as described in response to NWN Request DR 74.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Stephen P. Feltz

COST OF DEBT AND PENSIONS
EXHIBIT 3100

August 9, 2012

EXHIBIT 3100 – SURREBUTTAL – COST OF DEBT AND PENSIONS

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I. INTRODUCTION

Q. Are you the same Stephen Feltz who provided direct testimony and reply testimony on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company") in this proceeding?

A. Yes. My Exhibits NWN/400-411 Feltz and NWN/2000-2008 Feltz provided testimony on the Company's cost of capital and pensions.

Q. What is the purpose of your surrebuttal testimony?

A. I respond to the rebuttal testimony given by:

(1) Matt Muldoon on behalf of Commission Staff ("Staff") regarding the Company's cost of debt; and

(2) Nick Cimmiyoti on behalf of Staff and Hugh Larkin on behalf of Citizens' Utiity Board (CUB) and Northwest Industrial Gas Users (NWIGU) regarding the Company's proposal to recover pension contributions.

Q. Please provide a summary of your surrebuttal testimony.

A. In my surrebuttal testimony, I:

- Respond to Staff's new argument and proposal regarding the interest rate swap claiming that the Company should have performed further analysis and implemented additional mitigating terms;
- Explain why Staff's new arguments for keeping the current pension cost recovery mechanism ignores the Company's required accelerated out-of-pocket costs;

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- Address Mr. Larkin's claim that the Company's historical pension analysis is incomplete and also provide research to support that the Company under-recovered pension contributions prior to 2003; and
- Respond to Mr. Larkin's rebuttal to my reply testimony, which explained why recovery of pension costs does not constitute retroactive ratemaking.

II. COST OF DEBT

Q. Please describe Staff's recommendation with respect to the Company's cost of long-term debt.

A. Staff proposed a 6.022 percent cost of debt, which is a 0.243 basis point reduction to the Company's proposal stated in my reply testimony. The 6.022 percent is premised on disallowance of a portion of the interest rate hedge loss and also subject to change based on an update for the actual rate and costs of the Company's 2012 bond issuance.

Q. Do you agree with Staff's proposal?

A. Yes, with the exception of the disallowance of the hedge loss which I discuss below.

Q. Has Staff's position with regard to the interest rate hedge loss changed?

A. Mr. Muldoon continues to sponsor an adjustment based on the Company's interest rate hedge loss, although he revises his recommendation downward from $5.048 million to $2.248 million, to match a new argument.

Q. Please describe Staff's initial position and your reply testimony with respect to the Company's interest rate hedge loss.

A. In his opening testimony, Mr. Muldoon argued that the Company should share the loss on the interest rate hedge. He based this position on his belief that the Company was

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imprudent in failing to conduct an independent probabilistic analysis of the risks posed by the hedge.

In my reply testimony, I explained that the Company filed reports and supporting documentation as required, including documentation demonstrating the hedge transaction was prudent. Moreover, I explained that while the Company did not believe such an independent probabilistic analysis was required, such an analysis would also, if performed, have supported the Company's actions in engaging in the hedge. In support of this position, I presented the results of a Monte Carlo simulation that NW Natural performed, based upon information that would have been available to the Company at the time it entered into the hedge. The results of the Monte Carlo simulation demonstrated that with a 95 percent confidence level the results of the hedge would range between a maximum potential loss of $5.6 million or a maximum potential gain of $7.8 million. In assessing this outcome, it is important to note that any result, however, was expected to mitigate the interest rate volatility if the swap rate and debt issuance rates had remained correlated - a result that supports the Company's decision to enter into the hedge.

Q. What is Staff's response?

A. In its rebuttal testimony, Staff has now changed its position. Now that the Company has demonstrated that the results of a probabilistic analysis would have supported the Company's decision to enter into the hedge, Staff argues that "[i]n addition to analysis of

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the probability of most likely events, there is analysis of high-impact, low frequency (HILF) events".[1]

Q. **How does Mr. Muldoon define a HILF event?**

A. Mr. Muldoon defines a HILF event by example, citing "an activity [that] could bankrupt the Company, but a priori evidence is that this outcome happened once in every hundred times the Company entered into the activity."[2]

Q. How does Mr. Muldoon suggest the Company should respond to the risk of a HILF event?

A. Mr. Muldoon implies that when a probabilistic analysis identifies a low probability of an extremely negative outcome, it is incumbent on the Company to put protections into place to mitigate risks of the negative outcome.

Q. How does Mr. Muldoon apply this opinion to the interest rate swap entered into by NW Natural?

Applying this argument to the interest rate swap, Mr. Muldoon claims that:

a) The Company could have and should have performed its own scenario analysis of HILF outcomes;

b) The Company could have and should have negotiated contractual terms—such as termination clauses and "other provisions that allowed the Company to meet NW Natural's own standard of care"[3]; and

[1] Muldoon/9
[2] *Id.*
[3] Muldoon/12

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c) If the Commission does not require the Company to bear part of the loss, the Company may assume that customers will indemnify the Company for large preventable losses.

Q. Do you agree that Staff's proposal of a HILF assessment is appropriate?

A. No. By Staff's own definition, the risk the Company incurred by virtue of the hedge was not a HILF event. Staff defines a HILF event as one that might bankrupt the Company but has only a one percent chance of occurring. NW Natural would not dispute that a risk of that type would have been unacceptable. However, that is not the type of risk it did take. Again, using a Monte Carlo simulation, the analysis shows that there was a one percent chance that a loss greater than $7.5 million could have occurred. See NWN/3101 Feltz/1. Because the Company satisfies certain GAAP accounting requirements, any loss (or gain) would be recognized over the life of the debt. While a loss of that amount is substantial, it is nowhere near the type of event that would bankrupt the Company.

Q. Do you believe that the standard terms of the hedge transaction should have been modified to mitigate the risk that did exist?

A. Given the nature of the risk, there is no evidence to support Mr. Muldoon's claim that the Company could have or should have negotiated contract provisions that would mitigate them. The interest rate hedges that the Company was contemplating are standard contracts, with standard terms and conditions, and they were competitively bid to achieve the best price.

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In my experience, negotiating non-standard risk mitigation terms adds significantly to the cost of a hedge. Given the level of risk involved, at the time the hedge was entered, adding significant cost to the contract would not have been prudent. It is only with 20/20 hindsight that the Staff opines that such additional costs would seem worth incurring.

Q. Staff provides examples of "low-cost alternatives" that it believes the Company could have implemented.[4] Do you agree that these options were viable at the time?

A. No, I do not agree. Staff assumes that risk mitigation terms were available and provides three examples. These options were either not appropriate or viable at the time.

The first "alternative" Mr. Muldoon provides is to include provisions to terminate the hedge if a maximum loss was reached. This condition, however, would have essentially provided the potential counterparties with evidence about NW Natural's risk tolerance, which would have tainted their RFP responses, potentially to NW Natural's detriment. Giving away this information would not have been a prudent action.

The second option provided was to cap total losses. As explained in my reply testimony, NW Natural evaluates hedge risk in context of the larger picture of how hedge gains or losses will be offset by increased or decreased debt issuance costs. The Company considers hedge losses on a consolidated basis based on the likelihood that the debt will actually be issued, because if it is not, then any hedge losses would not be

[4] Muldoon/15

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economically offset. Given the projected need for capital, we fully believed that the debt would be issued.

The last suggestion was to negotiate a delayed start provision which would allow the Company to issue debt at a more advantageous time. This particular option, with a 12-month delay, was not readily available or priced competitively during the fall of 2007. The Company does, however, believe this is a viable option in today's current market environment.

Q. Please respond to Staff's final argument that if the Company is not required to share in the hedge loss that going forward the Company will expect customers to pay for any future preventable losses.

A. Staff suggests that if the Commission does not force shareholders to share in the hedge loss that the Company will simply assume that preventable losses will be borne by customers and therefore take imprudent risks. This suggestion incorrectly assumes that the Company's actions in entering into the hedge were imprudent, and that the losses could have been prudently prevented. However, Staff has failed to prove its case. And as a matter of policy, assuming that the Company did in fact act prudently in entering into the hedge, then the Company should be able to assume that the costs or benefits would be part of its cost of debt.

Q. Do Staff's arguments have any policy implications?

A. Absolutely. I understand that the Commission's prudence test is an objective one—based upon what the utility knew or should have known. As applied to hedging activities, the Commission has found that if the utility's hedging policy is sound, and if the

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utility executes its hedging policy in a prudent manner, then its actions are deemed to be prudent and even if the hedging activity results in a loss, it is appropriate that such loss be factored into the Company's costs.

In this case, the Company's decision to enter into an interest rate swap was specifically allowed by the Commission. As such, the only relevant question is per se one of prudence.

In negotiating the interest rate swap, the Company issued an RFP and reviewed 3 potential hedge products from three different banks, and selected the one that provided the best combination of risk and cost. The Company based its analysis on *verifiable* information provided by the banks and while it did not conduct an independent probabilistic analysis, it has provided proof that such an analysis would have confirmed that the hedge was prudent in any event.

In the face of this evidence, Staff argues that the Company now should find that the risk imposed by the hedge was unacceptable, and that NW Natural should have negotiated contract terms to mitigate these risks. And yet, as we have shown, the risk imposed by the hedge does not qualify as a HILF risk, and moreover, Staff provides no evidence that mitigation was possible at a reasonable cost.

In the end, it appears that Staff is arguing that the Commission should deny recovery for a utility action if (a) the activity was objectively prudent, but the utility did not perform an indepedent analysis that would have confirmed that its activity was objectively prudent, and (b) the activity was objectively prudent but resulted in a loss.

Q. What is your recommendation to the Commission?

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A. The Commission should reject both of these arguments.

III. PENSIONS

Q. Please summarize the parties' positions regarding NW Natural's pension contribution recovery proposal.

A. NW Natural has proposed to recover the future cost of its pre-paid pension asset resulting from pension contributions made in excess of FAS 87 expense. Specifically, NW Natural proposes to include the test year prepaid pension asset balance to rate base, and to recover the asset balance over a period of eight years. In support of its proposal, the Company has demonstrated that the amount it has invested in the prepaid pension asset in the form of excess contributions will be $39.2 million as of the test year, and that under the current FAS 87 balancing account, absent the proposed recovery, the Company is estimated to experience a loss of approximately $91 million in unrecovered pension contributions based on current actuarial projections of contributions and FAS 87 expense.

Both Staff and NWIGU-CUB oppose NW Natural's proposal. Both of these parties argue that the current FAS 87 balancing account treatment is the appropriate recovery mechanism and that no change needs to be made.

Q. Do Staff and NWIGU-CUB make any new arguments against the Company's pension proposal in their rebuttal testimony?

A. Yes. Staff makes some new arguments as to why FAS 87 provides a superior recovery mechanism than one based on actual contributions. And NWIGU-CUB witness Mr. Larkin makes two new arguments. First, he makes a new argument in an attempt to bolster his view that the Company's proposal constitutes retroactive ratemaking. And second, Mr.

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Larkin criticizes the Company's analysis because it is based on a view of the Company's recovery from 2003, and did not go all the way back to 1986 when FAS 87 was adopted.

Q. Please summarize Staff's new argument.

A. Staff witness Mr. Cimmiyoti suggests that the FAS 87 recovery method produces a more accurate estimate of the Company's current period pension expense in that it takes into account variables not considered in connection with a pension contribution recovery. Specifically, Mr. Cimmiyoti points out that FAS 87 takes into account gains and losses in plan assets which are then smoothed in net periodic pension costs (NPPC). In addition, Mr. Cimmiyoti points out the fact that NPPC reflects the fact that accruals will decrease given the fact that the plan is closed to new employees.

Q. What is your response?

A. I am not entirely certain I understand what Mr. CImmiyoti intends with this argument, but on its face, it is uncompelling. It is true that FAS 87 takes into account the variables that Mr. Cimmiyoti describes; however, FAS 87 does not account for either the carrying costs on contributions, nor does FAS 87 address the issue of unrecovered contributions, and thus is inadequate in NW Natural's case. Moreover, it is nonsensical to suggest that FAS 87 is superior to a recovery mechanism based, in part, on cash contributions because these same variables are taken into account in determining cash contributions, and one major difference is that funding laws require contributions to achieve 100 percent funding in seven years whereas FAS 87 does so over a longer time frame. To be clear, contributions reflect the *actual payments* made by the Company into the pension plan. Given these facts. It

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makes no sense to suggest that FAS 87 expense is a better reflection of the actual cost of a pension plan than the actual contributions and associated carrying costs.

Q. But what about Mr. Cimmiyoti's point that FAS 87 expense smooths unrealized gains and losses, thus reducing volatility. Doesn't that fact make FAS 87 a better recovery mechanism than one that directly recognizes cash contributions?

A. No it does not. I acknowledge that, in the past, FAS 87 smoothed pension expense over an appropriate period of time in relation to contribution requirements and, therefore, provided for a fair and appropriate recovery mechanism for pension contributions. However, as I have explained in my earlier testimony, the rules for determining how much plan sponsors are required to contribute each year were significantly changed when Congress passed the Pension Protection Act of 2006, which resulted in the need to make accelerated contributions. On the other hand, FAS 87 rules for determining how much was required to be recognized as expense did not change and as a result still amortizes gains and losses over longer periods of time than contributions, which creates the mismatch resulting in the problem NW Natural is now facing.

Q. Please summarize Mr. Larkin's claim that to fairly evaluate FAS 87 recovery the Company needs to review its pension contributions and recoveries going back to 1986—the year when FAS 87 was adopted.

A. Mr. Larkin finally appears to acknowledge that over the period covered by NW Natural's proposal—2003 to the present—the Company has significantly under-recovered pension costs. More importantly, he appears to implicitly accept the fact that it is at least "likely" that under the current framework the Company will continue to under-recover in the future,

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resulting in a permanent loss. However, he now suggests that this analysis is incomplete because the Company has "overlooked past comparisons of expense and contributions since the adoption of FAS 87."

Q. Do you agree with Mr. Larkin's criticism?

A. There is no merit at all to this argument. The Company selected 2003 as the "look back" period because that is the last time that the Commission set pension recovery for NW Natural. In NW Natural's view, recoveries prior to the last rate case are not particularly relevant. Moreover, the look back period is close to a decade, so the idea that the Company is "cherry picking" seems somewhat forced. That said, in order to respond to Mr. Larkin's criticism, we did perform research that allows us to now provide a rough estimate of expense recovery and a comparison to actual contributions all the way back to 1986.

Q. What did you find?

A. We found that since the adoption of FAS 87 in 1986 through 2003, the Company has under-recovered its pension contributions.

Q. Please explain.

A. The most complete and accurate data that we have available is for the rates in effect immediately prior to 2003, and so I will start there. The rate case immediately prior to our 2003 case was UG 132, filed in 1998. At the time, the Company's pension plans were overfunded, so the FAS 87 expense calculation was a negative number. Specifically, the FAS 87 expense amount included in rates was ***negative $546,000***. That means that for each of the five years those rates were in effect between 1998 and 2003, the Company refunded to customers more than half a million dollars. Keep in mind that during that same

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time period, while the Company was not required to make any contributions to its pension plans, it did not have the benefit of the overfunding—which of course is restricted for use by plan participants. So during that period of time the Company refunded to customers approximately $2.7 million and received no corresponding benefit.

Q. What information do you have about pension contributions and FAS 87 recovery from 1986 to 1998?

A. Our information prior to 1998 is less exact, because it is not completely clear from our records the total amount for pension expense that was included in rates. Notwithstanding that uncertainty, here is what we think, based on the records we do have:

- We filed a rate case in 1986—UG 38. UG 38 was actually filed prior to the time FAS 87 was adopted, and we believe the amount included in rates at that time would have been the same amount contributed for the test year. For this purpose, we assumed the amount included in customer rates for 1986 was the same as the amount contributed for that year, adjusted to reflect O&M (60%) and Oregon (90%) allocations. The assumed recovery amount was $326,000.
- The first rate case we filed after the adoption of FAS 87 was the 1987 rate case—UG 55. In that case it would appear that we included in our filed case an estimated $326,000 in O&M based on FAS 87 expense for the 1986 test year ($604,000 times 60% times 90%).
- In the 1989 rate case, UG 81, it would appear that we included about $3,000 in O&M based on FAS 87 expense for the 1988 test year ($6,000 times 60% times 90%).
- No general rate cases was filed by the Company in Oregon between 1989 and 1998.

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Q. What about contributions made during this same time period?

A. During that same overall time period, from 1986 through 1998, we made Oregon allocated contributions of $2.1 million ($3,877,000 times 60% times 90%).

Q. **Based on this historical research, what do you conclude regarding the comparison of pension contributions and FAS 87 expense from 1986 through 2003?**

A. The estimated O&M recovery amount in Oregon rates from 1986 through 2003 totaled $0.9 million based on above amounts, assuming one-half of the old rate plus one-half of the new rate was recovered during the year new rates went into effect. Over that same period of time we contributed $3.9 million to our pension funds overall, equaling $2.1 million on an Oregon allocated, O&M basis. That means we contributed $1.2 million more than we recovered in Oregon rates between 1986 and 2003.

Q. Please summarize the arguments that have been made regarding Staff's and NWIGU-CUB's claim that the Company's pension proposal would constitute retroactive ratemaking.

A. If you will recall, Staff and NWIGU-CUB have both taken the position that the Company's proposal constitutes retroactive ratemaking because the contributions at issue were made from 2003 to the present. In their opening testimony, Staff and NWIGU-CUB pointed out that the Company did not have a deferral in place, and therefore future recovery of those contributions is prohibited. In my reply testimony I explained that the pre-paid pension asset we seek to recover was not an expense but rather an investment made by shareholders on behalf of customers, and that the contributions are and will continue to provide benefits to

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our customers into the future. In that sense, the pension contributions are like plant investments and should be rolled into rates in each rate case.

In his rebuttal testimony, Mr. Larkin now takes issue with the analogy and argues that if these contributions were indeed like plant investments, the Company should have started to amortize the excess when it occurred—something which Mr. Larkin contends could not have happened given that "there is not a tangible asset to depreciate."

Q. Do you agree?

A. No, I do not. It is true that the prepaid pension asset itself is not a tangible asset to depreciate, and in that sense, the analogy to plant is not perfect. However, this fact does not suggest that the prepaid asset should not be added to rate base. As I have explained, the prepaid asset reflects cash contributions that shareholders were required to make on behalf of customers. I understand that the Commission has allowed other utilities to include prepaid assets to rate base—including prepaid insurance premiums. In short, there is clear precedent for allowing the Company to add the amount of its unrecovered pension contributions to rate base.

Q. Have there been any recent changes in pension laws that would change future contributions or FAS 87 expense?

A. Yes. On July 6, 2012 President Obama signed into law the Moving Ahead for Progress in the 21st Century Act (MAP-21 Act). This legislative change includes several provisions affecting pension plans, including temporary funding relief and PBGC premium increases, which reduces the required contributions in the near-term but increases operational costs of running a pension plan.

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Q. Can you provide more detail on the MAP-21 Act?

A. Yes. Plan sponsors currently use a 24-month average interest rate (also referred to as the "segment rate") to calculate pension liabilities and contribution requirements for funding purposes. The MAP-21 Act establishes a new minimum and maximum segment rate, i.e. a "corridor," to use in calculating those pension liabilities and contribution requirements. The corridor is based on a 25-year average of the segment rates. For 2012, the corriodor is set at 90% to 110% of the average interest rates over the last 25 years. In 2013, the corridor widens out to 85% to 115% of the 25 year average, and the corridor continues to widen by 5% per year thereafter until reaching 70% to 130%. Under current market conditions, the estimated segment rate to be used for funding purposes is expected to increase by more than 100 basis points for 2012 plan year. It's important to note that under MAP-21 Act the segment rate cannot drop below the low end of the corridor, so further decreases in market interest rates will not increase the liability that is used to calculate required contributions. The actual minimum segment rate for 2012 is not yet known because the IRS has not determined the 24-month segment rates for the last 25 years, but it is expected to be about 6.60%.

Q. Can you explain what impact the MAP-21 Act will have on the Company's contributions and FAS 87 expense?

A. It will not affect the current prepaid asset balance and to that extent our proposal does not change. However, it may affect contributions in the test year, the average amount of which is included in this case. If contributions in the test year are lower than projected, the Company will offset that amount with a reduction to the balancing account which will have

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the same impact on customers because balances in the balancing account accrue carrying costs at the Company's overall cost of capital.

It's important to understand that MAP-21 Act is a permanent change to the pension funding law, however increases in segment rates used to determine contribution requirements are only temporary and structured to have a greater impact over the next few years than long-term. In other words, the Company expects to contribute the same net present value amount over the next ten years using the same set of assumptions, but total contributions during this time would be higher because they are back-end loaded due to higher segment rates over the next few years. As to FAS 87 expense, there is no change in the methodology for calculating FAS 87, but FAS 87 expense would increase over the next ten years due to operational costs associated with higher PBGC premiums and due to reductions in investment income associated with lower contributions to plan assets in the early years.

Q. Please summarize the Company's position with respect to pension expense.

- Pension contributions are required by law.
- Rules for determining how much Plan Sponsors are required to contribute each year were significantly changed (i.e. significantly increased) when Congress passed the Pension Protection Act of 2006. On the other hand, rules for determining how much is required to be recognized as FAS 87 expense did not change and is still amortized over a longer period of time (between eleven and thirty years) than current contribution funding requirements which amortize contributions over seven years, thus creating a mismatch.

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- Ratepayers benefit from Company contributions because income is generated from plan assets, and investment income reduces FAS 87 expense each year. FAS 87 is currently the basis for setting rates and recording balancing account deferrals, and the more NW Natural contributes, the more FAS 87 expense is reduced and the more ratepayers benefit. So to deny NW Natural recovery of amounts when ratepayers benefit is inconsistent with fair and reasonable rate making.
- NW Natural's cumulative contributions significantly exceed FAS 87 expense up through the test year.
- Professional actuary projects that NW Natural contributions will continue to exceed FAS 87 expense each year for the next seven years, and therefore the benefit to customers, and the cost to the Company, will continue to grow.
- NW Natural should be allowed to earn a reasonable return on prudently invested capital. Capital invested in pension assets is prudent and similar to investment in utility plant assets.

Q. Does this conclude your testimony?

A. Yes.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Exhibits of Stephen P. Feltz

COST OF DEBT AND PENSIONS
EXHIBIT 3101

August 9, 2012

EXHIBIT 3101 – COST OF DEBT AND PENSIONS

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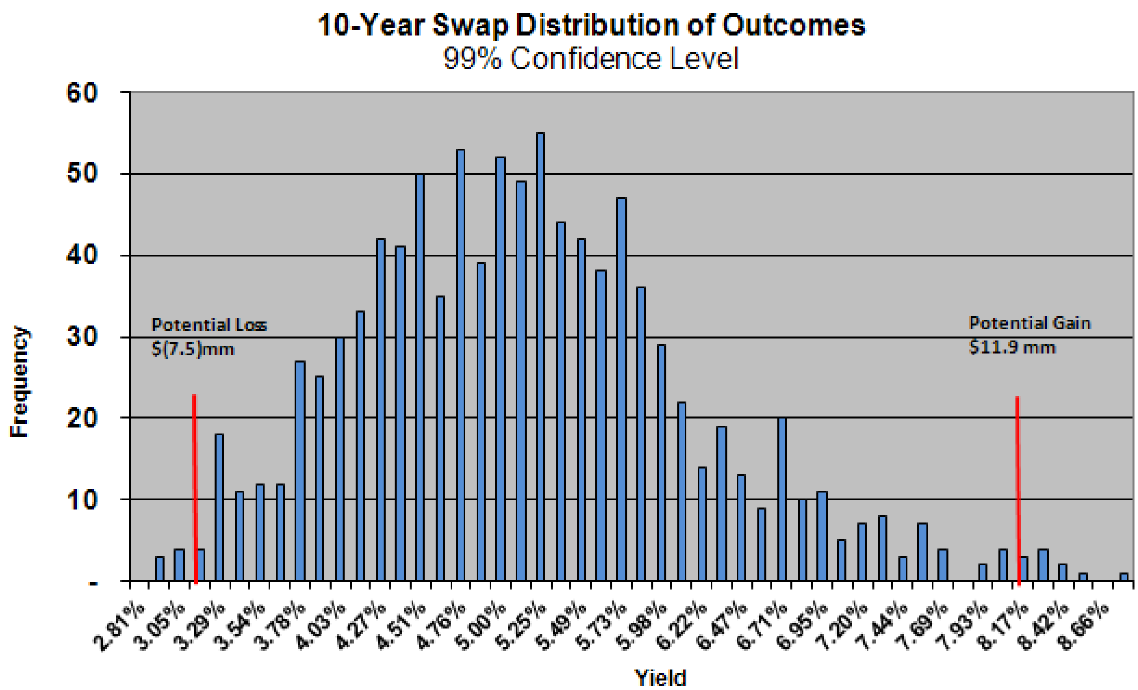

99% Confidence - Potential Loss					Potential Gain
99% Quantile		3.15%	1% Quantile		8.15%
Change in bps		(193)	Change in bps		307
DV01 - Bloomberg	$	38,930	DV01 - Bloomberg	$	38,930
Value-At-Risk	$	(7,516,440)	Value-At-Risk	$	11,937,515

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Samuel C. Hadaway

RATE OF RETURN ON EQUITY
EXHIBIT 3200

August 9, 2012

EXHIBIT 3200 – SURREBUTTAL TESTIMONY – RATE OF RETURN ON EQUITY

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I. INTRODUCTION

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

A. My name is Samuel C. Hadaway. I am a Principal in FINANCO, Inc., Financial Analysis Consultants, 3520 Executive Center Drive, Austin, Texas 78731.

Q. Are you the same Samuel C. Hadaway who filed direct testimony and reply testimony in this case on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company")?

A. Yes. I previously filed direct and rebuttal testimony supporting the Company's requested rate of return on equity (ROE) and responding to Commission Staff ("Staff") Witness Steve Storm's initial ROE recommendation - my Exhibits NWN/500-506 and NWN/2100-2107, respectively.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to Mr. Storm's rebuttal testimony and modified ROE recommendation filed July 20, 2012. In my analysis, I will show that in his updated ROE recommendation, Mr. Storm still does not reflect the ongoing risk that utility investors face. Mr. Storm continues to mechanically apply discounted cash flow (DCF) models which produce ROE estimates that are artificially depressed by the government's ongoing efforts to stimulate the economy. Mr. Storm also continues to use unreliable growth rate estimates in his DCF analysis.

As I discussed in my previous testimony, and is now even more so the case, the government's effort to hold long-term interest rates at artificially low, historically unprecedented levels has disrupted normal supply and demand relationships in U.S. capital markets. The traditional "yield-plus-growth" DCF format is simply not equipped to deal with these market conditions. For perspective, the closing yield on the 30-year U.S. Treasury Bond for July 25, 2012, at 2.46 percent, was the lowest close *ever* for the 30-year Treasury Bond, including during the deep financial crisis in 2008.[1] This result is driven directly by the Federal Reserve System's announced plan to keep interest rates at historically low levels through at least year-end.[2] Such efforts reflect serious economic problems, and they do not mitigate equity market risks.

In this environment, it is not appropriate for Mr. Storm to rely solely on traditional, technical ROE estimates for his recommendation. Such estimates significantly understate the cost of equity capital and should not be the basis for reducing NW Natural's requested ROE.

III. <u>REVIEW OF ROE RECOMMENDATIONS</u>

Q. What are the current Staff and Company ROE recommendations?

A. Mr. Storm has updated his ROE analysis and has increased his ROE recommendation from 9.2 percent to 9.4 percent. The Company originally requested an ROE of 10.3 percent and reduced its requested ROE to 10.2 percent in reply testimony.

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[1] During the worst of the financial crisis in December 2008, driven by the "flight to safety" market environment, the 30-year Treasury Bond yield declined to 2.69 percent.

[2] On June 20, 2012, the Fed announced that it is extending "Operation Twist" to the end of the year. In its review of that announcement, Bloomberg offered the following assessment: "The Federal Reserve will expand its Operation Twist program to extend the maturities of assets on its balance sheet and said it stands ready to take further action to put unemployed Americans back to work. The central bank will prolong the program through the end of the year, selling $267 billion of shorter-term securities and buying the same amount of longer-term debt in a bid to reduce borrowing costs and spur the economy." (Bloomberg.com, Fed Expands Operation Twist By $267 Billion Through 2012, Jun 20, 2012.)

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Q. Has the Company revised its ROE recommendation further based on your most recent updated analysis?

A. Yes. I have updated my analysis to the same time period as Mr. Storm (through June 2012). As explained by Company Chief Financial Officer, David Anderson (Exhibit NWN/2900), the Company has revised its requested ROE to 10.0 percent.

Q. Is this 10 percent revised ROE request supported by your updated analysis?

A. Yes. My DCF models currently indicate an ROE range of 9.4 percent to 10.1 percent.

Q. Mr. Storm alleges that NW Natural's ROE request relies upon an "outboard" adjustment of 20 to 60 basis points, unsupported by your DCF models. Please respond.

A. Mr. Storm is incorrect in implying that NW Natural's ROE recommendations in this case are unsupported by my quantitative analysis. NW Natural's original recommendation of 10.3 percent was within the range of my initial DCF analysis in this case. In my direct testimony, I explained why an ROE at the top of my range was appropriate given current market conditions and the Company's business risks outlined by Mr. Anderson.

In my reply testimony, I updated my analysis but continued to rely on my original analysis based upon the abnormal market conditions reflected in my update. Nevertheless, the Company recognized the results of my update by reducing its requested ROE to 10.2 percent.

My surrebuttal update produces only a slightly lower DCF range than my reply update. Given the results of my reply and surrebuttal updates, the Company has revised its request to 10.0 percent, which is within my updated DCF range that

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extends to 10.1 percent. The request is also supported by my alternative version of Mr. Storm's P/E Model, which produces a median ROE of 10.6 percent.[3]

Q. How do the parties' proposed ROEs compare to the rates of return recently allowed for other LDCS around the country?

A. The most recent quarterly average allowed ROE for natural gas local distribution companies (LDCs) was 9.8 percent. Mr. Storm relied heavily upon the average allowed ROE for LDCs from the 1st quarter, 9.6 percent, in his opening testimony. Mr. Storm's rebuttal testimony does not acknowledge the increase in average allowed LDC ROEs to 9.8 percent or the 6-month 2012 average of 9.75 percent, results that are closer to the Company's 10.0 percent requested ROE than to Mr. Storm's 9.4 percent recommendation.

In my Exhibit NWN/3201/1, I provide quarterly average ROE data for LDCs through the 2nd Quarter of 2012. These data show that there has not been one quarter in the past five years when average allowed ROEs have been nearly as low as Mr. Storm's recommendation. In fact, the average allowed ROE for LDC's in 2011 was 9.92 percent. The data further show that this is the lowest annual average allowed ROE that has been recorded.

IV. UPDATED COMPANY ROE ESTIMATES AND TECHNICAL SURREBUTTAL OF STAFF WITNESS STORM

Q. Have you updated your ROE analysis to take into account recent data and current conditions in the capital markets?

[3] In his direct and rebuttal testimony, Mr. Storm provides DCF models based on expected dividends and the expected selling price or "terminal value" that investors may expect to receive. In three of his models, the terminal values are estimated by multiplying projected earnings per share times the currently price-to-earnings (P/E) ratio—thus the short-hand name "P/E model."

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A. Yes. Consistent with my customary practice, I have updated my ROE analysis for current market conditions using the same three DCF methodologies that I employed in my previous analysis.

Q. What are the results of your updated DCF analyses?

A. My updated DCF results are shown in Exhibit NWN/3202. The indicated DCF range is 9.4 percent to 10.1 percent.

Q. Did Mr. Storm propose a number of methodological changes to his DCF models in testimony?

A. Yes. Mr. Storm proposes a number of material changes to his analyses.

Q. Do these changes propose a more balanced analysis?

A. No. While Mr. Storm has moderated his original 9.2 percent ROE recommendation to 9.4 percent, his analysis continues to rely upon a limited view of current market conditions. The best example of this is in Mr. Storm's "Multistage DCF 2" model, also referred to in his workpapers as the "Three-stage Discounted Dividend Model with Terminal Valuation based on P/E ratio" model (P/E Model). In Mr. Storm's opening testimony, this model was based on a 30-year analysis, to 2042. In his rebuttal testimony, he stretches the analysis out 10 more years, to 2052.

Q. Does changing the model from a 30-year model to a 40-year model change the outcome?

A. Yes, lengthening the model, as Mr. Storm did, lowers the results. This analysis is shown in Exhibit NWN/3203. As that exhibit shows, adding 10 more years to the analysis decreases the ROE results by about 10 basis points. For Staff's Peer Utilities, the group average ROE (adjusted for divergent capital structures) changes

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from 9.0 percent to 8.9 percent. For NW Natural's Peer Utilities, the average ROE changes from 8.8 percent to 8.7 percent.

Q. Have you developed an analysis that shortens the time-frame in the P/E model?

A. Yes. In my opinion, use of a shorter time horizon increases the accuracy of the analysis. I have developed a counter analysis which shortens the analysis, supplying 2016 as the final or terminal year in the P/E model.

Q. Please explain your alternative P/E model.

A. The results of this model are summarized in the last column of NWN/3202/1 and presented in more detail on page 5 of that exhibit. The approach used in this model is similar to my other DCF models in that the ROE is based on the relationship between the utility's current stock price and the future cash flows associated with that stock. In this case, the future cash flows consist of dividends for the period 2013 to 2015. In 2016, the final (or "terminal") cash flow is the sum of the dividend for that year plus the sales price of the stock. This 2016 price is calculated by multiplying the current P/E ratio (as determined by Value Line) by the estimated 2016 earnings per share value (also, as determined by Value Line).

Q. What does your alternative P/E model demonstrate?

A. This model produces a median ROE of 10.6 percent. The P/E version of the DCF model more accurately captures the cost of equity in current market conditions than traditional models because it directly reflects the "bid-up" utility stock prices that have resulted from the government's ongoing market intervention. In this sense, the P/E based DCF model serves to balance the lower results that come from the traditional "yield plus growth" DCF approach.

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While Mr. Storm's 40-year P/E approach pushes higher utility stock valuations so far out that they have little effect, the near-term P/E based model reflects current, relatively high utility stock valuations directly. Although any P/E based model may become volatile and produce a wide range of results, under current, abnormal market conditions, the near-term P/E model results should be considered as a balancing influence relative to the extremely low DCF results produced by traditional approaches.

Q. Are there any other changes to your updated DCF analysis?

A. Yes. Mr. Storm argues that NW Natural's ROE should be reduced by at least 5 basis points if the Commission adopts NW Natural's existing or proposed decoupling mechanism. In response, I have reduced the number of companies in my comparable group from 16 to 13. I have included in my new comparable group only those companies that have some form of decoupling or lost revenue mechanism in their rate structure. Because all of my comparable companies now have some form of decoupling mechanism (like NW Natural), it is inappropriate to adjust my ROE recommendation for any perceived reduction in risk due to such mechanisms. I eliminated Alliant Energy, Wisconsin Energy and Xcel Energy from my original comparable group.

Q. On page 8, at lines 4-7, Mr. Storm criticizes your risk premium analysis for containing "circular reasoning" and your DCF growth rates as "extremely high and 'rare'." How do you respond to these remarks?

A. Mr. Storm's remarks are off base. While my risk premium analysis uses allowed rates of return to estimate investors' expected risk premiums, that calculation is no more circular than using investors' expected growth rates to estimate investors' expected

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rates of return in the DCF model. In fact, over long periods of time like those used in my risk premium analysis (1980-2011), what better way is there for investors to estimate the likely allowed equity risk premium than to review what regulators have typically done? I know of no commission that would directly apply the rate of return allowed by another commission—that approach would be circular. But, contrary to Mr. Storm's remarks, that is not the approach used in my risk premium analysis.

Similarly, while in the past few years healthy GDP growth rates have indeed been "rare," it is not true that my 5.7 percent estimate for long-term GDP growth is "extremely high," relative to investors' longer-term experience. In fact, as I have consistently shown in my GDP growth estimates (Exhibits NWN/500 and NWN/2105), the current GDP forecasts from the various government agencies, which are repeated by economists included the Blue Chip Consensus, rely on government estimates of permanently low inflation rates and lower real growth than has heretofore been the case in the U.S. economy. For Mr. Storm to attach his whole analytical approach to such low GDP growth rate forecasts, which are the product of the most severe economic downturn since the Depression of the 1930s, can only produce abnormally low ROE estimates. Mr. Storm's efforts to lower NW Natural's requested ROE on this basis should be moderated and a more balanced approach should be applied.

Q. Also on page 8, at lines 9-15, Mr. Storm says that you make an "outboard" adjustment to the estimated ROE, which "…appears to stem from [your] belief that recent stock prices…do not reflect…the appropriate risk to investors." How do you respond to this statement?

A. As explained previously, there is nothing "outboard" about the Company's requested

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ROE relative to my analytical results. Mr. Storm does, however, correctly reflect my position on the current levels of utility stock prices and the abnormally low dividend yields that have resulted. For Mr. Storm to routinely run his DCF models, which are affected directly by these abnormally low dividend yields, without any consideration for the impact of the government's ongoing expansive monetary policy is shortsighted. The artificially low interest rates created by the government's efforts to stimulate the economy have left income-oriented investors with few choices. These investors, aggressively seeking dividend yield, may indeed have discounted the normal risks that utility investors face. This sentiment is echoed in Value Line's most recent review of Electric Utilities in the Western U.S.:

> With interest rates so low, many investors are interested in dividend-paying issues such as utilities. However, many electric utility stocks are priced within their 2015-2017 Target Price Ranges. This is often a sign that the industry has become overvalued. Thus, long-term investors should be cautious here. (Value Line, Electric Utility (West) Industry, August 3, 2012, p. 2237.)

While high utility stock prices and low dividend yields produce low ROE estimates in traditional DCF models, such analytical results should be evaluated within the market environment that exists. Mr. Storm's low cost of equity estimates and ROE recommendation should be modified toward a more balanced position.

Q. At page 9, lines 6-7, Mr. Storm says that, using his multistage DCF models, the difference between his 9.4 percent result and your 9.8-9.9 percent multistage result is "entirely due" to your 5.7 percent GDP growth rate estimate. Is this true?

A. While Mr. Storm's statement is technically true in terms of the math in our models, his sole focus on this difference is misplaced. For example, in his narrow discussion, he

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fails to report the similarity between my GDP growth rate forecast and the earnings growth forecasts reported in the Value Line data he uses in his DCF models. As shown in my updated Exhibit NWN/3202/2, the Value Line growth rate is 5.65 percent. In this context, had Mr. Storm simply extended the Value Line growth rate into the later years of his models, rather than replacing that rate with his lower GDP growth estimates, his results would have been more like mine than the 9.4 percent he recommends.

Q. Are there other reasons why Mr. Storm's sole focus on growth rates is misplaced?

A. Yes. By accepting current, historically low utility dividend yields (about 4.3-4.4%) without any consideration for the forces causing these low yields, Mr. Storm would mechanically and improperly reduce NW Natural's ROE. By channeling the debate solely toward growth rates, Mr. Storm would have the Commission effectively ignore all other factors.

If the Commission concludes that current utility dividend yields are artificially depressed by government monetary policy, then a more flexible view of growth rates would provide a reasonable balance. With a dividend yield of 4.4 percent, growth rates of 5.2 percent to 5.7 percent produce a DCF range of 9.6 percent to 10.1 percent (9.6% = 4.4% yield + 5.2% growth; 10.1% = 4.4% yield + 5.7% growth).[4] With the 5.43 percent growth rate used by Mr. Storm in his initial testimony, a dividend yield of 4.4 percent would provide an ROE estimate of 9.8 percent (9.83% =

[4] In his direct testimony, Mr. Strom used and appeared to primarily rely upon a long-term growth rate of 5.43 percent (Exhibit Staff/1300, Storm/64, Table 9). In his rebuttal testimony, Mr. Storm reduced that growth rate estimate to 5.14 percent (Exhibit Staff/2200, Storm/18, Table 3).

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4.4% yield + 5.43% growth). These examples illustrate the sensitivity of DCF results to dividend yield and growth rate levels. A more balanced approach toward growth rates shows that Mr. Storm's 9.4 percent ROE recommendation is unreasonably low.

Q. Does this conclude your testimony?

A. Yes.

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PUBLIC UTILITY COMMISSION OF OREGON

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NW Natural

Exhibits of Samuel C. Hadaway

RATE OF RETURN ON EQUITY
EXHIBITS 3201 - 3203

August 9, 2012

EXHIBITS 3201-3203 – RATE OF RETURN ON EQUITY

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Northwest Natural Gas Company
Authorized Gas Utility Equity Returns

Gas Utilities	2008	No.	2009	No.	2010	No.	2011	No.	2012	No.
Quarter 1	10.38%	(7)	10.24%	(4)	10.24%	(9)	10.10%	(5)	9.63%	(5)
Quarter 2	10.17%	(3)	10.11%	(8)	9.99%	(11)	9.88%	(5)	9.83%	(8)
Quarter 3	10.49%	(7)	9.88%	(2)	9.93%	(4)	9.65%	(2)		
Quarter 4	10.34%	(13)	10.27%	(15)	10.09%	(13)	9.88%	(4)		
Average Gas Utilities	10.37%	(30)	10.19%	(29)	10.08%	(37)	9.92%	(16)	9.75%	(13)

Data Sources:
Regulatory Focus , "Major Rate Case Decisions," Regulatory Research Associates, July 6, 2012; January 7, 2011; January 12, 2009.
Number of cases in parentheses.

Northwest Natural Gas Company
Gas Utility Cases (2012)

Gas Utility Cases

No	Date	Company	State	ROE
1	1/10/2012	Ameren Illinois	IL	9.06%
2	1/10/2012	North Shore Gas	IL	9.45%
3	1/10/2012	Peoples Gas Light & Coke	IL	9.45%
4	1/23/2012	Piedmont Natural Gas	TN	10.20%
5	1/31/2012	New Mexico Gas	NM	10.00%
6	4/24/2012	UNS Gas	AZ	9.75%
7	4/24/2012	Northern Utilities	NH	9.50%
8	5/7/2012	Puget Sound Energy	WA	9.80%
9	5/22/2012	SourceGas Distribution	NE	9.60%
10	5/24/2012	Minnesota Energy Resources	MN	9.70%
11	6/7/2012	Consumers Energy	MI	10.30%
12	6/15/2012	Wisconsin Power and Light	WI	10.40%
13	6/18/2012	Cheyenne Light, Fuel and Power	WI	9.60%
			Average	**9.75%**
			Median	**9.70%**
			Min	**9.06%**
			Max	**10.40%**

Summary of Results by Quarter

All Utilities					
By Quarter	1Q	2Q	3Q	4Q	**Total**
ROE	9.63%	9.83%			**9.75%**
No. Cases	5	8			**13**

Source: Regulatory Research Associates, "Major Rate Case Decisions," July 6, 2012.

Northwest Natural Gas Co.
Discounted Cash Flow Analysis
Summary Of DCF Model Results
(Decoupling Group)

Company	Constant Growth DCF Model Analysts' Growth Rates	Constant Growth DCF Model Long-Term GDP Growth	Low Near-Term Growth Two-Stage Growth DCF Model	Terminal Value Based on P/E Ratio DCF Model
1 Avista Corp.	9.4%	10.4%	10.3%	11.8%
2 Black Hills Corp	10.9%	10.3%	9.9%	12.8%
3 CMS Energy Corp.	10.7%	10.2%	10.1%	9.7%
4 Con. Edison	7.7%	9.8%	9.2%	7.0%
5 DTE Energy Co.	8.8%	10.1%	9.8%	10.6%
6 Integrys Energy	10.5%	10.7%	10.1%	~~14.0%~~
7 N.W. Nat'l Gas	8.2%	9.7%	9.3%	12.0%
8 NiSource Inc.	11.8%	9.6%	9.0%	10.4%
9 Piedmont Nat'l	8.0%	9.7%	9.4%	6.0%
10 Pepco Holdings	11.0%	11.6%	11.0%	~~13.1%~~
11 SCANA Corp.	8.7%	10.1%	9.7%	9.1%
12 Sempra Energy	10.0%	9.6%	9.4%	11.1%
13 Southwest Gas	8.9%	8.8%	8.9%	11.6%
GROUP AVERAGE	9.6%	10.0%	9.7%	10.2%
GROUP MEDIAN	9.4%	10.1%	9.7%	10.6%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), May 4, 2012; Natural Gas Utility, June 8, 2012.

The Market Price Model results for Integrys Energy and Pepco Holdings are considered outliers and are eliminated.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

Northwest Natural Gas Co.
Constant Growth DCF Model
Analysts' Growth Rates
(Decoupling Group)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Next		Analysts' Estimated Growth			Average	**ROE**
	Recent	Year's	Dividend	Value			Growth	K=Div Yld+G
Company	Price(P0)	Div(D1)	Yield	Line	Zacks	Thomson	*(Cols 4-6)*	*(Cols 3+7)*
1 Avista Corp.	25.89	1.22	4.71%	5.50%	4.70%	4.00%	4.73%	9.4%
2 Black Hills Corp	32.74	1.50	4.58%	7.00%	6.00%	6.00%	6.33%	10.9%
3 CMS Energy Corp.	22.82	1.02	4.47%	7.00%	5.60%	5.96%	6.19%	10.7%
4 Con. Edison	59.85	2.44	4.08%	4.00%	3.60%	3.15%	3.58%	7.7%
5 DTE Energy Co.	56.54	2.49	4.40%	4.00%	5.00%	4.30%	4.43%	8.8%
6 Integrys Energy	54.09	2.72	5.03%	7.00%	4.50%	5.00%	5.50%	10.5%
7 N.W. Nat'l Gas	45.93	1.82	3.96%	4.00%	4.30%	4.50%	4.27%	8.2%
8 NiSource Inc.	24.67	0.96	3.89%	8.00%	7.80%	8.00%	7.93%	11.8%
9 Piedmont Nat'l	30.50	1.23	4.03%	2.50%	4.80%	4.55%	3.95%	8.0%
10 Pepco Holdings	18.88	1.12	5.93%	7.00%	3.40%	4.85%	5.08%	11.0%
11 SCANA Corp.	46.10	2.02	4.38%	4.00%	4.50%	4.50%	4.33%	8.7%
12 Sempra Energy	64.37	2.50	3.88%	4.50%	6.80%	7.05%	6.12%	10.0%
13 Southwest Gas	42.14	1.30	3.09%	9.00%	4.30%	4.15%	5.82%	8.9%
GROUP AVERAGE	40.35	1.72	4.34%	5.65%	5.02%	5.08%	5.25%	9.6%
GROUP MEDIAN			4.38%					9.4%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), May 4, 2012; Natural Gas Utility, June 8, 2012.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

Northwest Natural Gas Co.
Constant Growth DCF Model
Long-Term GDP Growth
(Decoupling Group)

	Company	(9) Recent Price(P0)	(10) Next Year's Div(D1)	(11) Dividend Yield	(12) GDP Growth	(13) ROE K=Div Yld+G *(Cols 11+12)*
1	Avista Corp.	25.89	1.22	4.71%	5.70%	10.4%
2	Black Hills Corp	32.74	1.50	4.58%	5.70%	10.3%
3	CMS Energy Corp.	22.82	1.02	4.47%	5.70%	10.2%
4	Con. Edison	59.85	2.44	4.08%	5.70%	9.8%
5	DTE Energy Co.	56.54	2.49	4.40%	5.70%	10.1%
6	Integrys Energy	54.09	2.72	5.03%	5.70%	10.7%
7	N.W. Nat'l Gas	45.93	1.82	3.96%	5.70%	9.7%
8	NiSource Inc.	24.67	0.96	3.89%	5.70%	9.6%
9	Piedmont Nat'l	30.50	1.23	4.03%	5.70%	9.7%
10	Pepco Holdings	18.88	1.12	5.93%	5.70%	11.6%
11	SCANA Corp.	46.10	2.02	4.38%	5.70%	10.1%
12	Sempra Energy	64.37	2.50	3.88%	5.70%	9.6%
13	Southwest Gas	42.14	1.30	3.09%	5.70%	8.8%
	GROUP AVERAGE	40.35	1.72	4.34%	5.70%	10.0%
	GROUP MEDIAN			4.38%		10.1%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), May 4, 2012; Natural Gas Utility, June 8, 2012.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

Northwest Natural Gas Co.
Low Near-Term Growth
Two-Stage Growth DCF Model
(Decoupling Group)

	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
			Annual	CASH FLOWS							ROE=Internal
	2013	2016	Change	Recent	Year 1	Year 2	Year 3	Year 4	Year 5	Year 5-150	Rate of Return
Company	Div	Div	to 2016	Price	Div	Div	Div	Div	Div	Div Growth	*(Yrs 0-150)*
1 Avista Corp.	1.22	1.40	0.06	-25.89	1.22	1.28	1.34	1.40	1.48	5.70%	10.3%
2 Black Hills Corp	1.50	1.60	0.03	-32.74	1.50	1.53	1.57	1.60	1.69	5.70%	9.9%
3 CMS Energy Corp.	1.02	1.20	0.06	-22.82	1.02	1.08	1.14	1.20	1.27	5.70%	10.1%
4 Con. Edison	2.44	2.50	0.02	-59.85	2.44	2.46	2.48	2.50	2.64	5.70%	9.2%
5 DTE Energy Co.	2.49	2.75	0.09	-56.54	2.49	2.58	2.66	2.75	2.91	5.70%	9.8%
6 Integrys Energy	2.72	2.80	0.03	-54.09	2.72	2.75	2.77	2.80	2.96	5.70%	10.1%
7 N.W. Nat'l Gas	1.82	1.94	0.04	-45.93	1.82	1.86	1.90	1.94	2.05	5.70%	9.3%
8 NiSource Inc.	0.96	0.96	0.00	-24.67	0.96	0.96	0.96	0.96	1.01	5.70%	9.0%
9 Piedmont Nat'l	1.23	1.35	0.04	-30.50	1.23	1.27	1.31	1.35	1.43	5.70%	9.4%
10 Pepco Holdings	1.12	1.16	0.01	-18.88	1.12	1.13	1.15	1.16	1.23	5.70%	11.0%
11 SCANA Corp.	2.02	2.15	0.04	-46.10	2.02	2.06	2.11	2.15	2.27	5.70%	9.7%
12 Sempra Energy	2.50	2.80	0.10	-64.37	2.50	2.60	2.70	2.80	2.96	5.70%	9.4%
13 Southwest Gas	1.30	1.60	0.10	-42.14	1.30	1.40	1.50	1.60	1.69	5.70%	8.9%
GROUP AVERAGE											9.7%
GROUP MEDIAN											9.7%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), May 4, 2012;
Natural Gas Utility, June 8, 2012.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

Northwest Natural Gas Co.
Terminal Value Based on P/E Ratio
(Decoupling Group)

	Company	(25) Next Year's Div	(26) 2016 Div	(27) Annual Change to 2016	(28) Value Line P/E Ratio	(29) 2016 EPS	(30) 2016 Price	(31) CASH FLOWS Recent Price	(32) Year 1 Div	(33) Year 2 Div	(34) Year 3 Div	(35) Year 4 Div+Price	(36) ROE=Internal Rate of Return (Cols 21-25)
1	Avista Corp.	1.22	1.40	0.06	15.2	2.25	34.20	-25.89	1.22	1.28	1.34	35.60	11.8%
2	Black Hills Corp	1.50	1.60	0.03	18.2	2.50	45.50	-32.74	1.50	1.53	1.57	47.10	12.8%
3	CMS Energy Corp.	1.02	1.20	0.06	15.1	1.85	27.94	-22.82	1.02	1.08	1.14	29.14	9.7%
4	Con. Edison	2.44	2.50	0.02	15.9	4.25	67.58	-59.85	2.44	2.46	2.48	70.08	7.0%
5	DTE Energy Co.	2.49	2.75	0.09	16.1	4.50	72.45	-56.54	2.49	2.58	2.66	75.20	10.6%
6	Integrys Energy	~~2.72~~	~~2.80~~	~~0.03~~	~~18.3~~	~~4.25~~	~~77.78~~	~~-54.09~~	~~2.72~~	~~2.75~~	~~2.77~~	~~80.58~~	~~14.0%~~
7	N.W. Nat'l Gas	1.82	1.94	0.04	18.6	3.40	63.24	-45.93	1.82	1.86	1.90	65.18	12.0%
8	NiSource Inc.	0.96	0.96	0.00	17.4	1.85	32.19	-24.67	0.96	0.96	0.96	33.15	10.4%
9	Piedmont Nat'l	1.23	1.35	0.04	17.8	1.85	32.93	-30.50	1.23	1.27	1.31	34.28	6.0%
10	Pepco Holdings	~~1.12~~	~~1.16~~	~~0.01~~	~~14.9~~	~~1.70~~	~~25.33~~	~~-18.88~~	~~1.12~~	~~1.13~~	~~1.15~~	~~26.49~~	~~13.1%~~
11	SCANA Corp.	2.02	2.15	0.04	14.9	3.75	55.88	-46.10	2.02	2.06	2.11	58.03	9.1%
12	Sempra Energy	2.50	2.80	0.10	14.9	5.75	85.68	-64.37	2.50	2.60	2.70	88.48	11.1%
13	Southwest Gas	1.30	1.60	0.10	15.6	3.75	58.50	-42.14	1.30	1.40	1.50	60.10	11.6%
	GROUP AVERAGE	1.72	1.86	0.05	16.38	3.20	52.24	-40.35	1.72	1.77	1.81	54.11	10.2%
	GROUP MEDIAN				15.90								10.6%

Sources: Value Line Investment Survey, Electric Utility (East), May 25, 2012; (Central), Jun 22, 2012; (West), May 4, 2012; Natural Gas Utility, June 8, 2012.

The results for Integrys Energy and Pepco Holdings are considered outliers and are eliminated.

NOTE: SEE PAGE 6 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

Northwest Natural Gas Co.
Discounted Cash Flow Analysis
Column Descriptions
(Decoupling Group)

Column 1: Three-month Average Price per Share (Apr 2012-Jun 2012)

Column 2: Estimated 2013 Div per Share from Value Line

Column 3: Column 2 Divided by Column 1

Column 4: "Est'd '09-'11 to '15-'17" Earnings Growth Reported by Value Line

Column 5: "Next 5 Years" Company Growth Estimate as Reported by Zacks.com

Column 6: "Next 5 Years (per annum) Growth Estimate Reported by Thomson Financial Network (at Yahoo Finance)

Column 7: Average of Columns 4-6

Column 8: Column 3 Plus Column 7

Column 9: See Column 1

Column 10: See Column 2

Column 11: Column 10 Divided by Column 9

Column 12: Average of GDP Growth During the Last 10 year, 20 year, 30 year, 40 year, 50 year, and 60 year growth periods. See Exhibit NWN/2105

Column 13: Column 11 Plus Column 12

Column 14: Estimated 2013 Div per Share from Value Line

Column 15: Estimated 2016 Div per Share from Value Line

Column 16: (Column 15 Minus Column 14) Divided by Three

Column 17: See Column 1

Column 18: See Column 14

Column 19: Column 18 Plus Column 16

Column 20: Column 19 Plus Column 16

Column 21: Column 20 Plus Column 16

Column 22: Column 21 Increased by the Growth Rate Shown in Column 23

Column 23: See Column 12

Column 24: The Internal Rate of Return of the Cash Flows in Columns 17-22 along with the Dividends for the Years 6-150 Implied by the Growth Rates shown in Column 23

Column 25: See Column 14

Column 26: See Column 15

Column 27: (Column 26 Minus Column 25) Divided by Three

Column 28: "P/E RATIO" Reported by Value Line

Column 29: Estimated 2016 Earnings per Share from Value Line

Column 30: Column 28 multiplied by Column 29

Column 31: See Column 1

Column 32: See Column 25

Column 33: Column 32 plus Column 27

Column 34: Column 33 plus Column 27

Column 35: Column 34 plus Column 27 plus Column 30

Column 36: The Internal Rate of Return of the Cash Flows in Columns 31-35

Northwest Natural Gas Co.
Storm Three-stage DCF Model w/ Terminal Valuation based on P/E Ratio
Impact of Increase in Number of Years from 30 to 40

	30 Year Analysis			**40 Year Analysis**		
	Unadjusted ROE (IRR) (A)	ROE Capital Structure Adjustment[4] (O)	**ROE Adjusted for Divergent Capital Structures** (P)	Unadjusted ROE (IRR) (A)	ROE Capital Structure Adjustment[4] (O)	**ROE Adjusted for Divergent Capital Structures** (P)
Staff's Peer Utilities						
1 Laclede Group	8.4%	0.6%	**9.0%**	8.4%	0.6%	**9.0%**
2 Northwest Natural Gas	8.5%	0.3%	**8.8%**	8.4%	0.3%	**8.6%**
3 Piedmont Natural Gas	8.2%	0.5%	**8.6%**	8.2%	0.5%	**8.7%**
4 Questar	9.3%	0.1%	**9.4%**	9.1%	0.1%	**9.2%**
5 WGL Holdings	8.1%	0.9%	**9.0%**	8.1%	0.9%	**9.0%**
Group Average	8.5%	0.5%	**9.0%**	8.4%	0.5%	**8.9%**
Group Median	8.4%	0.5%	**9.0%**	8.4%	0.5%	**9.0%**
Northwest Natural's Peer Utilities						
1 Alliant Energy	9.0%	0.0%	**9.0%**	9.0%	0.0%	**9.0%**
2 Avista	9.4%	-0.1%	**9.3%**	9.4%	-0.1%	**9.3%**
3 Black Hills	8.7%	0.3%	**9.0%**	8.7%	0.3%	**8.9%**
4 CMS Energy	9.2%	-1.2%	**7.9%**	9.2%	-1.2%	**8.0%**
5 Consolidated Edison	7.8%	0.2%	**8.0%**	7.8%	0.2%	**8.0%**
6 DTE Energy	8.8%	0.1%	**8.9%**	8.8%	0.1%	**8.8%**
7 Integrys	9.0%	0.9%	**9.8%**	8.9%	0.9%	**9.8%**
8 NiSource	7.9%	-0.2%	**7.7%**	7.8%	-0.2%	**7.6%**
9 Northwest Natural Gas	8.5%	0.3%	**8.8%**	8.4%	0.3%	**8.6%**
10 Piedmont Natural Gas	8.2%	0.5%	**8.6%**	8.2%	0.5%	**8.7%**
11 Pepco Holdings	10.1%	0.1%	**10.1%**	9.9%	0.1%	**9.9%**
12 SCANA	8.4%	-0.3%	**8.1%**	8.4%	-0.3%	**8.1%**
13 Sempra Energy	8.8%	-0.1%	**8.8%**	8.6%	-0.1%	**8.5%**
14 Southwest Gas	8.5%	0.3%	**8.8%**	8.3%	0.3%	**8.6%**
15 Wisconsin Energy	9.1%	-0.2%	**8.9%**	9.2%	-0.2%	**9.0%**
16 Xcel Energy	9.2%	-0.2%	**9.0%**	9.1%	-0.2%	**8.9%**
Group Average	8.8%	0.0%	**8.8%**	8.7%	0.0%	**8.7%**
Group Median	8.8%	0.1%	**8.8%**	8.7%	0.1%	**8.7%**

Notes

1. 30 Year Analysis: See Backup1 & Backup2 tabs of this Exhibit.
2. 40 Year Analysis: See "Storm_2200_Workpapers_1-1a.xlsx"

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Grant Yoshihara

MID-WILLAMETTE VALLEY FEEDER - SYSTEM INTEGRITY PROGRAM

EXHIBIT 3300

August 9, 2012

EXHIBIT 3300 – SURREBUTTAL TESTIMONY – MID-WILLAMETTE VALLEY FEEDER - SYSTEM INTEGRITY PROGRAM

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NW NATURAL
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I. INTRODUCTION AND SUMMARY

Q. Are you the same Grant Yoshihara who provided direct and reply testimony on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company") in this proceeding?

A. Yes, I was the witness for Exhibits NWN/600 and NWN/2200.

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony responds to the proposals presented by Mr. Zimmerman on behalf of Commission Staff ("Staff") related to the Mid-Willamette Valley Feeder (MWVF) project and the System Integrity Program (SIP).

Q. Please provide a summary of your surrebuttal testimony.

A. In my testimony I:

- Explain that Mr. Zimmerman has not rebutted the evidence in my reply testimony demonstrating that it was prudent to develop the MWVF for reliability purposes; and
- Respond to Mr. Zimmerman's rebuttal testimony on SIP and respond to Staff's alternative positions for the program.

II. Mid-Willamette Valley Feeder

Q. What was your position regarding the MWVF in your reply testimony?

A. In my reply testimony, I continued to support the Company's proposal to include rate recovery for two of the four phases of the MWVF - the Perrydale-to-Monmouth and Monmouth Reinforcement phases.

Q. How did parties respond to your reply testimony?

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A. Staff was the only party to address my testimony. Mr. Zimmerman of Staff adopted Mr. Sobhy's opening testimony, which asserted that costs for the MWVF should be disallowed. In his rebuttal testimony, Mr. Zimmerman continues to recommend full disallowance of the costs of the MWVF.

Q. What was the basis of Mr. Zimmerman's recommendation for disallowance of the MWVF?

A. Mr. Zimmerman bases his recommendation on the following two claims:

1) The Company "fails to provide an explanation of why these two portions of the MWVF were not included in the recently acknowledged Modified IRP"[1], and
2) "NWN admits that the earliest date that the IRP would select the MWVF would be 2019 based upon reliability and 2025/2026 based on growth."[2]

Q. Do you agree with Mr. Zimmerman that the Company failed to explain why the MWVF was not included in the 2011 Modified IRP?

A. No, I do not. I assume that Mr. Zimmerman is referring to the fact that the MWVF was not selected in the Company's IRP Preferred Portfolio, because the pipeline was included in the modeling to reflect alternate options for storage gas delivery to various load centers. I addressed the limitations of modeling the MWVF for reliability purposes in the IRP at length in my reply testimony on pages 3 through 7. I explained that SENDOUT models the delivery of gas to the outer boundary of the Company's distribution system, and that SENDOUT does not model the sufficiency or reliability of the Company's distribution system. Mr. Zimmerman did not respond to my testimony on the nature of IRP modeling.

1 Exhibit 1900/Zimmerman, page 5, lines 9-10.
2 Staff Exhibit 1900/Zimmerman, Page 5, lines 2-4.

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I also explained in my reply testimony (pages 7 through 16) the needs met by the MWVF. Most importantly, the MWVF is needed to enhance the reliability of the Company's system south of Salem. I explained that this area is currently a single-feed system and is vulnerable to disruption. I also explained that 12 miles of pipeline in the MWVF alignment is being replaced as part of the bare steel program. The installation of the entire MWVF while replacing the bare steel segment at the same time is the most efficient way to maximize benefits and achieve all reasonable objectives at one time. I further explained that the MWVF also provides the benefit of bringing low-cost Mist and Newport liquefied natural gas storage gas to the southern region of the Company's service territory since Northwest Pipeline's Grants Pass Lateral is fully subscribed. Mr. Zimmerman did not respond to this testimony.

Q. Is Mr. Zimmerman's claim that NW Natural's IRP did not select the MWVF for reliability until 2019 or for growth until 2025/2026 relevant to the needs met by the MWVF outlined in your reply testimony?

A. No. Mr. Zimmerman fails to make the important distinction between distribution reliability and the reliability of supply transmission. As I explained in my testimony, the IRP does not model distribution reliability, so the distribution reliability need met by the MWVF is not modeled in the IRP. The IRP also does not model the other benefits I discussed in my reply testimony, including a means for delivering low-cost, on-system storage gas to customers in the region south of Salem and removing the bare steel in the MWVF's alignment.

Q. What about the fact that the IRP selected the MWVF for reliability in 2019? Doesn't that mean that even for reliability purposes it is not needed until then?

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A. No, it does not. As I explained in my reply testimony, the Company modeled five supply service disruptions staggered at two-year increments. Two of these scenarios included disruptions on the Grants Pass Lateral, both of which were arbitrarily modeled as occurring in the 2019 gas year. For both scenarios, the model results show that the MWVF needs to be in service prior to the modeled disruption if the Company is going to continue to serve customers' demand during a disruption. The Company could have modeled a service disruption in any gas year before or after 2019, and the model would have chosen the MWVF in the year of that disruption. Rather than undermining the Company's evidence that the MWVF is needed for reliability purposes, it actually supports the Company's position, because a service disruption on the Grants Pass Lateral could occur at any time. The results demonstrate the MWVF's ability to enhance reliability by providing an alternate supply route that utilizes existing on-system storage assets.

Q. In addition to ensuring system reliability in the event of a disruption on the Grants Pass Lateral, does the MWVF provide any other distribution reliability benefits?

A. Yes. Northwest Pipeline is located east of most of the Company's load centers in this area. The MWVF provides a way to deliver storage gas from the west side of these load centers, therefore increasing reliability and reducing the need to build reinforcements across highly populated areas to meet long-term future growth. It also improves reliability in the instance of a service disruption on one of the major distribution feeders to these areas that could occur downstream of the Northwest Pipeline gate stations.

Q. Did Staff address the reasons you put forward for needing the MWVF at this time?

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A. No. Mr. Zimmerman did not address the substance of my reply testimony, including the reasons why the MWVF is needed now rather than on the 2019 or 2025/2026 timeframe recommended by Staff.

Q. Does Staff disagree that reliability is a legitimate reason for adding a pipeline?

A. No. In fact, in Staff's opening testimony, Moshrek Sobhy responded to the question, "Are you opposed to improving system reliability?" by saying, "No. To the contrary, I fully support this objective."[3] Mr. Zimmerman did not rebut the evidence in my reply testimony that the MWVF is needed for reliability purposes.

Q. Did Staff offer any alternative position on the MWVF?

A. Yes, Staff said the Company could, "ask for inclusion of these projects at a later time when IRP results or quantitative analysis convince the Commission that the projects are needful and will be used and useful when placed into rates."[4]

Q. Do you agree with this alternative position?

A. No.

Q. Why not?

A. The Perrydale-to-Monmouth and Monmouth Reinforcement phases of the MWVF will be used and useful and providing benefits to customers on the rate effective date. The MWVF is needed now for reliability purposes, and the Company has already presented the evidence of this need to the Commission. There is no basis to wait to evaluate this evidence again at a later date.

Q. What is your recommendation regarding the MWVF?

3 Staff/Exhibit 1100, page 16, lines 12-14.
4 Staff Exhibit 1900/Zimmerman, page 6, lines 10-14.

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A. I continue to recommend that the Perrydale-to-Monmouth and the Monmouth Reinforcement Phases be included in rate base in this case. These two sections of the MWVF are necessary to enhance reliability to the region south of Salem and coupled with the need to replace existing bare steel along the MWVF alignment, allows the Company to bring low-cost Mist and Newport LNG storage gas to customers south of Salem during peak winter load conditions. The MWVF is necessary to meet these objectives.

III. System Integrity Program

Q. What was your position regarding the System Integrity Program (SIP) in your reply testimony?

A. I recommended that SIP related costs continue to have the same regulatory treatment as allowed today per Commission Order No. 09-067. The Company will continue to incur the cost of the first $3.25 million spent annually, and the recovery of additional costs will be subject to a soft cap of $26.3 million in 2013 and $12 million per year thereafter.

Q. How did parties respond to your reply testimony?

A. Mr. Zimmerman from Staff was the only party to address the Company's proposal regarding SIP. Mr. Zimmerman recommended that current balances for SIP be put into rate base and that the SIP program be discontinued.

Q. What was the basis of Mr. Zimmerman's recommendation for SIP?

A. Mr. Zimmerman said that he is concerned about several regulatory policy issues, namely that SIP does not allow for a holistic review of all expenses and revenues, and that safety projects could be addressed through rate cases or deferred accounting applications; costs tracked into rates annually should be subject to an earnings test; and that SIP reduces regulatory lag.

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Q. Do you agree with Mr. Zimmerman's assertion that it is inappropriate to review safety projects annually through a mechanism outside of a rate case?

A. No, I do not. As I explained in my reply testimony, the ability for Staff and the Commission to review and weigh in on the Company's pipeline safety efforts has been beneficial to the parties and customers. The Company currently provides the Commission two annual reports on SIP: one on forecasted spending and the other on actual spending. With the exception of the last two years, the Commission Staff has historically performed annual audits of the Company's safety programs, and has the right to do so at any time. The Company has annually provided Staff with a presentation on the program's activities including an overview of its completed work and forecasting upcoming projects for the program year. And finally, Staff is able to review costs annually when the Company files for their inclusion into rates. This extensive level of review would likely be more difficult in a rate case.

Q. Please respond to Mr. Zimmerman's implication that the fact that SIP reduces regulatory lag is a problem.

A. I note that while SIP reduces, but does not eliminate, regulatory lag, the program also benefits customers because it updates depreciation on SIP investments every year. Therefore, customers benefit from a declining rate base for prior SIP investments that otherwise would only occur in rate cases. SIP also provides for gradual annual rate adjustments as opposed to a single, larger rate adjustment. Finally, we don't agree that regulatory lag is a good thing when it comes to safety programs.

Q. Did Staff offer alternative options for SIP?

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A. Yes. Staff offered the following three options: 1) SIP could be continued for bare steel only; 2) SIP could have a sunset date of two or three years; or 3) the Company could absorb an additional $1.75 million annually to account for regulatory lag.

Q. Are any of these suggestions agreeable to the Company?

A. The first suggestion to reduce the program to bare steel is not necessary because the Company already has the Commission's approval to continue its bare steel program through 2021 or until completion of the bare steel removal.[5] The third suggestion is not appropriate because Mr. Zimmerman has presented no reason to increase the amount of regulatory lag already absorbed by the Company under the program.

With respect to Staff's proposal to sunset SIP in two or three years, the Company would agree to a review of the program in five years to determine if it is appropriate to continue the program. In five years (2017), the Company expects to be completed with its accelerated bare steel replacement program. Also, at this time currently-developing federal safety requirements should be more clearly defined. Absent additional regulatory or legislative changes, we should understand what ongoing pipeline safety compliance looks like at that time.

Q. What is your final recommendation for SIP?

A. My recommendation is to continue the SIP program as proposed in my direct testimony, with a $26.3 million dollar soft cap in 2013 and a $12 million soft cap thereafter. The treatment of SIP-related costs incurred annually after the first $3.25 million should continue to be tracked into rates at the time of the Purchased Gas Adjustment Filing.

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5 *See* Commission Order No. 01-843.

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This program should be subject to review or renewal at the end of 2017 with the original bare steel stipulation continuing as needed to complete the program.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of John Sohl

PAYROLL CAPITALIZATION AND MEDICAL BENEFITS
EXHIBIT 3400

August 9, 2012

EXHIBIT 3400 – SURREBUTTAL TESTIMONY – PAYROLL CAPITALIZATION AND MEDICAL BENEFITS

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I. INTRODUCTION AND SUMMARY

Q. Are you the same John Sohl who provided direct and reply testimony on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company") in this proceeding?

A. Yes, as Exhibits NWN/700 and NWN/2300.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to the adjustments proposed by Deborah Garcia on behalf of Commission Staff ("Staff") and Hugh Larkin Jr. on behalf the Citizens' Utility Board of Oregon (CUB) and the Northwest Industrial Gas Users (NWIGU) related to payroll expenses. Specifically, I address the parties' adjustments to the number of full-time employees (FTEs) and the O&M expense factor.

Q. Did your reply testimony address any payroll expense issues that are not addressed in this surrebuttal testimony?

A. Yes. In my reply testimony I also discussed medical benefits, workers' compensation, overtime, payroll tax, and depreciation expense. Based on Staff's and NWIGU-CUB's rebuttal testimony, I understand that these issues have been resolved because the parties agree on the methodology used to calculate these expenses, although they do not agree on the number of FTEs that should be used in the calculation.

Q. Do any other NW Natural witnesses address the appropriate FTE levels to include in the test year, which consists of the 12 months ending October 31, 2013 ("Test Year")?

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A. Yes. Lea Anne Doolittle discusses this issue in her surrebuttal testimony.[1]

Q. Please provide a summary of your surrebuttal testimony.

A. In my testimony, I:

- Summarize the status of the parties' FTE proposals and respond to Staff's rebuttal testimony on FTEs and Staff's wage and salary model; and
- Respond to Mr. Larkin's rebuttal testimony in support of NWIGU-CUB's proposed O&M expense factor adjustment.

II. FULL-TIME EMPLOYEES AND OVERALL PAYROLL

Q. Do the parties continue to have a difference of opinion on the appropriate number of Test Year FTEs?

A. Yes. Staff has updated their labor adjustment to reflect 1,020 regulated FTEs, which represents an increase from Staff's opening testimony proposal of 1,000 regulated FTEs. Staff's new FTE count is calculated beginning with the 1,006 average regulated FTEs from 2011 and adding 14 service window appointment (SWA) FTEs. Staff now agrees that 19.2 is the appropriate level of non-regulated FTEs that should be subtracted from total Company FTEs in order to arrive at regulated FTEs, rather than the 42.6 initially proposed by Staff. These non-regulated FTEs are not included in Staff's FTE level of 1,020. Staff calculates that the proposed change to FTEs would reduce the Company's proposed Oregon Test Year O&M by $4.4 million, and rate base by $1.8 million.

[1] Exhibit NWN/3500 Doolittle.

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NWIGU-CUB have remained at 1,071 total Company FTEs, which includes 13 SWA FTEs. NWIGU-CUB have not objected to the Company's calculation of 19.2 unregulated FTEs. Removing these FTEs yields a NWIGU-CUB regulated FTE count of 1052.[2] NWIGU-CUB calculates this FTE count would reduce the Company's proposed Oregon Test Year O&M by $2.7 million.

The Company continues to recommend, as set forth in the reply testimony of Lea Anne Doolittle, that revenue requirement be calculated based on 1,114 total Company FTEs, or 1,095 regulated FTEs.

Q. Staff has included 14 SWA FTEs in their calculation, while NWIGU-CUB has included 13. Which number is correct?

A. Staff's calculation of 14 SWA FTEs is correct. Lea Anne Doolittle explained in reply testimony that the correct number of SWA FTEs is 14. Staff has accepted this number, while Mr. Larkin states that he was not the witness who provided testimony on the SWA program, so he does not rebut the Company's testimony. No other NWIGU-CUB witness addresses this issue.

Q. In your discussion of the parties' FTE proposals above, you set forth the parties' regulated and unregulated FTE proposals. Why is that?

A. As discussed in Ms. Garcia's testimony, Staff felt that the Company's response to Staff's Standard Data Request No. 95 caused confusion on the issue of regulated vs. unregulated FTEs. The request asked for FTEs "on a total Company basis," so the

[2] I note that Mr. Larkin incorrectly states that 1040 FTEs existed as of March 31, 2012. NWIGU-CB/200, Larkin/17, lines 20-21. His previous testimony stated that the March 31, 2012 level was 1058. NWIGU-CUB/100, Larkin/43, lines 7-8. The 1040 level was as of December 31, 2011. NWIGU-CUB/100, Larkin/42, lines 13-14.

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Company provided the number of total FTEs, not only FTEs performing regulated work. In hindsight, the Company should have provided regulated FTEs only, but was attempting to be responsive to Staff's request for FTEs "on a total Company basis."

Q. Does Ms. Garcia criticize any other of the Company's data request responses?

A. Yes, although those criticisms are not material to the parties' FTE proposals at this point. Ms. Garcia notes an inconsistency between the Company's supplemental response to Staff Data Request 508 (Staff DR 508) and my reply testimony. I agree that the Company was in error in answering Staff DR 508, which requested the number of regulated Test Year FTEs. The response to Staff DR 508 did not adjust for the reduction in FTEs made in my reply testimony, which reduced FTEs by 11 FTEs for vacancies and 5 FTEs for which NW Natural is no longer seeking recovery. If this reduction had been reflected in Staff DR 508, the FTE count would have been 1,094.8, not the 1,110.8 included in that response. Staff also calculates 1,094.8 FTEs for the Test Year regulated FTEs proposed in my reply testimony, so the issue raised in Ms. Garcia's rebuttal testimony related to data request responses has been resolved.

Q. Does Staff continue to reflect an adjustment to payroll expense on the basis of Staff's three-year wage and salary model?

A. Yes. Although Staff has corrected the double count of payroll expenses that I described in my reply testimony, Staff continues to argue that Staff's wage and salary model should be applied, resulting in a relatively small adjustment of approximately $27,000.

Q. Please respond to Ms. Garcia's testimony on the application of Staff's wage and salary model.

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A. For the reasons explained in Ms. Doolittle's direct testimony, Staff's use of the Consumer Price Index in the model is not appropriate for calculating wages and salaries. In addition, as I explained in my reply testimony, Staff used the wrong union escalation factor. Staff responds to my testimony on this issue by asserting that Staff "accurately calculated the factor to capture the *actual* weighted increases for union employees", but Staff's calculations continue to contain arithmetic errors that have not been corrected.[3]

III. O&M EXPENSE FACTOR

Q. Do NWIGU-CUB continue to recommend an adjustment to the operations and maintenance (O&M) factor that the Company uses to calculate payroll expense?

A. Yes. NWIGU-CUB continue to recommend the use of the average of O&M expense from 2008-2010, 63.7%, rather than the Company's forecast O&M expense for the Test Year of 69.3%.

Q. What has Staff proposed with respect to the Company's O&M allocation factor?

A. Staff has not made a specific proposal or filed testimony on this issue, but has used the Company's forecasted Test Year O&M allocation factor of 69.3% when calculating payroll adjustments.

Q. Mr. Larkin argues that O&M expense can "realistically be expected to fluctuate from year to year," so an average is most appropriate for determining the level of expense in the Test Year. Do you agree?

[3] In Staff Exhibit 1801/1, Staff calculates a 34% wage increase over a three year period for Union. Staff should have used 3.25% for 2013 increases, however the equation is actually using a 32.5% increase. If this error was corrected the union pay increase over a three-year period would be 8.14%. NW Natural is unclear whether this correction impacts Staff's adjustments.

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A. I agree that the level of O&M expense can fluctuate from year-to-year. However, I do not agree that an average is the most appropriate way to calculate the O&M expense level where, as in NW Natural's case, the nature of the work performed by the Company's workforce is shifting.

Q. Please explain further.

A. Certainly. At the outset, it should be recognized that O&M expense is not a factor that is calculated and then applied to payroll; it is a number that results from the fact that some positions charge time to O&M, and some charge to capital projects. Thus, if the nature of the work done by the Company's employees changes, O&M expense changes. In such a case, it would be unreasonable to insist upon applying an historical average to calculate payroll O&M expense.

Q. Can you provide a simple example to illustrate this point?

A. Yes. Take the example of a company that employed one FTE who worked from 2008-2011 and was allocated 50% to O&M, and 50% to capital. If that company were to add one FTE for customer service in 2012, and that person's work was allocated 100% to O&M, the company's 2012 O&M allocation would be 75%. Under these circumstances, it would make no sense to insist that the company's O&M should be 50% based upon the historical average, when there is demonstrated change in the allocation for work performed by incremental employees. This is obviously a very simplistic example, but illustrates why it is necessary to account for the O&M composition of incremental FTEs rather than rely on an historical average.

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Q. Can you demonstrate that the incremental FTEs the Company has included in its filing have a higher overall O&M allocation than the 63.7% allocation level proposed by NWIGU-CUB?

A. Yes. Exhibit NWN/3401, Sohl/1 shows the 83 positions that the Company included as incremental FTEs in its direct case and the O&M allocation of these employees. As you can see, the O&M allocation of these employees is 88.3%, which is significantly higher than both the 2011 level of 67.2% and Mr. Larkin's proposed level of 63.7%. Layering these incremental FTEs on the 2011 actual O&M allocation would result in a Test Year O&M allocation of 68.7%. The Company provided parties with the O&M allocation percentage for these incremental employees, including service window employees, and no party has taken issue with those allocations.

Even ignoring the Company's proposed incremental FTEs and calculating the Test Year O&M allocation using 2011 actual FTEs and the 14 SWA FTEs that parties agree will be added in the Test Year, the Test Year O&M allocation is 67.6%, far above NWIGU-CUB's proposal. See Exhibit NWN/3401, Sohl/1.

Q. Does more recent actual information support the Company's argument that recent and expected FTE hires are increasing the O&M allocation percentage?

A. Yes. For the 12 months ended June 30, 2012, the O&M allocation was 68.3%. See Exhibit NWN/3402, Sohl/1. This indicates that the Company's Test Year O&M allocation of 69.3% is a much better estimate than NWIGU-CUB's proposal of 63.7%.

Q. Mr. Larkin presents Table 3 on page 21 of his rebuttal testimony, which he claims contradicts your testimony demonstrating that more capital main and service

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installation work has been conducted by contract labor than internal labor from 2009-2011, resulting in a lower proportion of internal labor being allocated to capital and, correspondingly, a higher proportion being allocated to O&M. Do you agree that Mr. Larkin's table undermines your point?

A. No, I do not. It is notable that Mr. Larkin's table includes all "Non-O&M Labor," which includes both utility capital and *non-utility* labor. The effect of removing non-utility labor is shown in Table 1 below. This table demonstrates that if non-utility labor was removed, the amount of Non-O&M labor in 2010 would be more in line with 2009.

Table 1

Year	Regulated Non-O&M Labor
2009	$ 25,968,181
2010	$ 26,530,628
2011	$ 25,201,863

Q. Does Mr. Larkin concede that your point that the majority of construction projects are being done through third-party contracts and would therefore have only an insignificant impact on O&M expense levels has merit?

A. Yes, he states that it would have merit if facts were presented to support this assertion. The attached Exhibit NWN/3403, Sohl/1 illustrates historical expenditures for mains and services for the years 2009 through 2011. This exhibit shows that the amount of contract labor increases from 29.7% of total spend in 2009 up to 34.2% in 2011.

Similarly, Exhibit NWN/3404, Sohl/1 illustrates NWN labor expenditures as a percentage of total capital. This exhibit shows that the labor percentage of total capital

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remains relatively constant over the period illustrated (averaging 46%) whereas contractor expenditures fluctuate up and down with the magnitude of the total capital spend.

As capital expenditures increase from $94 million in 2011 to a forecast total of about $150 million in 2012, the bulk of this increase is from projects that are being performed by third party contractors.

For example, the Company is retrofitting two existing service centers, constructing a training facility, and remodeling a building that will be used as an operations center. The planned expenditures for these projects total about $8 million. Approximately $6.4 million, or 80%, of these expenditures will go to outside contractors, a percentage that is significantly higher than the levels of 26.4% to 29.1% for the years 2009 through 2011. Similarly, the Company is building a pipeline from Perrydale to Monmouth at a forecast cost of $13 million. Approximately $8 million (62%) of this project's expenditures are being contracted to outside firms.

Additionally, the Monmouth reinforcement project has a total projected cost of $8.1 million. Approximately $5.01 million, or 62% of the costs for this project are contracted outside of the Company.

Q. In your reply testimony you noted that the NWIGU-CUB adjustment fails to add the labor disallowed in O&M to the capital side of labor and depreciating this capitalized labor, and that correcting this would add $4.4 million to rate base. Does Mr. Larkin respond to your point that his adjustment does not appropriately reallocate payroll from O&M to capital?

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A. Yes. He claims that that "the Company provided no analysis in its Reply Testimony that showed what payroll was included in the non-O&M category or a reconciliation of its payroll request that would justify including the $4.4 million in rate base." This statement is inconsistent with his opening testimony, where he states "Labor is allocated primarily to either capital projects or O&M. Because total payroll is comprised of these two categories, as the percentage of one goes up the percentage of the other must go down."[4] Based on Mr. Larkin's own testimony, if the percentage of labor allocated to O&M goes down, the percentage of labor allocated to capital should go up. By not accounting for this dynamic, Mr. Larkin's adjustment simply removes payroll expenses rather than allocating them to either O&M or capital.

Q. Mr. Larkin states that his adjustment will not prevent the Company from recovering its full Test Year labor costs. Is this accurate?

A. No. The Company has demonstrated that the O&M allocation in the Test Year will be significantly higher than that proposed by NWIGU-CUB because: (1) the incremental positions the Company has added and will be adding before and during the Test Year are more heavily weighted to O&M and therefore increase the overall O&M internal labor allocation; (2) the most recent actual data show that the O&M allocation in the past 12 months has been 68.3%, much higher than the allocation proposed by NWIGU-CUB and close to the Company's Test Year estimate; and (3) reductions to the capital allocation due to changes in third party contracts for capital projects means that relying on a past

[4] NWIGU-CUB/100, Larkin/45, lines 3-5.

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average is not reasonable. The Company has shown that it realistically expects to have 69.3% of its employee payroll charged to O&M in the Test Year.

Q. What would be the impact of Mr. Larkin's O&M allocation adjustment?

A. Reducing the O&M allocation will have the effect of disallowing payroll costs that the Company has shown that it will incur in the Test Year. This is the case regardless of the FTE level the Commission decides upon. The Company has shown that its O&M allocation estimate is most reflective of what the Company will experience in the Test Year under both the Company's and NWIGU-CUB's FTE proposals. Therefore, I urge the Commission to reject NWIGU-CUB's proposed adjustment.

Q. Does this conclude your testimony?

A. Yes, it does.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Exhibits of John Sohl

PAYROLL CAPITALIZATION AND MEDICAL BENEFITS EXHIBITS 3401-3404

August 9, 2012

EXHIBITS 3401-3404 - PAYROLL CAPITALIZATION AND MEDICAL BENEFITS

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FTE POSITION ASSUMPTIONS

POSITION TITLES	FTEs	GRADES	FTE WAGE	TOTAL WAGES	O&M %	CAPITAL %	O&M $	CAPITAL $	TOTAL
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	2.0	57	59,155	118,310	100%		118,310	-	118,310
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	22	100,227	100,227	80%	20%	80,182	20,045	100,227
[redacted]	1.0	18	65,228	65,228	100%		65,228	-	65,228
[redacted]	2.0	19	73,836	147,672	100%		147,672	-	147,672
[redacted]	4.0	18	65,228	260,912	65%	35%	169,593	91,319	260,912
[redacted]	1.0	47	41,933	41,933	100%		41,933	-	41,933
[redacted]	3.0	18	65,228	195,684	100%		195,684	-	195,684
[redacted]	1.0	17	59,006	59,006	100%		59,006	-	59,006
[redacted]	1.0	21	87,394	87,394	50%	50%	43,697	43,697	87,394
[redacted]	1.0	17	59,006	59,006	65%	35%	38,354	20,652	59,006
[redacted]	1.0	43	34,944	34,944	65%	35%	22,714	12,230	34,944
[redacted]	1.0	16	56,263	56,263	65%	35%	36,571	19,692	56,263
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	2.0	19	73,836	147,672	100%		147,672	-	147,672
[redacted]	1.0	21	87,394	87,394	100%		87,394	-	87,394
[redacted]	2.0	18	65,228	130,456	50%	50%	65,228	65,228	130,456
[redacted]	1.0	18	65,228	65,228	90%	10%	58,705	6,523	65,228
[redacted]	1.0	18	65,228	65,228	50%	50%	32,614	32,614	65,228
[redacted]	1.0	18	65,228	65,228	50%	50%	32,614	32,614	65,228
[redacted]	2.0	18	65,228	130,456	50%	50%	65,228	65,228	130,456
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	8.0	57	59,155	473,242	100%		473,242	-	473,242
[redacted]	1.0	20	82,243	82,243	100%		82,243	-	82,243
[redacted]	2.0	18	65,228	130,456	100%		130,456	-	130,456
[redacted]	7.0	57	59,155	414,086	100%		414,086	-	414,086
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	3.0	22	100,227	300,681	100%		300,681	-	300,681
[redacted]	1.0	16	56,263	56,263	100%		56,263	-	56,263
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	19	73,836	73,836	100%		73,836	-	73,836
[redacted]	1.0	21	87,394	87,394	100%		87,394	-	87,394
[redacted]	1.0	21	87,394	87,394	70%	30%	61,176	26,218	87,394
[redacted]	2.0	18	65,228	130,456		100%	-	130,456	130,456
[redacted]	1.0	18	65,228	65,228	100%		65,228	-	65,228
[redacted]	1.0	21	87,394	87,394		100%	-	87,394	87,394
INCREMENTAL POSITIONS	**69.0**		**2,955,760**	**4,719,110**			**4,065,199**	**653,911**	**4,719,110**

SERVICE WINDOW FTE ASSUMPTIONS

POSITION TITLES	FTE's	GRADES	UNLOADED ANNUAL PAY	TOTAL ANNUAL PAY	O&M %	CAPITAL %	O&M $	CAPITAL $	TOTAL
CFS CUST SERV TECH - PDX & VALLEY 4 HOUR	13.0	57	59,155	769,018	100%		769,018	-	769,018
CFS SUPERVISOR - 4 HOUR	1.0	20	82,243	82,243	100%		82,243	-	82,243
SERVICE WINDOW FTEs	**14.0**		**141,398**	**851,261**			**851,261**	**0**	**851,261**

TOTAL INCREMENTAL POSITIONS	**83.0**		**3,097,158**	**5,570,371**			**4,916,460**	**653,911**	**5,570,371**

INCREMENTAL FTE LABOR ALLOCATION **88.3%** **11.7%**

2011 ACTUAL ALLOCATION PLUS 14 SWA FTEs

	O&M	Capital	Other	Total
2011 ACTUAL ALLOCATIONS	$ 49,041,117	$ 22,021,573	$ 1,899,428	$ 72,962,118
	67.2%	**30.2%**	**2.6%**	
	O&M	**Capital**	**Other**	**Total**
SERVICE WINDOW FTEs FROM ABOVE	$ 851,261	$ -	$ -	$ 851,261
2011 ACTUAL PLUS SWA	$ 49,892,378	$ 22,021,573	$ 1,899,428	$ 73,813,379
	67.6%	**29.8%**	**2.6%**	

NORTHWEST NATURAL GAS COMPANY
PAYROLL ANALYSIS REPORT-Not Including Bonuses

Month	O&M		CAPITAL		OTHER		TOTAL
Jul-11	4,051,322	67.2%	1,827,719	30.3%	147,990	2.5%	6,027,031
Aug-11	3,968,106	66.3%	1,872,500	31.3%	141,209	2.4%	5,981,815
Sep-11	4,394,082	73.3%	1,440,828	24.0%	162,651	2.7%	5,997,561
Oct-11	4,498,664	69.1%	1,839,813	28.3%	173,395	2.7%	6,511,872
Nov-11	4,040,167	66.5%	1,853,104	30.5%	183,547	3.0%	6,076,818
Dec-11	4,337,118	68.5%	1,809,206	28.6%	185,743	2.9%	6,332,067
Jan-12	4,503,030	70.3%	1,749,857	27.3%	155,897	2.4%	6,408,784
Feb-12	4,210,461	67.5%	1,859,551	29.8%	168,276	2.7%	6,238,288
Mar-12	4,550,239	68.1%	1,945,334	29.1%	182,261	2.7%	6,677,834
Apr-12	4,371,235	69.4%	1,790,182	28.4%	138,267	2.2%	6,299,684
May-12	4,444,243	68.6%	1,867,687	28.8%	165,301	2.6%	6,477,231
Jun-12	4,161,546	65.3%	2,057,304	32.3%	158,650	2.5%	6,377,500
12 Month Average	51,530,213	68.3%	21,913,085	29.1%	1,963,187	2.6%	75,406,485

Mains & Services

	Actuals					
	2009		2010		2011	
	$	%	$	%	$	%
Total Mains & Services	15,967,760		16,381,030		20,223,913	
Contract Labor for Mains & Services	4,746,744	29.7%	4,894,992	29.9%	6,941,163	34.3%

Capital Breakdown (2009-2011)

	Actuals					
	2009		2010		2011	
	$	%	$	%	$	%
Total Capital	101,019,657		85,687,927		94,064,548	
Total Capital Labor	47,072,315	46.6%	40,621,869	47.4%	42,066,167	44.7%

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Lea Anne Doolittle

FULL-TIME EMPLOYEES
EXHIBIT 3500

August 9, 2012

EXHIBIT 3500 – SURREBUTTAL TESTIMONY – FULL-TIME EMPLOYEES

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I. INTRODUCTION AND SUMMARY

Q. Are you the same Lea Anne Doolittle who filed direct and reply testimony in this proceeding on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company")?

A. Yes, as Exhibits NWN/800 and NWN/2400.

Q. What is the purpose of your surrebuttal testimony?

A. I respond to the adjustments proposed by Deborah Garcia on behalf of Commission Staff ("Staff") and Hugh Larkin Jr. on behalf of the Citizen's Utility Board of Oregon (CUB) and the Northwest Industrial Gas Users (NWIGU) related to the level of full-time employees (FTEs) for which NW Natural seeks cost recovery.

Q. Do any other NW Natural witnesses respond to the parties' rebuttal testimony on FTEs?

A. Yes. John Sohl responds to Staff's testimony on FTE calculations.

Q. Please summarize your surrebuttal testimony.

A. In my surrebuttal testimony, I respond to Staff's and NWIGU-CUB's rebuttal testimony on FTEs and show that the evidence in the case supports the Company's proposed test year FTE level of 1,114.

II. FULL-TIME EMPLOYEES

Q. Do the parties continue to differ on the appropriate number of test year FTEs?

A. Yes. John Sohl outlines how Staff and NWIGU-CUB calculated their rebuttal testimony FTE counts, but the bottom line is that Staff's revised proposal is 1,020 regulated FTEs, or 1,039 total Company FTEs; and NWIGU-CUB's proposal remains 1,052 regulated FTEs, or 1,071 total Company FTEs. As Mr. Sohl explains, Staff's FTE count includes

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14 service window appointment (SWA) employees, while NWIGU-CUB's count includes 13 SWA employees.

Q. What is the Company's recommended FTE count?

A. The Company continues to recommend that revenue requirement be calculated based on 1,114 total Company FTEs, or 1,095 regulated FTEs, which includes the 14 SWA employees.

Q. Staff claims that it is difficult to justify the increase in FTEs over recent years and that it appears that NW Natural is increasing FTE levels in anticipation of the outcome of the rate case. Is this the case?

A. Absolutely not. As David Anderson explains in his direct testimony, the Company reduced FTEs between 2005 to 2010 as a result of specific initiatives, one of which was necessary to respond to the economic recession. However, over the past two years, given the increasing demands to enhance safety, compliance, and training functions, the Company has found it necessary to add positions in these areas.

Q. What has been the increase in FTEs over the past two years?

A. On July 31, 2010, the Company had on staff 994 total Company FTEs. As of July 31, 2012, this number had increased to 1,057 FTEs. Given that the increase in FTEs began at least 18 months before the Company filed this case, Staff's position that the Company was increasing FTE levels in anticipation of the rate case is baseless.

Q. Can you explain specifically what safety, compliance, and training needs contributed to this increase in FTEs?

A. Yes. First, as part of the development and implementation of an enhanced and integrated Field Operations Training and Quality Assurance (QA) function over the last

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three years, NW Natural has increased staffing levels in this area. These additional employees support a variety of initiatives, including:

- Development and implementation of a comprehensive, scenario-based emergency response training program for NW Natural employees to ensure highly skilled, proficient first responders focused on protecting life and property. These changes could not be implemented until after the 2009 union negotiation, when the Company had the first opportunity to negotiate broadened job descriptions for bargaining unit employees since the Operations Model;
- Enhanced training of public officials/emergency responders, including all fire departments in our service territory, to ensure effective and safe joint response to gas-related incidents;
- Improved initial and refresher training for all field operations employees to ensure ongoing maintenance and enhancement of employees' skill sets and additional training or qualification requirements arising out of legislation and/or industry best practices; and
- Implementation of a fully integrated quality assurance function for all Company field activities performed by employees and contractors to ensure compliance with federal and state codes/requirements, as well as NW Natural standards.

This resulted in an increase in the total number of trainers and quality assurance personal over a period of several years: three Trainers and three QA Inspectors in 2009; eight Trainers and three QA Inspectors in 2010; ten Trainers and five QA Inspectors in 2011; and twelve Trainers and six QA Inspectors in 2012.

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Second, we added additional personnel to ensure that the Company could effectively plan, schedule, and dispatch work after this work was centralized following the Operational Model review. Prior to the Operational Model, the Company had not implemented integrated long-term planning and scheduling. In addition, the increased number of emergency responders and the need to dispatch responders on a 24-hour, seven-day-a-week schedule required additional personnel. Since 2009 the Company has added ten additional FTEs to perform this work and expects to add three more in the near future.

Third, new regulatory requirements have required the Company to change its control room practices and increase personnel in the gas control environment. We have increased personnel on this team by adding two FTEs; one each year in 2010 and 2011.

Fourth, the Company realized that our time to respond to odor calls, meaning calls to the Company reporting the smell of gas, was not consistent with industry standards. See Exhibit NWN/3501. To address this concern, the Company established an emergency contact center (ECC) to respond to all emergency calls, including odor calls, 24 hours a day, seven days a week. The ECC was established and staffed in late 2011. The ECC was staffed from the existing customer contact center (CCC) and required an increase of five FTEs overall. Additionally, the Company identified a need for an additional 15 Customer Field Service (CFS) employees to directly respond to these odor calls. In January 2012, eight of these CFS FTEs started work. The remaining seven CFS FTEs will start on September 10, 2012 to complete the hiring and allow us to be aligned with industry standards.

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Fifth, new or increased enforcement of existing legislation by various agencies, including the Department of Transportation, Internal Revenue Service, Sarbanes Oxley, Dodd Frank, Jobs Creation Act, Pension Protection Act, and other laws has required the Company to add personnel to ensure that we are complying with regulatory requirements.

Sixth, the San Bruno explosion and similar events that were referenced in Grant Yoshihara's direct testimony have motivated the entire natural gas industry to increase the resources dedicated to constructing, operating, maintaining and inspecting the gas distribution system to ensure greater public safety. Exhibit NWN/3502 is the American Gas Association's recently released Commitment to Enhancing Safety, which provides further detail on industry efforts towards enhanced safety. As part of these efforts, Pacific Gas & Electric Company in California stated in its recent notice of intent to file a rate case that it has hired more than 300 new employees since January 2011 to implement its best practices safety plan, and expects to hire an additional 1,400 employees through 2014.[1] To further the Company's own commitment to ensuring public safety, the Company has added staff in engineering to support our Distribution and Integrity Management Program, to increase after-hours emergency response, and to enhance our code compliance personnel.

In sum, the Company began identifying additional necessary safety, compliance, and training needs, and has been steadily adding the positions needed to address those

[1] Pacific Gas & Elec. Co. 2014 General Rate Case, Cal. Pub. Util. Comm'n Case No. U 39 M, Notice of Intent, Exhibit (PG&E-3) at 1-33 (July 2, 2012).

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needs since approximately 2009. Staff's claim that NW Natural is increasing FTE levels in anticipation of the outcome of the rate case—and the implied suggestion that the new and planned hires are not needed by the Company to provide safe and reliable gas service—is not supported by the evidence and should be disregarded.

Q. Ms. Garcia states that the number of customers have been relatively flat, do you agree with this statement?

A. No. NW Natural's customers have increased by 14% (from 596,635 in 2004 to 679,879 as of July 31, 2012). David Anderson describes the efforts the Company took in the intervening years to prudently manage costs during this period of customer growth. Customer growth is one of many factors that affect the number of FTEs needed to operate the Company. Ms. Garcia's statement ignores the many other factors, such as those discussed in this testimony and my reply testimony, that also affect the number of FTEs needed.

Q. Staff also argues that the level of expense associated with a specific number of FTEs does not guarantee the utility will employ that number of FTEs. Please respond.

A. The Company agrees with Staff that customers should not pay for more FTEs than will be working during the test year. However, the Company does not agree with Staff that the Commission should assume that the Company will employ in the test year only the average number of employees it had in the base year.

First, Staff did not explain that the Company had a total of 1,009 employees on June 30, 2011 and this number had increased to 1,040 by December 31, 2011, therefore the average was not reflective of the absolute number employed. Even if this year-end

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number were reduced by the agreed to number of 19.2 unregulated FTE, the Company ended 2011 with 1,021 regulated employees.

Second, the evidence shows that the Company currently employs many more FTEs than Staff uses in its calculation. As of July 31, 2012, the Company had on staff 1,057 total FTEs or 1,038 regulated FTEs. Given current staffing levels, Staff's proposed FTE level of 1006 (excluding the 14 SWA positions) is unreasonably low, and Staff has not presented any evidence supporting the idea that the Company should be operating at a lower FTE level than it is now.

Third, as I explained in my reply testimony, the Company is currently well into the process of hiring for specific positions that are necessary to continue to operate the utility prudently and effectively. Some of these have already been added to staff, some have signed offer letters and are just waiting for their start date of employment, and still others are in the final stages of the selection process. Of those new positions reported in my reply testimony, 23 of them are new safety and compliance positions. Exhibit NWN/3503 lists each of these 23 positions, the description of the position, an explanation of why the position is necessary, and the specific regulatory requirement relevant to the position, if appropriate. This evidence shows that there is a demonstrated need for each of these positions that is tied to specific safety and compliance concerns.

Q. In response to the Company's explanation that increased safety standards are one driver of the increase in FTEs, Staff states that it is suspicious as to why the Company's proposed FTE level reflects only an 8% increase in its union force, while the increases for exempt and officer FTEs are higher. Is this a fair point?

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A. No, it is not. Many of the positions that were added to respond to safety needs are non-bargaining unit (NBU) positions, including Gas Controllers, Trainers, Engineers, Resource Management Center Supervisors who plan, schedule and dispatch work, and Quality Assurance Inspectors. The Company has also added BU personnel, including the employees needed in the customer contact center and customer field service as needed to respond to inside odor calls 24 hours a day and seven days a week.

Q. What is NWIGU-CUB's position on the appropriate number of FTEs?

A. NWIGU-CUB has remained at 1,058 total Company FTEs, equal to 1,039 regulated FTEs before allowing for the 13 FTEs for SWA.

Q. Does NWIGU-CUB represent a more reasonable starting point for calculating FTEs than Staff?

A. Yes. Although I do not agree with NWIGU-CUB's proposed FTE level for the reasons described below, the starting point for their calculation is more reasonable than Staff's because it is based on the Company's actual FTEs in place as of March 31, 2012. Unlike Staff's use of a past average that is not representative of current conditions or conditions expected in the test year, NWIGU-CUB's starting point at least represents actual and relatively recent conditions.

Q. Mr. Larkin claims that the Company is not likely to hire as many FTEs as it has projected. Do you agree?

A. No, I do not. The Company has been actively engaged in the recruiting and hiring process for the 53 positions (which includes the new 23 safety and compliance positions) that I discussed in my reply testimony. The following tables below show the most current status of the recruitment of these positions.

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Table 1: [2]

NEW POSITIONS - RECRUITING STATUS

PURPOSE	Planning	Posted/ Advertised	Screening/ Testing	Interviewing	Offer Accepted		Wait For Class	**Total**
					on board	8/12 start date		
Safety	3		1	10	3	1		**18**
Compliance			1	2	1	1		**5**
Other				3	1			**4**
TOTAL	**3**	**0**	**2**	**15**	**5**	**2**	**0**	**27**

BACKFILLS - RECRUITING STATUS

PURPOSE	Planning	Posted/ Advertised	Screening/ Testing	Interviewing	Offer Accepted		Wait For Class	**Total**
					on board	8/12 start date		
TOTAL	**5**	**2**	**0**	**2**	**14**	**1**	**2**	**26**

Of the 27 new positions, we now only have three in the planning phase (down from nine in June), there are two in the screening and testing phase, and fifteen in the interviewing stage. Of the fifteen FTEs in the interviewing phase, seven of them will be part of a Customer Field Service (CFS) training class that will be trained as emergency responders and to respond to inside odor calls to reduce the Company's response to odor calls to industry standard. This class will begin on September 10, 2012. In addition, seven FTEs have accepted an employment offer, of which several have started work and two have start dates later in August.

[2] This table shows the same new and backfill positions that were included in Table 1 in my reply testimony. Although five of the new positions and 14 of the backfill positions (19 total) have been filled since I filed my reply testimony, due to attrition in other positions, the FTE count has not increased by these 19 positions.

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As for backfill positions, five of these backfill positions will be included in the September 10, 2012 CFS training class that I discussed in the previous paragraph, and an additional twelve will be participating in another CFS class that is slated to start on October 14, 2012. Both the September and the October CFS classes will also be trained as emergency responders and to respond to odor calls. This results in a total of 24 FTEs who will be on board by the rate effective date through the two CFS classes.

Additionally, the Company will hire a Customer Call Center (CCC) class of 8 in October and expect to have signed offer letters by mid-October from new employees who will start work on October 29, 2012.

I emphasize that there is no question that all three of these classes will be in place before rates go into effect. In comparison with positions that require specialized skills like engineers and tax analysts, hiring employees to fill the CFS and CCC training classes does not present the same challenge, as we usually get hundreds of applicants and we have not had any problems finding qualified individuals for these positions. Therefore these classes are on track for the start dates listed above.

Q. Is the Company's proposed overall FTE level of 1,114 for the test year reasonable?

A. Yes. Neither Staff's nor NWIGU-CUB's proposals account for the vacant positions that the Company has demonstrated are necessary and will be filled in the test year. As I explain in my testimony, as of July 31, 2012, the Company had 1,057 FTEs on staff, the parties agree that SWA FTEs should be included in the test year and the correct number of SWA positions is 14, the Company will have 32 FTEs in place through training classes by the rate effective date, and is on track to fill an additional 11 positions before the rate effective date, for a total of 1,100 before the 14 SWA positions are added.

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Q. Does this conclude your testimony?

A. Yes.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Exhibits of Lea Anne Doolittle

FULL-TIME EMPLOYEES
EXHIBITS 3501-3503

August 9, 2012

EXHIBITS 3501-3503 – FULL-TIME EMPLOYEES

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American Gas Association

AGA Distribution Best Practices Executive Report

Benchmarking Topic: ***Emergency Response*** *for 2007 data, sent out by AGA to participating companies in March 2008.*

Introduction

The purpose of this report is to provide some general analysis for the data collected for **Emergency Response**. The activity being measured is the time frame from the inception of the customer call until the first responder arrives. We are not measuring the time required to make the repair or make safe.

This report is not intended to compare any one company's performance against another. It is meant to be an informal resource and guide for AGA members who would like to better understand how to interpret the benchmarking data. Companies are encouraged to conduct their own review of the data, and perform their own analyses on where their performance stands with respect to their peers.

Finally, readers should understand that AGA is not in a position to ensure the complete accuracy of the data submitted by member companies.

Analysis and Discussion

What are the factors that contribute to the efficient and prompt activities associated with an Emergency Response? The main activities in emergency responses are as follows:

- Receiving the call – Call Center Activity
- Dispatching the proper crew – Dispatch Center Activity
- Field Crew Response – Field Center Activity
- Direct Supervision

Under the Best Practices program, the member companies identified 5 performance measures for review:

- Average response time per emergency call
- Percent of Response Times within 60 minutes
- Total cost per emergency call
- Total cost per metered customer

AGA has created 4 graphs and 2 scatter plots that depict the range of company performance for this topic. These graphs are included in the appendix of this report. Please note additional measures and company comparisons are available through the AGA "BESS" (Best Practices Electronic Survey System) or in analyzing the raw data that is sent to each participating company.

1. Average Response Time per Emergency Call
Mean =33.1 minutes
Median = 33.0 minutes
1st Quartile = 26 minutes
3rd Quartile = 37.8 minutes

From our analysis, the majority of the companies experienced 33 minutes to respond to an emergency call. We did however see one anomaly where the average response time per emergency call was over an hour. Some factors that could have caused this may be the company's location: urban vs. rural or the no. of service calls per days received.

2. Percent of Response Times within 60 minutes
Mean = 91%
Median = 97%
1st Quartile = 100%
3rd Quartile = 97%

It can be seen from Graph 2 that the percent of response time within 60 minutes for most companies averaged above 90%. This indicates that most companies Call Center, Dispatch Center and Field Crew Response teams work efficiently to respond to customer calls.

3. Total Cost per Emergency Call
Mean = $84.78
Median = $64.52
1st Quartile = $38.74
3rd Quartile = $110.64

From Graph 3, the average cost per emergency call to companies was approx. $85, where the minimum to maximum cost ranged from approximately $5.00 to $308.00. Additionally, the median cost per emergency call increased from around $40 to $65 between 2004 and 2007. This rise in cost could be contributed by labor cost, emergency equipment and transportation.

4. Total Cost per Metered Customer
Mean = $3.38
Median = $2.56
1st Quartile = $1.48
3rd Quartile = $4.62

From Graph 4, we can see the average cost per metered customer is just above $3.00, however the median cost increased between 2004 and 2007 was not a significant one, rising from approximately $2.00 to $2.50.

5. Average Response Time per Emergency Call vs. Total Cost per Emergency Call

This scatter plot shows that most companies were in the lower left and lower right quadrants where the total cost per emergency call was less than $63.25 and in the upper and lower left quadrants where the average response time per emergency call was under 30 minutes. We can deduce that companies in the lower left quadrant were the top performers and executed efficient emergency response procedures.

6. Average Response Time per Emergency Call vs. Total Cost per Metered Customer

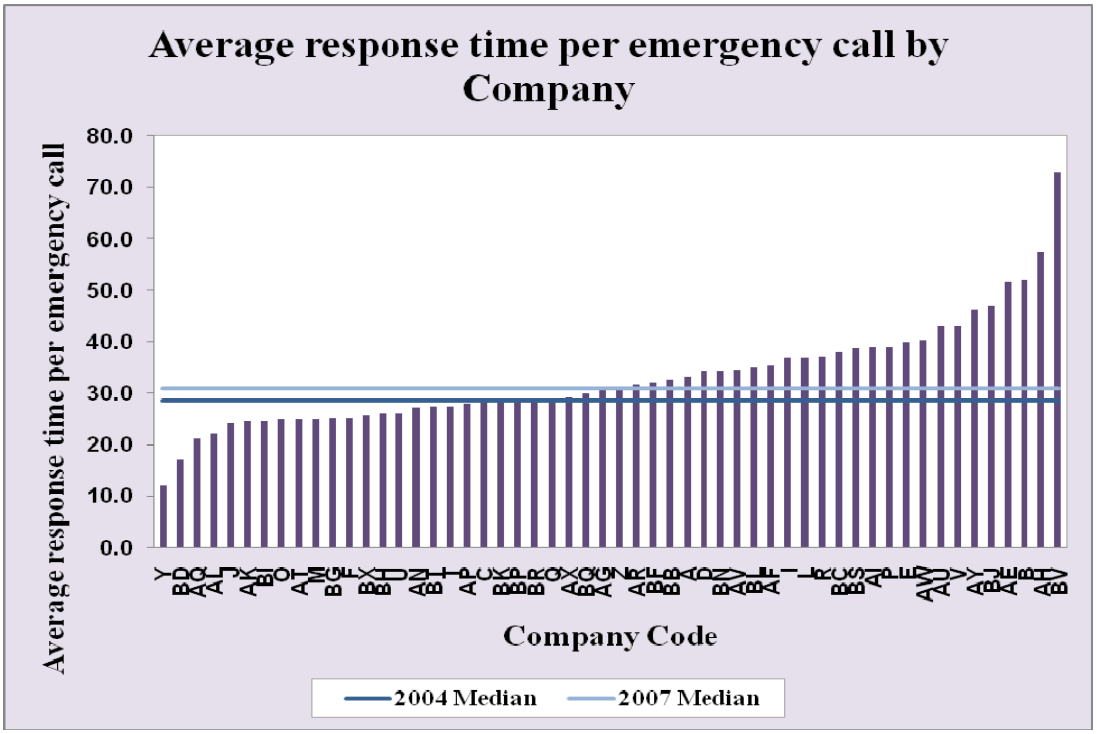
This scatter plot shows that most companies were in the lower left and lower right quadrants where the total cost per metered customer was less than $2.55 and in the upper and lower left quadrants where the average response time per emergency call was under 30 minutes. Again, we can deduce that companies in the lower left quadrant were the top performers.

Uncontrollable Factors

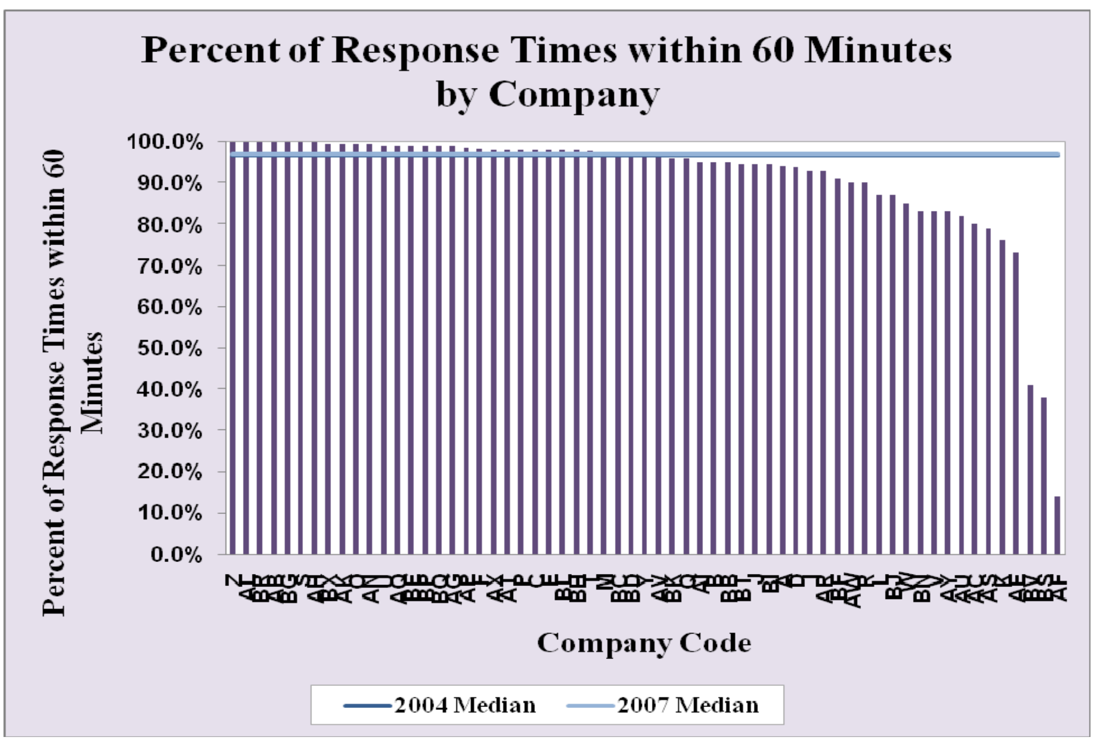
- Location
- Weather
- Time of day
- No. of service calls
- No. of Leak calls
- No. of customers
- Type of customers
- Traffic conditions
- Foreign odors

Appendix

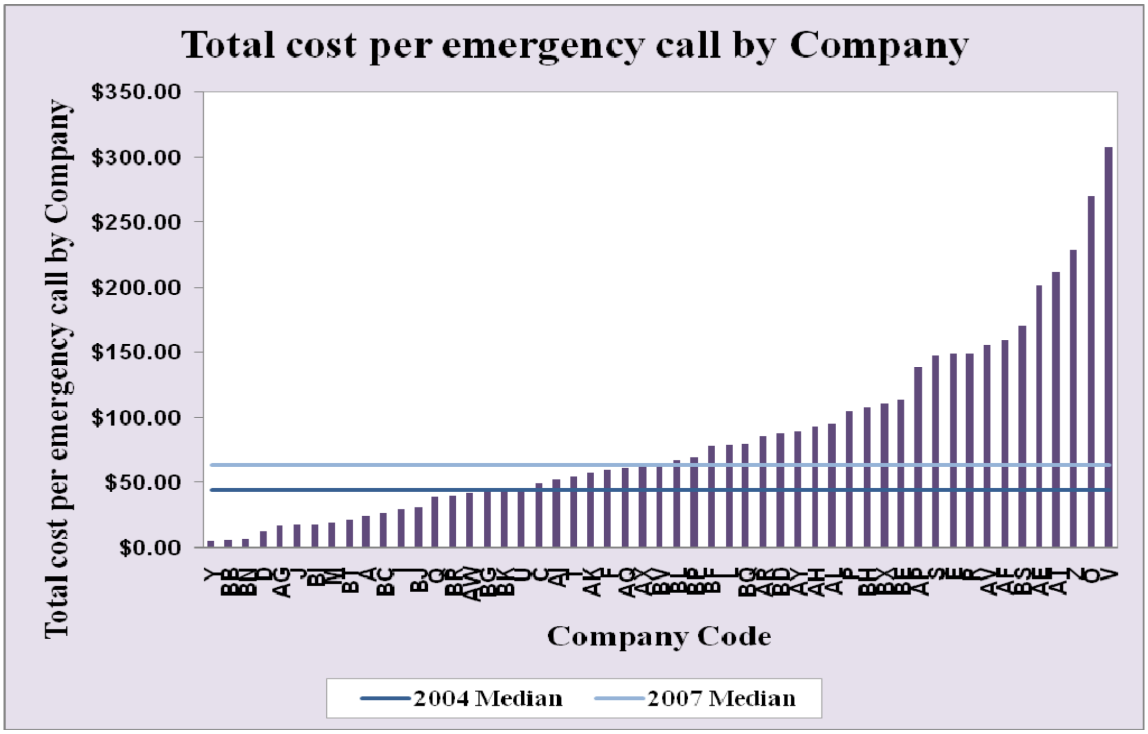
Graph 1



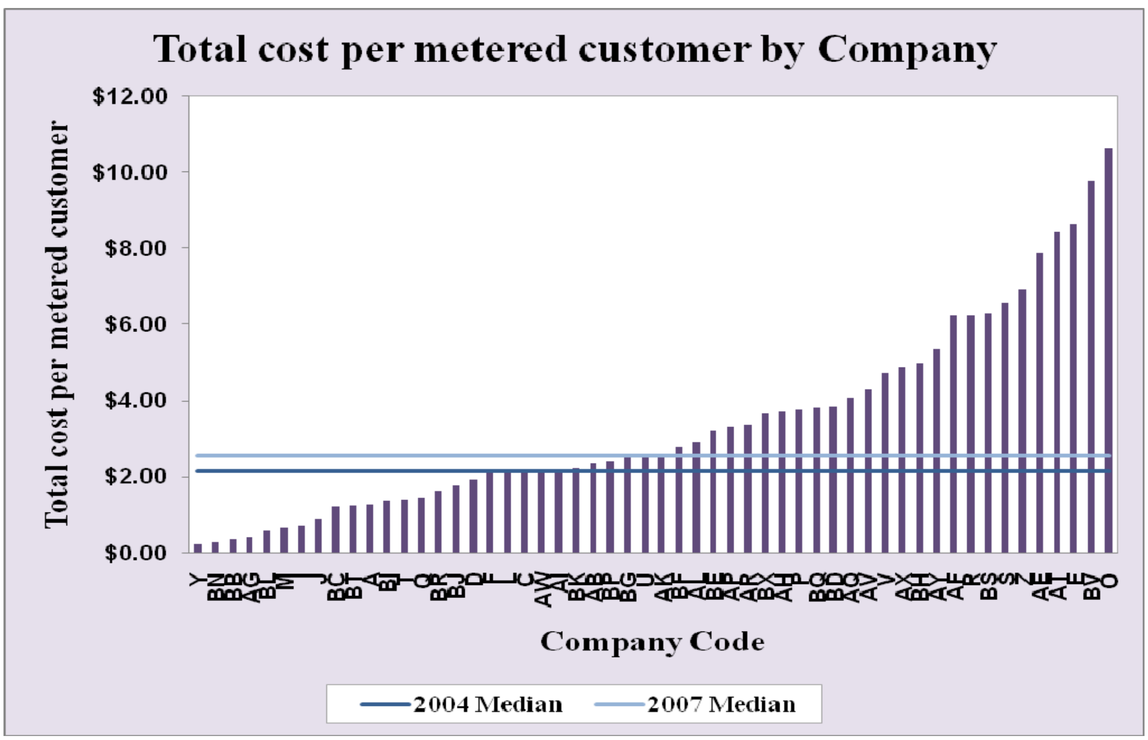
Graph 2



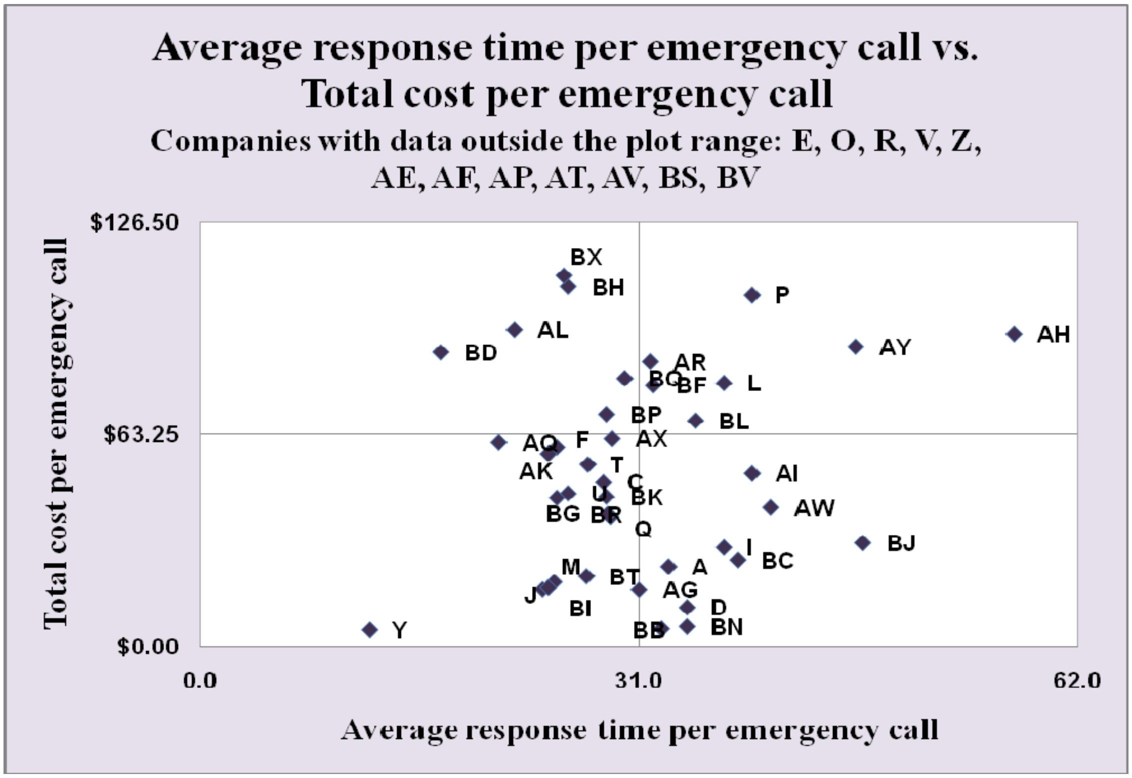
Graph 3



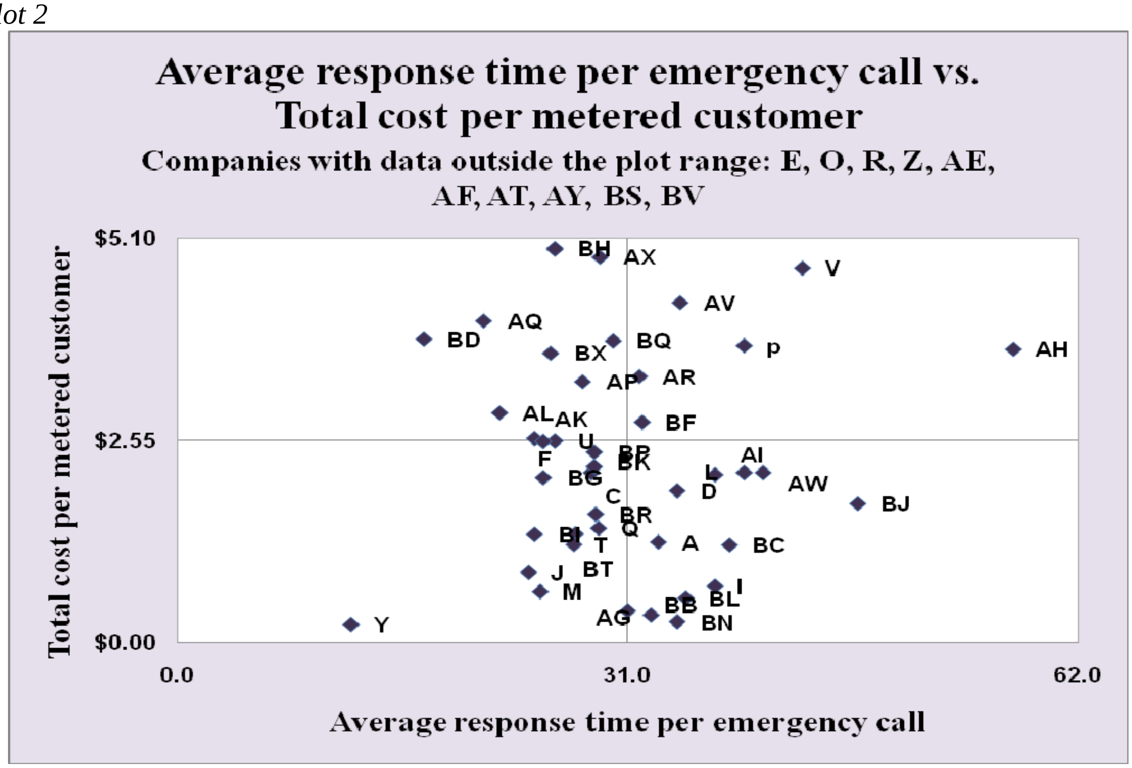
Graph 4



Scatter Plot 1



Scatter Plot 2



Best Practices Roundtable Summary

Staffing and Scheduling including Geographic Placement of Staff

- Utilize HVAC contractors or Fire Department as secondary call out in small towns/rural areas where don't have personnel; would move/locate employee to location on semi-permanent assignment.
- Personnel available 24 hours, track when call received, when assigned, when personnel on site and considered in performance review.
- Accelerated training program that includes quizzes and tests and concentration on areas needed for further study to complete requirements. Also includes MakeSafe 2000 computer based training as refresher training. Two tries at tests, if fail, go back to previous position or dismissed. Field experience after classroom training is approved by supervisor.
- Portable GPS for verbal driving instructions.
- Use of AMR during third shifts to minimize need for on-call staff.
- Utilise on-call construction staff.
- All areas are staffed at all times. Staffed by regions; 2 staff persons on call at night. Most of the time it is contractors.
- Utilize other qualified employees to augment the service tech staff – construction, leak survey.
- Dispatchers and field service tech report to the same person. Promotes teamwork.
- During the peak seasons, there's regular communications (weekly, monthly meetings, depending on the need) between credit and dispatch supervisor to balance workload to workforce and set allowances for the number of customers to be shut off.

Dispatching

- Take total responses from each dispatcher; customized database stamps orders and provides a report card for emergency response and appointment and for technician responding/accepting assignment; dispatchers have geographic areas of responsibilities.
- Regularly receive daily printout of any emergency responses of over 60 minutes till arrive time by order reviewed by manager and discussed with rep, issues included in weekly Operations Report to CEO.
- Clerks in dispatch receive calls into dispatch and internal communications which enables dispatchers to monitor emergency responses; 3 clerks to 5 dispatchers.
- Use trained field personnel as back up dispatchers and fill-ins for vacations.
- Centralized, consistent, technical training and practice techniques for dispatchers suggested by Group Discussion combining several ideas.
- Determine FTEs by documenting all your work drivers and your absence, vacation, overtime, peak time and phone service levels.
- eResource Planner – scheduler that manages off-time based on work rules, seniority, training, quotas.
- If it's an emergency call, it gets routed to the dispatch area otherwise it gets routed to the call center.
- 3-8 day classroom training course, one-on-one 1-month training with dispatch, 6-month probationary period.
- Senior dispatcher is in charge of overseeing 45-day training. New dispatchers rotate with each dispatcher every 3 days.

Technology

- Incorporate GPS into dispatching system so system makes recommendation (rather than dispatcher asking for volunteers or making assignment).
- Reporting on dispatch times (receipt to dispatch).
- If assigned order not acknowledged by field within a set duration (e.g., 3 minutes), order returns to the dispatcher for action.
- CGI/FI Leak Survey and Classification.
- Personal monitors for outside leaks – continuous assessment of ambient condition; also worn by meter readers for preliminary leak assessment.

Incident Command Systems

- Use EOC to determine logistics and resources.
- Going from one type to next -- Guideline -- Keep It Simple – short list of specific criteria (reduced to one laminated page).
- Combined liaison training with other utilities (shared method).
- Create consistency via method/system/processes across all subsidiaries (individual response plan within each subsid, but one ICS that serves as umbrella program over entire company).

Open Forum

- Formalized Incident Commander Program with modules including: technical skills, media training and apprentice-type training.
- Set up duty structure to readily implement ICS when necessary, after hours including procedures, checklists, summary lists.
- ARCOS - Web-based automated caller.
- Standby volunteer workforce - volunteer a week at a time for call out. Software: ColdFusion.
- Utilizes 24-hour coverage with contractors. They respond to emergencies, cover the entire area.
- Create new job titles for combo positions whose responsibilities include both service and construction.

AGA's Commitment to Enhancing Safety

AGA and its members are dedicated to the continued enhancement of pipeline safety. As such, we are committed to proactively collaborating with public officials, emergency responders, excavators, consumers, safety advocates and members of the public to continue to improve the industry's longstanding record of providing natural gas service safely and effectively to 177 million Americans. AGA and its members support the development of reasonable regulations to implement new federal legislation as well as the National Transportation Safety Board safety recommendations.

Below are voluntary actions that are being addressed by AGA or individual operators to help ensure the safe and reliable operation of the nation's 2.4 million miles of pipeline which span all 50 states representing diverse regions and operating conditions. In addressing these actions, AGA and its individual operators recognize the significant role that their state regulators or governing body will play in supporting and funding these actions.

It is the consensus of AGA members that the actions listed below enhance safety and gas utility operations when implemented as an integral part of each operator's system specific safety actions. However, both the need to implement and the timing of any implementation of these actions will vary with each operator. Each operator serves a unique and defined geographic area and their system infrastructures vary widely based on a multitude of factors, including facility condition, past engineering practices and materials. Each operator will need to evaluate the actions in light of system variables, the operator's independent integrity assessment, risk analysis and mitigation strategy and what has been deemed reasonable and prudent by their state regulators. It is recognized that not all of these recommendations will be applicable to all operators due to the unique set of circumstances that are attendant to their specific systems.

Building Pipelines for Safety

Construction

- Expand requirements of the Operator Qualification (OQ) rule to include new construction of distribution and transmission pipelines.
- Review established oversight procedures associated with pipeline construction to ensure adequacy and confirm that operator construction practices and procedures are followed.

Emergency Shutoff Valves

- Support the use of a risk based approach to the installation of automatic and/or remote control sectionalizing block valves where economically, technically and operationally feasible on transmission lines that are being newly constructed or entirely replaced. Develop guidelines for consideration of the use of automatic and/or remote control sectionalizing block valves on transmission lines that are already in service. Work collaboratively with appropriate regulatory agencies and policy makers to develop these criteria.
- Expand the use of excess flow valves to new and fully replaced branch services, small multi-family facilities, and small commercial facilities where economically, technically and operationally feasible.

Operating Pipelines Safely

Integrity Management

- Continue to advance integrity management programs and principles to mitigate system specific risks. This includes operational activities as well as the repair, replacement or rehabilitation of pipelines and associated facilities where it will most improve safety and reliability.
- Collaborate with stakeholders to develop and promote effective cost-recovery mechanisms to support pipeline assessment, repair, rehabilitation, and replacement programs.
- Develop industry guidelines for data management to advance data quality and knowledge related to pipeline integrity.
- Support development of processes and guidelines that enable the tracking and traceability of new pipeline components.

Excavation Damage Prevention

- Support strong enforcement of the 811 – Call Before You Dig program through state damage prevention laws.
- Improve the level of engagement between the operator and excavators working in the immediate vicinity of the operator's pipelines.

Enhancing Pipeline Safety

Safety Knowledge Sharing

- Review programs currently utilized for the sharing of safety information. Identify and implement models that will enhance safety knowledge exchange among operators, contractors, government and the public.

Stakeholder Engagement and Emergency Response

- Evaluate methods to more effectively communicate with public officials, excavators, consumers, safety advocates and members of the public about the presence of pipelines. Implement tested and proven communication methods to enhance those communications.
- Partner with emergency responders to share appropriate information and improve emergency response coordination.

Pipeline Planning Engagement

- Work with a coalition of Pipelines and Informed Planning Alliance (PIPA) Guidance stakeholders to increase awareness of risk based land use options and adopt existing PIPA recommended best practices.

Advancing Technology Development

- Increase investment, continue participation, and support research, development and deployment of technologies to improve safety. Evaluate and appropriately implement new technological advances.

Gas Utility Industry Actions To Be Implemented	Target Dates *
Confirm the established MAOP of transmission pipelines ***Note:*** Confirmation of established MAOP utilizes the guidance document developed by AGA, "*Industry Guidance on Records Review for Re-affirming Transmission Pipeline MAOPs,"* October 2011.	On an aggregate basis of AGA member companies, complete > 50% of class 3 & 4 locations + class 1&2 HCAs: 7/3/12 Remaining class 3&4 + 1&2 HCAs, based on PHMSA guidance: 7/3/13 Remaining class 1&2 by 7/3/15
Review and revise as necessary established construction procedures to provide for appropriate (risk-based) oversight of contractor installed pipeline facilities.	Trans: 12/31/12 Dist: 12/31/13
Under DIMP, evaluate risk associated with trenchless pipeline techniques and implement initiatives to mitigate risks	12/31/12
Under DIMP, identify distribution assets where increased leak surveys may be appropriate	12/31/12
Integrate applicable provisions of AGA's emergency response white paper and checklist into emergency response procedures	12/31/12
Extend Operator Qualification program to include tasks related to new main & service line construction	6/30/13
Expand EFV installation beyond single family residential homes	6/30/13
Incorporate an Incident Command System (ICS) type of structure into emergency response protocols	6/30/13
Extend transmission integrity management principles outside of HCAs using a risk-based approach	70% of population within PIR by 2020; 1&2 by 2030
Implement applicable portions of AGA's technical guidance documents: 1) Oversight of new construction tasks to ensure quality; 2) Ways to improve engagement between operators & excavators	Within 1 yr of AGA guidance
Begin risk-based evaluation on the use of ASVs, RCVs or equivalent technology on transmission block valves in HCAs	Within 6 months of Comptroller General study
Implement appropriate meter set protection practices identified through the Best Practices Program	Within 6 months of program results

* Target dates are based on an operator's evaluation of these actions in light of system variables, the operator's independent integrity assessment, risk analysis, and mitigation strategy. Target dates also assume state regulatory approval that action is prudent and reasonable and therefore recoverable in rates.

Gas Utility Industry Actions That Exceed 49 CFR Part 192
Incorporate systems and/or processes to reduce human error to enhance pipeline safety
Advocate programs to accelerate the risk-based repair, rehabilitation and replacement of pipelines
Support development of processes and guidelines that enable tracking and traceability of pipeline components
Encourage participation in One-Call by all underground operators and excavators
Influence and/or support state legislation to strengthen damage prevention programs
Use industry training facilities and evaluate opportunities to expand outreach and education programs to internal and external stakeholders
Support and enhance damage prevention programs through outreach, education, intervention and enforcement
Use a risk-based approach to improve excavation monitoring
Develop, support, enhance and promote CGA initiatives targeted at damage prevention, including data submission and 811
Support public awareness programs targeted at damage prevention
Continue AGA Safety Committee initiatives, such as sharing lessons learned through the Safety Information Resource Center, safety alerts through the AGA Safety Alert System, safety communications with customers and supporting AGA's Safety Culture Statement
Explore ways to educate, engage and provide appropriate information to stakeholders to increase pipeline public awareness
Conduct organizational response drills to improve emergency preparedness
Participate in state, regional and national multi-agency emergency response training exercises
Reach out to emergency responder community in order to enhance emergency response capabilities
Verify participation in a mutual assistance program, if appropriate; integrate into emergency response plans
Collaborate with stakeholders near existing transmission lines to increase awareness/adoption of appropriate PIPA recommended best practices
Promote benefits of R&D funding. Support R&D investment, pilot testing and technology implementation
Support technology development and deployment in critical applications
Collaborate on R&D

AGA's Commitment to Enhancing Safety: AGA Actions

ACTIONS COMPLETED

- ✓ Implement discussion groups to address safety issues including discussion groups for employee technical training, material supply chain issues, DIMP implementation, public awareness, work management and GPS/GIS
- ✓ Participate in 2012 DOT Automatic Shut-off Valve and Remote Control Valve Workshop
- ✓ Develop, with INGAA and API, a public document to explain ratemaking mechanisms used for pipeline infrastructure
- ✓ Create a Safety Information Resources Center for the sharing of safety information
- ✓ Hold regional operations executives' roundtables to discuss safety initiatives
- ✓ Sponsor workshop with INGAA and National Association of State Fire Marshals (NASFM) on emergency response
- ✓ Develop a technical note on industry considerations for emergency response plans
- ✓ Develop Emergency Response Resource center with a streamlined mutual assistance program
- ✓ Develop a task group comprised of AGA staff and members that will work closely with Pipelines and Informed Planning Alliance (PIPA) to ensure AGA member concerns are addressed in joint PIPA initiatives
- ✓ Work with INGAA, research consortiums and other pipeline trade associations to provide the NTSB with a compilation of the progress that has been made in advancing in-line inspection technology
- ✓ Host a roundtable focused on operator experience and lessons learned: 2012 Operations Conference
- ✓ Work with INGAA, API, AOPL, Canadian Gas Association and Canadian Energy Pipeline Association on a comprehensive safety management study that explores initiatives currently utilized by other sectors and the pipeline industry.

ONGOING ACTIONS

- Promote the use of innovative rate mechanisms for faster repair, rehabilitation or replacement.
- Maintain a clearinghouse on effective cost-recovery mechanisms that states have used to fund infrastructure repair, replacement and rehabilitation projects.
- Support legislation that strengthens enforcement of damage prevention programs and 811
- Support the Common Ground Alliance, use of 811 and other programs that address excavation damage
- Continue the work of the AGA Best Practices Programs to identify superior performing companies and innovative work practices that can be shared with others to improve operations and safety.
- Continue the Plastic Pipe Database Committee's work to collect and analyze plastic material failures
- Promote the AGA Safety Culture Statement and a positive safety culture throughout the natural gas industry
- Conduct workshops, teleconferences and other events to share information including pipeline safety reauthorization, DIMP/TIMP, fitness for service, records, in-line inspection, emergency response, and other key safety initiatives
- Hold an annual executive leadership safety summit.
- Recognize statistical top safety performers, promote safety performance and encourage knowledge sharing through AGA Safety Awards
- Support PHMSA and NAPSR workshops and other events
- Search for new and innovative ways to inform, engage and provide appropriate information to stakeholders, including emergency responders, public officials, excavators, consumers and safety advocates, and members of the public living in the vicinity of pipelines
- Participate in the Pipeline Safety Trust's annual conference to provide information on distribution and intrastate transmission pipelines, AGA and industry initiatives, and receive input
- Work with PHMSA to establish time limits for telephonic or electronic notice of reportable incidents to the National Response Center after the time of confirmed discovery by operator that an incident meets PHMSA incident reporting requirements
- Build an active coalition of AGA member representatives to work with PHMSA and other stakeholders to implement PIPA recommended practices pertaining to encroachment around existing transmission pipelines
- Advocate to state commissioners the inclusion of research funding in rate cases in an effort to increase overall funding for R&D
- Work with PHMSA and other stakeholders on opportunities to increase R&D funding and deployment of technologies
- Advocate acceptance of technologies that can improve safety

AGA's Commitment to Enhancing Safety: AGA Actions Continued

ACTIONS WITH TARGET DATES

- Develop guidance to determine a distribution or transmission pipeline's fitness for service and MAOP, and the critical records needed for that determination. **(5/30/12)**
- Create a Safety Alert Notification System that will allow AGA or its members to quickly notify other AGA members of safety issues that require immediate attention. **(5/30/12)**
- Develop a more comprehensive technical paper that presents benefits and disadvantages of the installation of ASV/RCV block valves on new, fully replaced and existing transmission pipelines. **(9/30/12)**
- Create technical guidance for oversight of new construction tasks to ensure quality. **(12/31/12)** (Track progress of industry's implementation of guidelines and summarize results annually)
- Utilize DIMP to evaluate the risks associated with trenchless pipeline techniques and implement, where necessary, initiatives to prevent and mitigate those risks. **(12/31/12)**
- Based on the results of the safety management study, identify and begin to implement initiatives that will enhance the appropriate sharing of safety information. **(12/31/12)**
- Include meter protection in 2013 AGA Distribution Best Practices Program with results. **(9/30/13)**

ACTIONS – TARGET DATES NOT APPLICABLE

- Work with PHMSA and distribution operators on ways to address risk to meters from vehicular damage, natural and other outside forces.
- Engage PHMSA and NAPSR in discussions on whether TIMP should be expanded beyond HCAs and the benefits and challenges of applying integrity management principles to additional areas.
- Highlight in DOT workshops, NAPSR meetings and discussions with Government Accountability Office that: 1) Many AGA members are required to manage DIMP and TIMP programs that overlap. The effectiveness, inefficiencies and duplication of multiple integrity management programs must be explored. 2) Low-stress pipelines operating below 30% SMYS should be treated differently.
- Work with industry and regulators to evaluate how the grandfather clause can be modified to reduce and/or effectively eliminate its use for transmission pipelines.
- Work with other stakeholders to develop potential technological solutions that allow for tracking and traceability of new pipeline components (pipe, valves, fittings and other appurtenances attached to the pipe).
- Develop guidelines that provide for an improved level of engagement between operators and excavators.
- Work with other stakeholders to improve pipeline safety data collection and analysis, convert data into meaningful information, determine opportunities to improve safety based on data analysis, identify gaps in the data collected by PHMSA and others, and communicate consistent messages based on the data.
- Develop publications dedicated to improving safety and operations
- Pilot application of PIPA guidelines with select member utilities.

Safety and Compliance Positions in Progress

Position(s)	Job Description	Basis for Hiring	Safety and Compliance Regulations (if appropriate)
Compliance Supervisor (1)	Supervise/administer operations compliance activities including leak surveys, corrosion surveys, meter protection and remediation work orders.	Centralizing supervision and administration of safety/compliance programs improved business processes and allows field supervisors to dedicate more time to field workforce supervision.	Support the continuing need to meet requirements of 49 CFR Part 192, Subparts H, I, L, and M
Operations Systems Field Support (1)	Provide field support for implementation, training, and maintenance of mobile workforce technology	Transition from paper to electronic work orders to improve required documentation of field activities requires active support of the technology for the field workforce tasked with completing these activities.	Supports the continuing need to meet requirements of 49 CFR Part 192, all parts
Distribution Integrity Engineer (1) and Administrator (1)	Design, execute and administer the Company's Distribution Integrity Management Program (DIMP).	Implementation of DIMP began with the writing and submission of the plan for regulatory approval in 2011. Program implementation requires additional staff resources for execution and administration.	Supports the continuing need to meeting requirements of 49 CFR Part 192, Subpart P resulting from the 2006 Pipeline Inspection, Protection, Enforcement and Safety Act of 2006
Resource Management Specialists (3)	Schedule, dispatch and administer work order processes for additional maintenance and compliance activities including leakage, corrosion, and system operations.	Additional work groups/work orders moving from paper to mobile electronic technology requires centralized support for scheduling, dispatch and administration.	Supports the continuing need to meet requirements of 49 CFR Part 192, all parts
Resource Management Business Process Specialist (1)	Design, implement and improve business processes using mobile workforce technology.	Integrate and improve work order processes for construction, maintenance, and service to ensure effective operation, proper documentation, and rapid work order assignment.	Supports the continuing need to meet requirements of 49 CFR Part 192, all parts
Operations Trainers (2)	Develop and execute training programs for field and customer service operations, and emergency response public agency personnel.	Completes staffing for centralized training initiative begun in 2008. Staffing is required for the development and delivery of current and incremental training programs for additional work groups.	Supports the continuing need to meet requirements of 49 CFR Part 192, all parts and American Petroleum Institute Recommended Practice 1162 public awareness recommended practices.
Operation QA Specialist (1)	Perform quality assurance program tasks for company and contractor field operations.	Increases current QA staffing to expand and more effectively delivery QA programs for field construction, maintenance, compliance, and customer service activities.	Support the continuing need to meet requirements of 49 CFR Part 192, all parts and pending rulemaking on contractor quality assurance programs from the 2011 Pipeline Safety, Regulatory Certainty, and Job Creation Act.
Service Technicians (7)	Perform customer service functions including emergency response, odor investigation, meter setting, and appliance inspection.	Increases field staffing to more effectively respond for emergency response and odor calls. Addresses consolidation of A1/A6 odor call into one immediate response category.	Support public safety initiatives and aligns Company with industry best practices for response capacity.

Transportation Technician (1)	Provide vehicle maintenance and repair services for Company fleet operations.	Increase in field staffing for safety, compliance and customer service functions increases vehicles and related maintenance activities.	
Tax Analyst	To prepare state and federal tax returns, respond to audits, complete research of tax issues. Also prepares documents for financial reporting.	Taxes have become much more complicated since 2005 due to various financial reporting initiatives such as the standards for reporting uncertain tax positions, federal penalty provisions, and new federal tax compliance measures including Form UTP (Uncertain Tax Positions). Further, the Company's tax issues have become much more complicated since 2005, due in part to investments in new ventures such as Encana. SOX Rule X states that the CEO of a publicly traded company should sign the tax return.	Respond to increased enforcement of IRS rules and Sarbanes Oxley requirements.
Compliance Administrator	Support business ethics and compliance by providing training, employee communication, research and management of compliance system.	Respond to increased regulatory compliance.	Several regulatory agencies (SEC, FERC, CFTC and DOJ in particular) have increased requirements for and/or scrutiny of public companies. as Additionally, these agencies have enhanced their prior standards for what are considered appropriate practices related to integrity and legal compliance. For example, the Dodd-Frank Act both enhanced and increased standards related to meeting rules under SEC, FERC and CFTC regulatory structures, including monitoring, tracking and reporting obligations internally in order to establish integrity and compliance visibility from the top down in a public company, to ensure the right tone at the top as well as throughout the organization.
Financial Risk Analyst	To analze, identify and suggest solutions to risk issues associated with commodity trading activities. Assignments include: Recordkeeping requirements – track new unique swap identifiers and product codes for new deals; Reporting requirements – ensuring counterparties file with SDR	Increase regulatory requirements and to have backup to current single incumbent performing this work.	As a result of Dodd-Frank, new requirements go into effect in January of 2013 related to commodity trading. These will be monitored by the SEC under the Commodity Futures Trading Commission.

	(Swap Data Repository) and track SDR confirmations internally; Ensuring Company does not exceed CFTC mandated position limits; Monitoring CFTC on new rules expected to be promulgated in the future; Apply a 7 factor test to determine if new peaking contracts meet the definition of a “swap” as defined by the CFTC; Work with management to insure annual approval by Board of Directors to designate NW Natural as an “end-user”, qualifying for certain exemptions under the Dodd-Frank Act and CFTC rules.		
Economic Analyst	Develop NW Natural’s Integrated Resource Plans.	In response to the Company’s need to enhance the resources (currently a single incumbent) assigned to perform this work.	Respond to requirements of OR and WA Public Utility Commissions.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Russell A. Feingold

LONG-RUN INCREMENTAL COST STUDY / RATE DESIGN EXHIBIT 3600

August 9, 2012

EXHIBIT 3600 – SURREBUTTAL TESTIMONY – LONG-RUN INCREMENTAL COST STUDY / RATE DESIGN

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Russell A. Feingold and my business address is 2525 Lindenwood Drive, Wexford, Pennsylvania 15090.

Q. Are you the same Russell A. Feingold who filed direct and reply testimony on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company") in this docket?

A. Yes. My Exhibits NWN/1100-1102 support the Company's Long-Run Incremental Cost ("LRIC") Study, its proposed class revenue allocation, and the various rate design proposals filed by NW Natural in this proceeding. My Exhibits NWN/2500-2503 provided reply testimony on the Company's LRIC Study, revenue allocation, and rate design.

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

A. The purpose of my surrebuttal testimony is to respond to the various positions set forth in the rebuttal testimony of the Commission Staff (the "Staff"), the Citizens' Utility Board of Oregon (CUB), and the NW Energy Coalition (the "Coalition") as it relates to NW Natural's LRIC Study, its proposed class revenue allocation, and the proposed rate design for its residential, commercial, and industrial service classes. I will specifically respond to the claims made in the rebuttal testimonies of Staff witnesses Jorge D. Ordonez, George R. Compton, and Steve Storm, CUB witnesses Bob Jenks and Gordon Feighner, and Coalition witness Nancy Hirsh.

In particular, I will address the rebuttal testimony of the parties that attempts to justify undue discrimination in NW Natural's delivery service rates both among customers served in its residential class and among geographic regions. Staff, CUB, and the Coalition

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all fail to present persuasive arguments that refute the claim that the current reliance on volumetric rates to collect fixed costs is unduly discriminatory and, therefore, should be changed to eliminate this deficiency. I will discuss why each of these parties has failed to refute that volumetric rates, as used currently and as proposed by these parties, should be rejected in favor of NW Natural's proposed rate design. I will show that there are significant errors made by these parties in the analysis of the NW Natural's proposed rate design. I will also demonstrate that both CUB and the Coalition reached incorrect conclusions regarding the appropriate rate design to promote energy conservation using my discussion of economies of scale. I will show that Staff's analysis of welfare losses from adopting NW Natural's rate design is incorrect and that efficiency will actually increase as measured by the aggregate net change in consumers' surplus. I will also show that in all respects NW Natural's proposed rate design is not only preferable to the current structure of volumetric rates, it will work to promote conservation and to eliminate undue discrimination in its current delivery service rates. Finally, I will respond to certain points related to Staff's use of the Company's LRIC Study results to support its proposed changes to NW Natural's current revenue decoupling mechanism.

Q. How is your surrebuttal testimony organized?

A. My surrebuttal testimony is organized into the following three sections:

I. Introduction;
II. Issues Related to NW Natural's LRIC Study;
III. Issues Related to NW Natural's Residential Rate Design Proposal; and
IV. Issues Related to NW Natural's Revenue Decoupling Mechanism.

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II. ISSUES RELATED TO NW NATURAL'S LRIC STUDY

Q. Is there any quantitative basis for assessing the "benefits received" in conjunction with NW Natural's LRIC Study as recommended by Staff?[1]

A. No. The Company's LRIC Study is based on sound economic principles and analytical techniques that produces quantitative results that can be evaluated by the parties. There is no comparable analytical framework for Staff's concept of "benefits received." Staff has not made any estimate that provides guidance as to how benefits by class of service may be evaluated and used as part of the regulatory process. From a theoretical point of view, we know that all customers benefit from the utility's gas system or else they would choose not to use the system. We also know that the demand for natural gas is a derived demand since customers only consume natural gas indirectly as an input for heating, cooking, or a manufacturing process. This means that there is no readily available measure of benefits received by customers. Thus, Staff's benefits principle has no practical application as a tool in the allocation of costs to a gas utility's customer or rate classes or in the determination of its underlying LRIC.

Q. Does the citation from the U.S. Court of Appeals for the District of Columbia in the case K N Energy, Inc. v. FERC, 968 F.2d 1295, 1300 support the proposition that Staff's benefits principle is appropriate in the context of setting NW Natural's base rates in this proceeding?

A. No. The cited case relates to the recovery of take-or-pay costs and the qualification in the quotation related solely to the method of recovery for the specific take-or-pay costs

[1] See Exhibit Staff/2400 Ordonez/6, lines 1-3 and Ordonez/16, lines 3-11.

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resulting from contracts entered into prior to FERC's open access policy. The quotation is clarified later in the order with the following paragraph:

> While neither statutes nor decisions of this court require that the Commission utilize a particular formula or a combination of formulae to determine whether rates are just and reasonable, it has come to be well established that ... rates should be based on the costs of providing service to the utility's customers plus a just and fair return on equity. FERC itself has stated that "[i]t has been this Commission's long standing policy that rates must be cost supported. Properly designed rates should produce [297 U.S.App.D.C. 19] revenues from each class of customers which match, as closely as practicable, the costs to serve each class or individual customer."[2] (emphasis added)

Staff's reference to the specific phrase "reflect to some degree" occurs in the context of the Court addressing the method for recovering take-or-pay costs and in no way changes the fundamental principle enunciated later in this decision. Importantly, the courts have held that the principle of cost causation applies to both rate classes and individual customers. Rather, it confirms my view of the cost causation standard and its important role in deriving just and reasonable rates.

Q. Do you oppose the use of functionalized allocation factors under all circumstances as you have opposed the Staff recommendation in this proceeding?

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[2] K N Energy, Inc. v. FERC, 968 F.2d 1295, 1300 (D.C. Cir. 1992) (K N Energy).

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A. No. In general, I agree that functionalization is the first step in the preparation of an embedded or fully allocated cost of service study. That step is followed by cost classification and cost allocation. However, the concern I have with Staff's approach is that it must rely heavily upon embedded costing principles that assign or otherwise allocate a gas utility's total cost of service (i.e., its total revenue requirement) to its rate or customer classes based upon historical costs rather than on LRIC concepts.[3] This creates an inherent mismatch between the level of LRIC and the level of embedded costs required to functionalize the LRIC. In my opinion, using this method provides an artificial sense of alignment of LRIC with embedded costs even though such an alignment is not possible because the two costing methods are fundamentally different.

More generally, I believe that LRIC studies are not as useful for the allocation of a utility's total revenue requirements, but are more useful as a guide for evaluating a utility's rate design. If Staff desires to use a functionalized allocation process in the Company's LRIC, then it should consider using an embedded cost of service study to allocate the Company's total revenue requirements rather than using its LRIC Study that has been adjusted using embedded costing concepts.

I finally should point out that while Staff argues for the inclusion of this additional step in the Company's LRIC Study, the results derived by Staff under its approach are not materially different from the results derived under the Company's LRIC Study.

Q. Do you agree with Staff's need for a "Distribution Mains Study" as described by Mr. Ordonez in his rebuttal testimony?[4]

[3] See Exhibit Staff/2402 Ordonez/1-18.
[4] See Exhibit Staff/2402 Ordonez/13, line 15 through Ordonez/14, line 14.

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A. No. The Company's treatment of distribution mains in its LRIC Study already properly reflects the cost characteristics of this investment component and allocates the associated costs to the Company's rate classes in an appropriate manner.[5] This additional information will not enhance the quality of the Company's LRIC estimates based on the specific method it currently utilizes to allocate distribution mains related costs to its rate classes.

Additionally, Staff's request is curious given that its cost of service and rate design witnesses do not seem to agree on the underlying principles and methods related to the concept of cost causation. While Mr. Ordonez believes that additional data is relevant to address distribution mains within the context of the Company's LRIC Study, Mr. Compton is of a very different view when he states that, "with distribution mains used in common by all upstream customers, there is no cost causation link that would definitely connect a specific positive amount of cost responsibility to any particular customer."[6] He makes the same point later in his rebuttal testimony when he points out the "impossibility of a cost-causation determination of a customer's share of mains costs."[7] In my view, Mr. Compton's statements suggest that he either does not believe the type of data requested by Mr. Ordonez is meaningful to help identify and quantify the cost causative characterisitics of distribution mains or else he simply does not believe such customer-specific data is available from a gas utility such as NW Natural. I agree with both of these points and, therefore, conclude that the additional study recommended by Staff is not warranted.

[5] See Exhibit NWN/2500 Feingold/4-10.
[6] See Exhibit Staff/2500 Compton/3, lines 13-16.
[7] See Exhibit Staff/2500 Compton/8, lines 6-7.

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Q. Staff criticizes the Company's treatment of distribution mains in its LRIC Study based on its belief that, "assigning a residential customer the same cost of main as an industrial customer clearly violates the 'cost-causation' principle."[8] Do you agree with Staff's conclusion?

A. No. Staff's belief is misplaced and is not supported by the cost evidence presented by the Company. Referring to NW Natural's LRIC Study[9], industrial customers receive a share of the customer-related costs of distribution mains (see Exhibit NWN/1101 Feingold/9) and a share of the demand-related costs of distribution mains (see Exhibit NWN/1101 Feingold/6). The Company's residential customers do not receive a share of the demand-related costs of distribution mains which means that the Company's residential customers are assigned less distribution mains costs compared to the level assigned to its industrial customers.

Q. Do you have any comments on Staff's proposed treatment of interruptible service customers in the Company's LRIC Study?

A. Yes. Staff's "main reason" for allocating fixed transmission-related costs to the Company's interruptible service customers is based on Staff's "benefits received" principle.[10] I stated in my reply testimony why Staff's approach is flawed and not supported by the design of NW Natural's gas system. However, Staff's non cost-based allocation method may inject into the Company's LRIC Studies prepared over time an unnecessary degree of variability in their results because the "benefits received," as measured by the frequency of interruption, by its interruptible customers will likely

[8] See Exhibit Staff/2400 Ordonez/12, lines 13-14.
[9] See Exhibit NWN/1101 Feingold/6 and 9.
[10] See Exhibit Staff/2400 Ordonez/16, lines 3-11.

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change over time as the actual level of interruptibility varies based on the Company's actual level of installed pipeline capacity and the actual peak day demands of its firm service customers. Under the Company's approach, such variability in results will not occur because the costs of its transmission system facilities will not be allocated to its interruptible customers consistent with the lower quality of service these customers are designed to receive under the Company's interruptible service tariffs.

Q. What is the Company's position with respect to Staff's proposed allocation of transmission costs to interruptible service customers?

A. As I have described in previous testimony, Staff's proposal to make such an allocation based on LRIC is problematic because its proposed methodology is not reflective of the costs of providing interruptible delivery service. However, despite the fact that Staff's proposal is not based on cost causation, I am aware that the Company would be open to adopting Staff's proposal to treat interruptible customers on a different basis. Specifically, the Company would not oppose assigning a greater portion of its total revenue requirement to its interruptible sales and transportation service classes in recognition of historical perspectives or equity considerations. I understand that the Company is concerned that a number of its interruptible service customers, for historical and geographic reasons, are receiving what is essentially firm delivery service because there is little benefit or need to interrupt these customers from a gas system operational perspective. On this basis, some allocation of NW Natural's total revenue requirement to these rate classes may be appropriate.

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Q. Does CUB express a view related to the Company's use of a minimum system concept for determining distribution-related costs by rate class in its LRIC Study?

A. Yes. CUB inappropriately mixes two different methods used to determine the customer component of costs in a utility's embedded cost of service study. In both the NARUC electric and gas cost allocation manuals, there is a clear distinction between the minimum system method and the zero-intercept method for determining the customer cost component of distribution mains or lines. The minimum system method used in NW Natural's LRIC Study recognizes that a residential customer is connected to its gas distribution system with a two-inch main. The use of the two-inch main is the most efficient and economic choice of main size for the Company to connect these customers. The Company's LRIC Study also recognizes that the two-inch main will serve the design day demand of these customers as I have discussed in detail in my direct and reply testimonies.

The alternate method referred to by CUB is the zero-intercept method which relies on a detailed statistical model to estimate the theoretical cost of a zero-inch main to determine the customer-related costs for use in the utility's embedded cost of service study. This concept does not apply within an LRIC study because the evaluation contained therein is based on the forecasted costs of facilities actually used to connect the customer to the Company's gas distribution system and the costs to meet customers' design day loads, which is accommodated for the Company's residential customers through the same two-inch pipe. The use of a minimum system approach in the Company's LRIC Study is correct on both theoretical and operational grounds. CUB's

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position that the analysis is a misapplication of the concept is incorrect and its position should be rejected.

Q. CUB's rebuttal testimony argues that the recovery of distribution main costs through the Company's monthly customer charge is inappropriate and that "only the direct costs the customer puts on the system (i.e., that customer's meter, their billing, etc.)" should be recovered through this fixed charge to encourage conservation.[11] Do you agree with CUB's position on this issue?

A. No. Once the customer is connected to the utility's gas distribution system, the costs to serve the customer are the same each month just like the cost of reading the meter or sending the bill to the customer. While CUB continues to believe that only the costs "directly related to individual customers" should be collected through the utility's monthly customer charge[12], the reality is that all of the other costs proposed by the Company to be recovered through its monthly customer charge applicable to residential customers are fixed in nature and are also caused by individual customers as they connect to the Company's gas distribution system and receive gas delivery service each month. This ratemaking approach is both compatable with conservation objectives and reflective of sound, cost-based ratemaking principles.

Q. Is the fact that some pipe of a gas utility may be less than 2 inches evidence that a 2-inch size main is not the minimum system for NW Natural?

A. No. Most companies use 1.25-inch plastic pipe for residential service lines. There may be circumstances where a segment of the service line may not be on the customer's

[11] See Exhibit CUB/200 Jenks-Feighner/11, lines 18-21.
[12] For example, see Exhibit CUB/100 Jenks-Feighner/10.

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property, but runs down a short public right of way before crossing on to the customer's property. A portion of that line may be classified as distribution main rather than service line even though it serves only one customer. This size of pipe is not used for the utility's integrated gas distribution system and is not the minimum size of main.

Q. Is CUB's reference to a 1.25-inch pipe installed at another gas utility[13] proof that a 2-inch pipe size cannot be utilized as the minimum system size pipe for purposes of conducting the Company's LRIC Study?

A. No. As I noted above, 1.25-inch plastic pipe is a typical service pipe size. The fact that it is installed by a gas distribution company is not unusual. It is also not evidence that this is the minimum size pipe actually installed by a gas utility for its distribution network. In fact, the Michigan regulation cited contained no reference to a 1.25-inch size main, but instead referenced two-inch as the smallest size pipe for its rules and regulations on gas distribution facilities.

Q. Why is it inappropriate to classify all distribution mains as demand-related for cost analysis purposes?

A. As I demonstrated in my reply testimony, the cost causative factors associated wth distribution mains are customers and design day demand. In fact, the number of customers explains most of the variation in both the miles of main installed and the associated mains investment. This makes intuitive sense because of the need for the gas distribution network to connect customers across the gas utility's entire service territory. As the number of customers increases, the more main is required to connect

[13] See Exhibit CUB/200 Jenks-Feighner/25, line 17 to Jenks-Feighner/26, line 5.

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those customers to provide them with gas delivery service. There is no reason to adopt CUB's position related to distribution mains and, in fact, that recommendation would violate principles of cost causation, as I have already demonstrated in my reply testimony. CUB offers no contrary evidence to support its viewpoint on this issue.

Q. Does CUB's claim have merit that the Company's LRIC Study will "force residential customers to also pay a higher share of transmission facilities?"[14]

A. No. Transmission facilities and their associated costs are separated out in the Company's LRIC Study so the concern raised by CUB about assigning more transmission-related costs to its residential class is misplaced.

III. ISSUES RELATED TO NW NATURAL'S RESIDENTIAL RATE DESIGN PROPOSAL

Q. Does Staff acknowledge that NW Natural's volumetric rates for its residential class meet the test for undue discrimination?

A. Yes. Mr. Compton acknowledges my statement that, "relying on volumetric rates to recover the Company's fixed distribution costs is unduly discriminatory because it charges different rates to different residential customers that have the same costs."[15] At the same time, however, Mr. Compton attempts to soften the point made by this statement by using the term "unfair" rather than "undue discrimination." However as I noted in my reply testimony, the central concept in defining undue discrimination is that customers with the same costs are charged different rates.[16] Importantly, this issue is one of fact, not opinion, and it cannot be dismissed by any party by simply asserting that the Company's proposed residential rate design is unfair.

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[14] See Exhibit CUB/200 Jenks-Feighner/27, lines 15-18.
[15] See Exhibit Staff/2500 Compton/5, lines 1-5.
[16] See footnote 31 at Exhibit NWN/2500 Feingold/ 30 for the definition of undue discrimination.

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The facts presented in this case in support of NW Natural's rate design proposal for its residential customers are simple and straightforward:

- The distribution-related costs to deliver gas to NW Natural's residential customers are the same regardless of the total amount of gas consumed by different customers within its residential class because the minimum distribution system that is installed to connect the customer also serves customers' design day demands.
- There is no evidence presented by Staff or other parties that this conclusion is not valid other than their simple assertions that some customers may have lower costs because of density, which assertions are shown to be incorrect from the evidence.
- The evidence shows that other utility regulatory commissions and the courts upon review have found that the costs to serve all residential customers are the same, and it is telling that the parties in this proceeding have not attempted to address these determinations.
- The evidence shows that each of NW Natural's residential customers has the same size meter, regulator, service line, and distribution main installed to deliver gas.
- The evidence shows that on average (since utility rates are based on average costs within a class, not the actual costs incurred to serve each customer) NW Natural's residential customers require the same length of distribution main and service line. The distribution costs incurred by NW Natural to serve its residential

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customers are, therefore, identical regardless of the amount of gas consumed by the customer.

- The evidence shows that customers in NW Natural's colder climate zones use more gas and pay higher rates for the same delivery service and, thus, subsidize customers in its warmer than average climate zones.
- The Company's current rates, and the rates proposed by Staff and other parties, collect more revenue from larger users and less revenue from small users to recover the same level of delivery service costs. In Staff's proposal, the proposed seasonal rate design increases this rate discrimination because it recovers even more distribution costs from larger users (due to their greater proportion of winter season gas usage) and less from smaller users for the delivery service which costs the same to provide.
- NW Natural's proposed rates for delivery service collect the same delivery costs from all customers and also collect more costs associated with storage and the related transmission facilities from larger users because those costs do vary with gas usage.

Based on these facts, and my discussion of various parties positions presented below, the conclusion that volumetric rates for delivery service are unduly discriminatory is the reasonable conclusion that the Public Utility Commission of Oregon (the "Commission") should find is supported by the facts and evidence. NW Natural's rate proposal should be approved to eliminate this undue discrimination in the natural gas prices charged to customers.

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Q. Does the issue of "social equity" or the expectations of customers regarding fairness provide a basis for the Commission to continue volumetric rates for NW Natural as the Staff position asserts?

A. No. Mr. Compton states with respect to social equity that, "When direct cost-causation is indeterminate, it is Staff's social equity position that benefits received should be considered, where benefits are most readily quantified by volumetric levels of consumption or demand."[17] This position is untenable for many reasons. First, there is no justification for undue discrimination in utility rates under any circumstance. Second, social equity like fairness has little meaning that can be determined based on a reasonable standard. In fact, the history of economic thought has addressed the concept of the just price (e.g., the doctrine of justum pretium) as part of the ethics in economics. The standard for the just price is discussed in two contexts: the market price or a price directly related to costs. Obviously in the regulatory context, the just price must be related to cost which Mr. Compton incorrectly claims to be indeterminate. I will discuss this point more fully below. Third, Staff's view that benefits received can be measured by volume of gas consumed is faulty. The demand for natural gas is a derived demand for particular services such as a heated home, hot water, cooking, drying, emergency electric power, and so forth. To claim that the benefits of these services can adequately be measured by gas volume is not true under any circumstances. The following example will illustrate this point. Suppose two households use the exact same volume of gas but use the gas for different end uses. One home

[17] See Exhibit Staff/2500 Compton/2, footnote 6.

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uses all of the gas for heating and the other uses gas for heating, water heating, cooking, drying, grilling, and for emergency generation. It stands to reason that the benefits of the natural gas are much greater under any definition of benefits for the second home than for the first. The derived demand nature of the need for natural gas makes gas volume an inappropriate measure of benefits. Thus, the claim made by Staff that other issues make volumetric rates legitimate fails because these factors do not make undue discrimination a legitimate outcome.

Q. Do other policy objectives such as long-term energy conservation provide a basis for continuing gas rates that are unduly discriminatory?

A. Given that the Company's proposed rates are fully consistent with its LRIC costs and the fact that Mr. Compton also recognizes that volumetric recovery of fixed costs is inconsistent with the optimum level of conservation,[18] NW Natural's proposed gas rates are not inconsistent with energy conservation. NW Natural's rates continue to promote conservation so long as conservation is properly defined as the optimum use of natural gas, and not as CUB and the Coalition seem to assume as an absolute reduction in natural gas use.

Q. Does the failure to persuade Staff that the costs to serve multi-family dwellings in urban areas are higher than in more suburban areas constitute evidence supporting Staff's belief that the costs to serve multi-family dwellings are lower than the costs to serve single family homes?

[18] See Exhibit Staff/1500 Compton/9, lines 12-15 and Compton/29, lines 3-4.

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A. No. In my reply testimony I demonstrated that NW Natural's costs are higher in urban areas based on its actual costs of projects. I also explained why the costs would be higher in the Company's urban areas compared to its more suburban areas. Since both the evidentiary data and the underlying rationale supporting why such costs are higher is inconsistent with Staff's position, Mr. Compton seems to simply dismiss this evidence by concluding he is not persuaded that the costs are of the same magnitude for multi-family dwellings as for single family homes. Mr. Compton provides no evidence that my conclusion is not valid that the costs of serving multi-family dwellings are the same, on average, as for single family dwellings. Further, as I pointed out in my reply testimony, the remedy for accommodating different costs for multi-family dwellings, as claimed by Staff, would be to establish a different rate class with its own fixed charge that would reflect the actual costs of serving multi-family dwellings. Consistent with Staff's beliefs, this would allow NW Natural to eliminate undue discrimination for all residential customers and meet the requirement for just and reasonable rates which is the "gold standard" of utility rates.

Q. Is it inequitable for low use residential customers to pay the same rate for delivery service as high use residential customers?

A. No. Despite the fact that Mr. Compton is uncomfortable with this position, this does not constitute countervailing evidence to the facts in this case which support the outcome that the Company's common distribution costs for providing delivery service to its residential customers is the same whether they are large or small consumers. While it is practically infeasible to directly assign such costs to each residential customer, the

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allocation of common costs to each rate or customer class is a requirement for revenue allocation and rate design purposes. The costs of delivery facilities must be recovered in a manner so that customers who use the same facilities (as Mr. Compton admits[19] and the evidence shows) pay the same rate for that use to eliminate undue discrimination.

Q. Does Mr. Compton provide an example that purports to show that only a volumetric rate will adequately track costs and recover the appropriate amount of delivery cost from two customers?

A. Yes. Mr. Compton alters the factual assumptions related to an example I used in my reply testimony to demonstrate undue discrimination related to multi-family housing.[20] But, Mr. Compton structures his example in a manner that makes it implausible. In his example there are two identical apartment buildings as I presented in my original example. The buildings are across the street from one another and, thus, have the same delivery costs. In my example, I assumed that one of the buildings was remodeled to be more energy efficient. The cost to deliver gas to the two buildings did not change, but the remodeled building paid less for gas under volumetric rates resulting in undue discrimination based on this type of rate structure. In Mr. Compton's example, he assumes that the remodeling of the building also resulted in doubling the number of apartments. Under that change, Mr. Compton points out that now there would be twice the level of customer charge revenue, and by his analysis, the creation of rate discrimination based on the higher number of meters priced at the Company's proposed monthly customer charge. He also assumes that the buildings continue to have the

[19] See Exhibit Staff/2500 Compton/ 5, lines 1-7.
[20] See NWN/2500 Feingold/38-40 and Staff/2500 Compton/5-6.

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same energy efficiency and use the same volumetric amount of gas and that the delivery costs for the two buildings remain the same. However, Mr. Compton's changed assumptions are not realistic for a number of reasons.

First, delivery rates are based on more than the cost of distribution mains, as I noted in my example. In this case, the remodeled building would have twice the investment in meters, regulators, risers, and service lines so Mr. Compton's assumption of the same delivery cost is not valid for those investments associated with delivery service. In addition, Mr. Compton assumed that the cost of distribution mains would remain the same. That assumption may or may not be correct for several reasons. Second, the more service lines there are on a particular distribution main, the greater the pressure drop across the length of that main. Instead of having 16 delivery points along the main segment there would now be 24 delivery points (2 buildings times 8 apartment units plus 8 additional apartment units). Based on the pressure drop formula for a stub main, there would be less capacity available to serve the gas load in the existing main even if we assume that the gas volumes were identical to those I assumed in my reply testimony. Third, if you double the number of apartments units, you also double the number of gas consuming appliances. This means that the gas load would increase even if conservation investments were made as part of the builiding remodeling. The increased gas consumption means higher design day demand for the utility that may also increase the need for more main capacity.

Taken together, it is unrealistic for Mr. Compton to assume that no additional main investment would be required under his changed example. The additional gas use from the added apartments means that the volumetric rate revenue for the two buildings cannot possibly be the same as Mr. Compton has assumed. In my opinion, this supposed contra-example illustrates that Staff has improperly portrayed the realities of a utility's gas distribution system. Therefore, Staff's arguments do not reflect reality, but are only based on a limited view of the facts. Staff's conclusion that the Company's proposed monthly customer charge recovers more cost from the remodeled building than the actual costs of the remodeled apartment building does not match the facts. The result is that there is no evidence of undue discrimination under the Company's proposed residential rate design as claimed in Staff's contra-example.

Q. Mr. Compton relies upon considerations other than cost in the design of rates for support of a rate that he acknowledged is unduly discriminatory.[21] Is that a reasonable approach to rate design in your opinion?

A. No. As I noted above, there are serious problems with each of his other considerations (i.e., benefits received and fairness to customers) that he relies upon to design the Company's delivery rates. The most significant problem is that once the evidence shows that the Company's current rate design causes undue discrimination, the rates should be changed to eliminate the problem. NW Natural has proposed a remedy that gradually transitions from volumetric recovery of most of its delivery service costs to the recovery of only storage and transmission costs through volumetric charges.

Q. Mr. Compton claims that you cannot say precisely what the cost of delivery assets for any individual customer are and, therefore, the common cost nature of the

[21] See Exhibit Staff/2500 Compton/5, lines 1-7.

investment prevents any conclusion about the costs being the same for NW Natural's residential customers. Does this position have any merit relative to the argument of undue discrimination in rates?

A. Yes. The merit lies in proving that the current structure for volumetric rates is unduly discriminatory. Mr. Compton agrees that residential customers use the same distribution mains and service lines. He also agrees that these customers use the same meter and regulator. Since that is true, the conclusion logically follows that these customers have the same costs to serve, although the precise amount is not known with certainty for any single customer because of the inherent difficulties in allocating a utility's common costs. However, rates must be set to compensate the Company for these common costs and that requires an estimate be made of the residential cost of service. I have developed that cost estimate using LRIC, and that cost estimate is the same for each residential customer. On an embedded cost basis (which is the level of costs used to set rates), the costs of those common facilities are also the same per customer since we know that the underlying cost causative factors are created by the customers residing in the Company's residential class.

Once the Commission determines the portion of the Company's embedded delivery costs to be allocated to the residential class (i.e., the class revenue allocation), each customer becomes equally responsible for the same share of those costs. And to avoid undue discrimination in rates, each customer should pay an equal share of those costs. The argument raised by Staff that there is no precise basis to derive such costs does not mean it is permissible to simply collect those costs by assuming higher use

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customers should pay a larger share of that cost through volumetric rates, and that customers located in The Dalles should pay higher rates for their service even though the cost of installing mains in that location is one of the lowest on the Company's gas system.

The facts do not support the use of volumetric rates despite the arguments of the other parties to continue a rate structure that is over 100 years old and does not reflect the costs of a modern and efficient gas distribution system, is not economically efficient, and results in unduly discriminatory rates.

Q. In discussing the issue of customer density, Mr. Compton argues that it would be unfair for one set of customers in his example to pay more for mains even though the costs are the same.[22] Does his example using two apartment buildings support that conclusion?

A. No. As I discussed above, his example is both factually incorrect and internally inconsistent. The facts are that it would be impossible for the costs to remain the same in an apartment building with twice as many apartment units. Even the cost of distribution mains might have to increase because of increased gas loads and more service lines served off of the main. Second, it is virtually impossible with twice as many gas consuming appliances and the increased number of residents that gas usage for the building would remain the same. Thus, Mr. Compton's assumption that the amount of service investment does not change is unrealistic, and so is his conclusion that it is unfair for the customers in the building with more tenants to contribute through rates

[22] See Exhibit Staff/2500 Compton/10, lines 5-12.

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twice as much for the same level of costs. The building with more tenants has caused the Company to incur additional costs so we are not in the position to conclude that the higher revenue contribution is unfair. Furthermore, the same conclusion would apply for volumetric rates because the building with more tenants will use more gas and, hence, will pay a larger share of the costs even under volumetric rates. In either case, the higher contribution is warranted because of the higher costs associated with providing gas service to more apartment tenants.

Q. Please discuss the issue raised by Mr. Compton that multi-family dwellings need not have higher than average main costs.[23]

A. Mr. Compton offers no evidence in response to the evidence I presented in my reply testimony that the Company's distribution costs are higher in areas with greater density. My statement on the interrelationship between costs and customer density is true not only for capital costs, but also for operation and maintenance expenses. Yet, Mr. Compton appears to dismiss this actual data out of hand. This is problematic because essentially, the issue of cost for main in urban areas is driven by the fact that main is usually located in the street along with myriad other underground services. This includes water lines, sewer lines, electric conduit, telephone conduit, and cable conduit as examples. It is this density that makes the installation, maintenance and replacement cost higher for multi-family. The existence of multi-family housing in an area suggest that the cost will be higher because the infrastructure to support multi-family dwellings includes all the factors that make main more costly. It is not typically possible to run

[23] See Exhibit Staff/2500 Compton/11.

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main for multi-family housing in unpaved easements or not to require traffic control for the installation.

Mr. Compton's view that higher density means lower cost is incorrect. He concludes his discussion with a question related to the greater consumption in the higher density areas paying for the greater investment in those areas using volumetric rates. The simple answer to the question he poses is "no." The $10.00 per month customer charge proposed by Mr. Compton does not compensate the Company for the cost of the meter, regulator, service line, meter reading, billing, remittance processing, and the associated overheads. Based on the Company's LRIC Study, those costs alone are more than double the $10.00 per month customer charge proposed by Staff.

Q. Does the evidence presented in this proceeding support lower delivery service rates for the Company's lower use multi-family customers as claimed by Staff?[24]

A. No. The evidence shows that the cost of delivery service to multi-family customers is actually higher than the cost for most single family customers (with the possibility of one exception - single family homes built in dense urban areas).[25] However, it is not practical or reasonable to dissaggregate the Company's residential class based on location and to separately identify these higher costs for multi-family dwellings. Rather, it is sufficient to recognize that NW Natural charges each residential customer the same rate for delivery service because each customer is equally responsible for the investment in its common gas delivery system based on the evidence that I have presented.

[24] See Exhibit Staff/2500 Compton/12, lines 2-6.
[25] See Exhibit NWN/2500 Feingold/37-42.

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Q. Why is Mr. Compton incorrect when he says that mains costs are not actually caused by any particular residential customer?[26]

A. As I explained in my reply testimony, customers cause the Company to incur costs based on both the planning and construction of its distribution mains, and as demonstrated by an empirical analysis conducted by the Company showing that customers explain nearly all of the variation in the Company's cost of distribution mains.[27] Mr. Compton assumes that the actual cost of mains would be unaffected by whether or not a particular customer connected to the main. This view fails to recognize that if customers chose not to connect, the main would not be built. If the main already exists and the customer is an in-fill customer, it is true that there would be no mains cost at the margin to connect that customer. That does not mean, however, that the customer should make no contribution to the cost recovery of the main that the Company's other customers (whose previous connections to the gas system were made possible with main extensions) now pay for based on the common cost of the main. Rather, it means that the new customer should pay the same common cost as all other customers connected to the main. The problem with volumetric rates is that if the new customer uses less gas than the average use per customer, he will pay a smaller share of the costs of these common facilities than the average customer, and will pay a larger share of the common costs if his gas usage is above the average use per customer. From a customer perspective, the only reasonable answer is to charge the customer the

[26] See Exhibit Staff/2500 Compton/13, lines 8-11.
[27] See Exhibit NWN/2502 Feingold/1-2.

same rate to use the common facilities as everyone else is charged, and that only occurs under NW Natural's rate design proposal.

Q. Please comment on the efficiency impact of some low use residential customers leaving the Company's gas system relative to the improved efficiency of lower volumetric rates.

A. Mr. Compton raises the issue that some residential customers will leave NW Natural's gas system and that the resulting loss in consumers' surplus means that its residential rate design proposal is inefficient.[28] His conclusion is not correct and, in reality, consumer surplus actually will increase in the future as a result of NW Natural's proposed rate design. Customers who connect to the Company's gas system, regardless of gas usage level, will have sufficient consumer surplus to be economic for the Company. Historically, the Company's volumetric rates permitted a subsidy from larger users to smaller users that created a deadweight loss because the smaller customers connected to the gas system based on a rate below the actual cost which created the very inefficiency that is now a concern for Mr. Compton. To explain the issue of consumers' surplus, it is important to note that over 1,200 customers of the group who were reflected in the Company's proforma customer adjustment had zero annual use. By definition, those customers had no loss in consumers' surplus. The remaining customers were adjusted out by the Company accounted for only about 0.6% of the Company's total annual gas throughput.[29] The lost consumer surplus from this small change in demand would be estimated by a downward shift in the demand curve

[28] See Exhibit Staff/2500 Compton/18, lines 8-14.
[29] See Exhibit NWN/2011 Oregon Jurisidictional Rate Case Test Year Customers & Volumes by Rate Schedule: Impact of New Rate Design

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not related to the price of the commodity itself. This change in consumer surplus would be small because the impact on gas volumes is so small. Consumer surplus would rise for other customers based on the lower volumetric charge. Further, the decrease also eliminates a cross-subsidy within the residential class that harms all customers over the long-run by encouraging low use customers to connect to the gas system who do not currently pay their incremental cost - resulting in higher rates for other customers. The use of fixed charge delivery rates under the Company's proposal eliminates this subsidy, improves efficiency, and also resolves the issue of undue discrimination under volumetric rates.

Q. Does the traditional labeling of a cost such as customer, demand, or commodity have anything to do with the economic efficiency of a particular rate design?

A. No. Mr. Compton raises this issue and states that he rejects the notion that because something is labeled a customer cost it must be recovered in the utility customer charge.[30] From an economic efficiency point of view his statement is correct. The label on the cost does not matter. An efficient two-part rate, as proposed by NW Natural, consists of a fixed charge that recovers all costs above the volumetric charge that recovers short-run marginal costs. Therefore, the label related to the type of cost does not matter. Nevertheless, the argument in support of the higher fixed charge component of the rate in this proceeding is that the fixed costs for delivery service are in fact the same based on the common cost of facilities used to serve residential and other small customers. Since these costs are the same as I have discussed, the rates for delivery

[30] See Exhibit Staff/2500 Compton/15, lines 18-20.

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service must be the same to eliminate undue discrimination among customers regardless of the level of volumetric consumption. The facts and evidence do not support any claim that volumetric recovery of fixed costs produces just and reasonable rates.

Q. Mr. Compton discusses the use of declining block rates as an alternative to NW Natural's rate design proposal. Is that an efficient alternative?

A. No. Historically, declining block rates have been used to approximate the cost of service and to have more efficient rates. However, the latest thinking in economic theory demonstrates that two-part rates as I have proposed are more efficient and provide better price signals for all customers.[31] More importantly from my perspective is that the two-part rate tracks costs more exactly and avoids the problem that even a declining block rate would be unduly discriminatory. A simple example will illustrate this point. Consider two identical customers whose only difference is that one uses a gas furnace and the other uses a dual-fuel heat pump. Both customers would have an identical design day demand. However, the dual-fuel customer would have a much lower annual load factor than the other customer. Using either the Company's current volumetric rate or a declining block rate, the dual-fuel heat pump customer would pay lower delivery charges than the customer with a gas furnace. The delivery rates proposed by NW Natural also eliminate this type of undue rate discrimination.

Q. Please discuss the issue of stranded investment raised by Mr. Compton[32]

[31] For example, see The Equity and Efficiency of Two-Part Tariffs in U.S. Natural Gas Markets, by Severin Bornstein and Lucas W. Davis, NBER Working Paper Series, Working Paper 16653, December 2010.
[32] See Exhibit Staff/2500 Compton/18, line 15 through Compton/19, line 2.

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A. It is correct to conclude as Mr. Compton has that when customers leave the utility's system there will be some stranded investment in the short-run. The reason some investment will be stranded is because the prior rates provided a direct subsidy to the smallest customers on the Company's gas system. In some cases, this subsidy may have been quite large. The Company met its obligation to serve these customers even though it was not in the best interest of either other customers or the social welfare to do so. The Company made prudent investments to serve these customers so it is entitled to the recovery of stranded costs.[33]

Q. Mr. Compton claims that your opposition to his seasonal rate proposal based on the year-round use of transmission facilities and the nature of pipeline demands is not a valid argument, and that the summer marginal cost for the Company is zero.[34] Do you have any comments related to his claims?

A. Yes. Given how a gas system operates, the demand on both internal transmission assets and pipeline demand is not limited to load as Mr. Compton suggests. The demand on these assets is a function of not only load but also of storage injection and maintenance demand. In fact, it is not unusual for companies with significant storage assets to operate at pipeline demands that approach a 100% annual load factor. While that is not the case here, the summer demand on these assets is much higher than load because these assets are used to move gas into storage. In addition, if there is any maintenance work required on these assets, that work is scheduled for the off peak

[33] Mr. Compton incorrectly or mistakenly identifies stranded costs as including meters. In practice, the meter and regulator will be removed from the premise no longer using natural gas and unless the meter cannot be refurbished, it will go back into inventory to be used at another customer premise. Only the service line will be considered a stranded cost.
[34] See Exhibit Staff/2500 Compton/20-21.

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period. While this type of work may not result in the total loss of capacity it may be reflected in reduced flows on either the interstate or intrastate system. As I stated in my reply testimony, this year round total demand on the assets means that there is no justification for the seasonal rate proposal. Further, there is no basis for concluding that these costs are at the margin. They are fixed costs and do not impact marginal cost at all. The cash flow of costs from the Company's perspective is a steady monthly payment. If these costs are collected only in the winter as proposed by Mr. Compton, this would require an increase to the working capital for the Company to permit it adequate summer cash flow to pay the costs of these assets. The idea of seasonal charges raises the cost of service and provides an incorrect price signal to customers. It should be rejected.

Q. Please comment on Mr. Compton's views related to storage.[35]

A. While it is true that storage facilities are sized to meet the winter peak demand and to provide for specific weather duration (i.e., days of storage), the storage facilities are used year round to balance loads and supplies through both injection and withdrawal activities. In fact, it is possible for there to be excess demand on storage facilities even in the summer. This can occur when there is more gas delivered to the utility's system than the sum of customer loads and the capacity to inject gas into storage. This would result in the issuance of an operational flow order either by the Company or its pipeline supplier. To claim that storage assets are just used for winter peak needs does not recognize the daily injection and withdrawal activities associated with storage operation.

[35] See Exhibit Staff/2500 Compton/21, lines 3-8.

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Q. Please discuss the claim that CUB makes that there is no undue discrimination because the same rate schedule is being used under all of the rate design proposals presented by the parties in this proceeding.[36]

A. Although the rate schedule is the same for everyone, this does not mean that the rate itself collects the same level of costs from each customer who has identical use of the Company's gas delivery system. As I discussed above, two identical customers with the same facilities and the same design day demand pay very different gas bills and average unit rates for that same service under a rate structure with volumetric charges - the definition of undue discrimination. I have shown that each of the Company's residential customer requires the same investment, on average, in a meter, regulator, service, and main, yet the customer currently pays varying rates for such service. There is no evidence that the Company's delivery costs are not the same for its residential customers. Since a volumetric rate (under the rate schedule applicable to residential customers) collects varying amounts to recover the same level of costs, the conclusion of undue discrimination under volumetric rates is inescapable. To make the claim as CUB does that because the rate schedule, as opposed to the effective rate and resulting bill under that rate schedule, is the same for each customer, there can be no discrimination, is not evidence that refutes the Company's undue discrimination claim. The distinction is that customers are charged under the same rate schedule but end up paying different rates, measured in dollars per unit consumed or total bill amounts, for

[36] See Exhibit CUB/200 Jenks-Feighner/8, lines 23-29.

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the same delivery service that requires and uses the same main, service line, meter, and regulator. CUB has presented no evidence here that changes that conclusion.

Q. Will you please comment on CUB's discussion related to averaging costs in the context of setting rates?

A. CUB states that my position relative to rate design is, "about when it is proper to average costs and when it is not."[37] There is no ambiguity in my position relative to the necessity to average costs for delivery service. That is simply a part of utility regulation when costs are common costs and when the utility's total revenue requirement must be recovered through rates. Essentially, CUB creates an issue out of whole cloth by saying I am not willing to average cost for certain areas of the Company's gas system. There is no evidence in my testimony that I have taken such a position. To be clear, the point that volumetric rates create subsidies among different climate zones has nothing to do with the averaging of costs. I am merely pointing out the fact that volumetric rates recover average costs based on average gas usage. Hence, customers in colder areas have higher than average gas usage and pay a larger share of the average system costs than do customers in warmer than average areas of the gas system even though the costs may be the same or even lower in that area. I discussed above, based on the evidence in this case, that this problem may be compounded because the Company's costs are actually lower in the coldest area for installing distribution mains. Nevertheless, my testimony supports a system-wide class rate as proposed by NW Natural.

[37] See Exhibit CUB/200 Jenks-Feighner/9, lines 5-6.

If the Commission continues the use of volumetric rates for the Company, it would be necessary to have climate zone-based rates to eliminate the discrimination based on weather, otherwise the rates would be unduly discriminatory based on the difference in HDDs between climate zones.

Q. CUB asserts that this rate proceeding is about who will be overcharged. Is that a fair characterization of the rate design issues in this proceeding?[38]

A. No. This rate proceeding is not about who will be overcharged, it is about which groups of customers are currently being overcharged and undercharged under the Company's volumetric rate design. I have identified the inherent cross subsidies in the volumetric rates that create undue discrimination within the Company's residential class. These issues have nothing to do with in-fill customers or customers who require a new main extension. In-fill customers share the costs of their gas delivery service by paying a portion of main costs that would otherwise be borne by someone else. They require no new main, but reduce the average footage of mains required to serve all customers, and the resulting average cost for all customers declines. Rates are not derived based on where and when customers locate as I discussed in my reply testimony which CUB references in its rebuttal testimony. Also, it is likely that just because of inflation, in-fill customers have higher service costs, but pay based on the average cost of old and new services. The truth is that in-fill customers should not pay for delivery service based on the fact that someone else has paid for the main they use and, thereby, become a free rider on the gas system, as suggested by CUB. CUB argues that volumetric rates will

[38] See Exhibit CUB/200 Jenks-Feighner/10, line 11.

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not charge the customer for mains they did not need. This is incorrect. With volumetric rates, an in-fill customer that uses more gas than the average customer for the class will actually pay more, not less, for mains, and for good reason. It would be unreasonable to have the initial customer on a distribution mains segment pay for all of the costs of that main and allow the next customer to connect to that main for free. The Company's currently approved line extension rules recognize this equity issue by permitting refunds for contributions made when in-fill or other customers use the same main. This is all a part of the process where rates are based on average costs, and where the purpose of the rate is to collect the resulting average cost from each customer. Volumetric rates do not properly match revenues and costs. By failing to do so in a substantial way (i.e., low use customers currently pay far less than the underlying costs while high use customers pay far more than the underlying costs under the rate proposals of Staff, CUB, and the Coalition) results in undue discrimination under a volumetric rate design.

Essentially CUB argues that undue discrimination is acceptable if some of the parties to the rate proceeding prefer the outcomes. However, that approach is not a recipe for just and reasonable rates. Suppose for example that most of the parties argued that residential service should be free, but that other customers should not pay more than the current rates. Such a position is obviously not just and reasonable. CUB's position is untenable and should be rejected.

Q. Is CUB correct that the only way to avoid undue discrimination in utility rates is to have each customer have its own rate?[39]

[39] See Exhibit CUB/200 Jenks-Feighner/11, lines 1-2.

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A. No. Utility rates need not be set for each customer to avoid undue discrimination because the averaging of costs for ratemaking is not discriminatory in and of itself. Rather, the discrimination arises when customers using the same utility facilities pay very different amounts for the right to use those facilities. The elimination of volumetric rates for delivery service by adopting the NW Natural's proposed rate design accomplishes this objective and permits no reasoned objection based on the fact that the delivery costs are the same among the Company's residential customers given the design and construction of a gas delivery system to serve its residential class.

Q. Does the argument that competitive firms charge the same price for customers with different costs justify undue discrimination in utility rates as suggested by CUB in its grocery store example?[40]

A. No. First, the example assumes that a grocery store can distinguish between customers based on whether the customer does or doesn't use its parking lot. Obviously it would not be costless to know which customer uses the parking lot or not. It would also not be costless to have the grocery store's cash register ring up a different price for each customer based on the services that the customer uses. Price transparency would be nearly impossible based on the myriad cost-causing factors. Charging the same price for every customer is less costly and more efficient for the grocery store owner even though costs may differ based on how the store is used. In the case of a utility's gas delivery service, though, the costs are the same for each residential customer.

[40] See Exhibit CUB/200 Jenks-Feighner/11, lines 4-12.

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Therefore, having the same price for gas delivery service as proposed by NW Natural is efficient, just and reasonable, and importantly, not unduly discriminatory.

Q. How does CUB respond to the discussion in your reply testimony regarding the inefficiency of the Company's current residential rate design?[41]

A. CUB includes a quotation from my reply testimony that if all energy conservation occurred at once, there would be some merit to what I say. CUB criticizes my comment because not all conservation does occur at once. However, from an economic perspective, it does not matter whether or not all conservation occurs at once, or over time - the end result is the same. Resources are wasted and misused because of volumetric price signals associated with the recovery of fixed costs that do not change as a result of conservation. The damage resulting from the incorrect price signal is harmful both now and in the future to both the customer and to society. It is harmful now because even a small after-the-fact rate adjustment from the operation of the Company's revenue decoupling mechanism will be added to rates going forward which reduces the currently expected return on investment for the customer. In the future, the customer is harmed because when his home is sold the investment cannot be recovered since the new buyer implicitly discounts the investment based on the effective gas rates at the time of the sale. This action will reflect the full impact of inefficient conservation investments over time on the recovery of the consumer's actual fixed investment costs.

Q. How do you respond to CUB's comments related to the use of long-run marginal costs for setting volumetric base rate charges?[42]

[41] See Exhibit CUB/200 Jenks-Feighner/12.
[42] See Exhibit CUB/200 Jenks-Feighner/13-15.

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A. First, the discussion of marginal costs in my reply testimony had nothing to do with gas commodity costs. It was directed solely at the use of long-run marginal costs as compared to short-run marginal costs for gas delivery service. As I explained in my reply testimony, short-run marginal costs would be higher than long-run marginal costs for a declining cost industry such as natural gas distribution. CUB's rebuttal testimony misses the point and discusses the gas commodity market which is not a subject of this rate proceeding. Since the entire discussion is not relevant to my reply testimony on this issue, my only response to CUB's argument is that the price in a competitive market is the marginal cost that should be reflected in rates.

Q. CUB expresses concern for the bill impacts of low income customers under the Company's proposed rate design. Does its rate proposal help low income customers manage their gas bills?

A. Yes. Customers will know with certainty the monthly cost of gas delivery service. It will not be significantly higher because of colder than normal weather, thus, reducing bills during the highest periods of gas usage. This benefits customers so that they can plan ahead with more bill certainty. It also benefits the agencies that provide financial aid because they will be able to estimate with more accuracy the level of gas bills and energy assistance required for consumers. The net result should be improved assistance for the Company's low income residential customers.

Q. Does the rebuttal testimony of Staff, CUB, and the Coalition imply that the Company intends to recover only gas commodity costs volumetrically in its residential rate design proposal?

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A. Yes. The rebuttal testimony of these parties seem to imply that the Company proposes to recover only gas commodity costs volumetrically, and that customers' ongoing conservation efforts are to be sacrificed in total. This is not correct. The price signal for conservation will still exceed the marginal commodity cost of gas (the only cost that varies directly with gas usage and the only short-run marginal cost) by $0.10356 per therm.[43] Bills actually increase for customers using under 837 therms per year and this represents about 72% of the Company's residential customers.[44] Further, some of the higher use customers are already paying more than the cost of service because they reside in the coldest parts of the Company's service area so a decrease in the bill for those large customers is reasonable.

Additionally, it is likely that for the very small portion of large residential customers who will see their gas bills decline, the cost of gas will have little impact on their consumption decisions because the income effect for some is likely to be larger than the price effect. For other customers who could have a more significant response to price, the personal funds to respond to the price signal may not be readily available. As a result, there likely will be no change in gas consumption relative to the change in price caused by rate design because the demand for natural gas will only change with either added capital investment or behavioral changes by the customer.

Finally, the volumetric charge under the Company's proposed residential rate design still will collect about 57% (49% for gas costs and 8% for volumetric delivery

[43] See Exhibit NWN/1102 Feingold/11.
[44] See Exhibit NWN/1102 Feingold/11-12 ($72+1.03583X=$349.08+0.70486X, and solve for X, with X=837).

costs)[45] of the total test year revenue requirements for this rate class assuming full rate relief. Importantly, the price signal for customers will promote more efficient use of natural gas as compared to the current volumetric price signal, and that is exactly what conservation is all about - more efficient use of resources.

Q. Please comment on the view expressed by the Coalition related to conservation under the residential rates proposed by the Company.[46]

A, In order to reach its conclusion, the Coalition must define conservation as an absolute reduction in natural gas consumption. I have discussed this point above, so I will not repeat it here. Rather, I will address the claim that the Company's proposed rate design will, "blunt the signal to customers that energy efficiency and conservation actions will help them lower their bills."[47] As I noted above, the proposed Company's residential rate design will still recover over half of the total costs associated with this rate class on a volumetric basis. Most of this cost is the commodity cost of gas which will actually be saved when the customer conserves. It is inappropriate to conclude that the reduction in a customer's gas bill for the component that represents over half of the total bill does not provide a meaningful incentive to reduce gas usage and does not further act as a disincentive to wasteful use of gas service. Customers will generally respond to this price signal in a way that is optimal for them individually, and that is more nearly optimal for society as a whole. In addition, the Company's proposed rate design meets the goals of a sound rate structure and would result in just and reasonable rates based on the evidence filed in support of the Company's proposal. Further, there is nothing

45 See Exhibit NWN/1102 Feingold/3 and 11.
46 Exhibit NWEC/200 Hirsh/7.
47 Exhibit NWEC/200 Hirsh/7, lines 4-5.

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inherent in this rate proposal that reduces the energy outreach to the Company's customers.

Q. Is it possible to show how the Company's proposed rate design provides an incentive for conservation?

A. Yes. As I have discussed above, the volumetric component of the Company's proposed rate design recovers about 57% of the total revenue requirements for its residential class. This also means that as annual gas consumption increases, the portion of the bill recovered volumetrically will also increase. Table 1 presented below illustrates this point.

Table 1 - Percent of Annual Gas Bill Recovered Volumetrically[48]

Annual Therms	Total Bill	Volumetric Portion of Bill	Percent Volumetric Recovery
500	$701.51	$352.43	50.2%
750	$877.73	$528.65	60.2%
1,000	$1,053.94	$704.86	66.9%
1,500	$1,406.37	$1,057.29	75.2%
2,000	$1,758.80	$1,409.72	80.2%
4,000	$3,168.52	$2,819.44	89.0%

This Table illustrates that the price signal is weakest for those using the least amount of gas. As a practical matter those using the least amount of gas also have the lowest savings potential by virtue of their lower than average gas usage level. For the largest

[48] Assumes a commodity cost of gas of $0.60684 per therm and NW Natural's proposed rates for Year 3 under Rate Schedule 2R.

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customers, the volumetric charge still represents the most significant portion of their gas bills. Importantly, the resulting decision to conserve is based on a more correct economic price signal under the Company's proposed residential rate design and minimizes the distortion of the expected return on investment for the customer and society.

Q. Does the evidence in your reply testimony prove that the Company's investment in distribution mains is not related to volume, which is contrary to the Coalition's claim?

A. Yes. In my view, there is no question that mains investment by the Company is not related to gas volume, which is contrary to the Coalition's claim.[49] Both the theoretical and empirical basis I have provided in my opening and reply testimonies proves conclusively that mains investment is not related to volume. In fact, no other party to this rate proceeding makes such a claim.

Q. What can you infer from Ms. Hirsh's statements concerning the Company's line extension policy[50] as it relates to her claim for the volumetric treatment of distribution mains costs?

A. In my opinion, Ms. Hirsh is suggesting that because the operation of a gas utility's line extension policy requires annual revenues from a customer to economically justify the utility's distribution main extensions, the use of a cost allocation method that relies upon annual volumes is entirely appropriate. I disagree with her logic.

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[49] See Exhibit NWEC/200 Hirsh/7, lines 23-24.
[50] See Exhibit NWEC/200 Hirsh/7, lines 23-30.

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There is no denying that the Company's main extension policy is based on customer revenues. A large portion of those revenues are currently volumetric, especially in the residential class, because monthly customer charges are low relative to the customer's annual gas bill and because demand charges are non-existent in this class. On that basis, I believe Ms. Hirsh is suggesting that the cost basis for distribution mains is strictly volumetric in nature. This is not correct.

One must recognize the actual components of costs, and not the cost recovery mechanisms that have evolved without reference to cost.Under Mr. Hirsh's logic, if the Commission were to establish and approve monthly customer charges, which were fully cost compensatory, and demand charges for all classes, then the nature of the Company's revenues reflected in its main extension policy would change. Ms. Hirsh's support for volumetric cost treatment, using the Company's main extension policy as justification, would quickly disappear. It appears that Ms. Hirsh is attempting to justify cost causation on the basis of the Company' existing cost recovery (i.e., ratemaking) mechanisms.

Q. Is the shift in gas delivery costs from large users to small users a rationale for not approving the Company's proposed residential rate design as claimed by the Coalition?

A. No. This is in fact a necessary condition to eliminate undue discrimination.

Q. How should long-run marginal costs be used to design rates as suggested by the Coalition?[51]

[51] Exhibit NWEC/200 Hirsh/8, lines 1-7.

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A. Economic theory does not support the use of long-run marginal costs to produce efficient outcomes. It does, however, give us a reasonable starting point for rate design. That point is that the fixed customer costs for residential customers should be far higher to track the LRIC and the volumetric charges should be far lower. More importantly, the Coalition's rationale based on market price volatility is in no way related to the economics of a gas utility's delivery system which is the subject of this rate proceeding. There is very little volatility in the costs recovered in base rates. Costs rise with the underlying inflation and with expansion of the gas delivery system to connect new customers. The cost of delivery service for customers at the margin is shown in the Company's LRIC Study. The rates proposed by NW Natural properly reflect these marginal costs for new customers. The rates supported by the other parties do not reflect these costs and, thus, are inefficient when it comes to the marginal cost of growth.

Q. Please comment on the Coalition's analysis of the marginal cost of gas resulting from conservation.[52]

A. As with my discussion of the marginal commodity cost of gas addressed in CUB's rebuttal testimony, that topic is not relevant to a base rate proceeding or to the design of the Company's delivery service rates.

IV. ISSUES RELATED TO NW NATURAL'S REVENUE DECOUPLING MECHANISM

Q. Does Staff properly characterize the relationship between the Company's LRIC Study results and its current revenue decoupling mechanism?

[52] Exhibit NWEC/200 Hirsh/8.

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A. No. Mr. Storm states that "full LRIC" is derived by dividing the Company's "total LRIC" by the number of "existing customers."[53] However, this is not an accurate characterization of the referenced calculation. NW Natural's LRIC Study results are derived independent of the number of "existing customers" based on the Company's various components of forward-looking or future costs. The Company's total class LRIC equals the sum of the customer and demand (i.e., design day demand) cost components that are derived for net new customers only. The total class LRIC is derived for purposes of allocating the Company's total revenue requirement to each of its rate classes. It is important to note that these LRIC amounts bear no relationship to the Company's total revenue requirement based on embedded costs which is used to set base rates. Yet, Mr. Storm makes this assumption in his discussion of the relationship between the LRIC for new customers and the related revenue recovery under the Company's proposed rates.

The need for rate adjustments under the Company's revenue decoupling mechanism associated with its new customers arises because rates are based on embedded costs and the costs of a new customer are based on the costs actually incurred when the customer is attached to the Company's gas system. To assess the impact of revenue decoupling on the opportunity the Company has to earn its allowed rate of return, it is necessary to review the customer-related LRIC component (i.e., the costs associated with the meter, regulator, service line, and main) which varies with the number of customers and the LRIC component related to transmission and storage

[53] See Exhibit Staff/2200 Storm/41, lines 10-12.

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which varies with design day demand. Under NW Natural's proposed rate design, if total gas usage remains the same while the number of customers increase, the volumetric charges for the storage and transmission cost components enable the recovery of these costs, and a portion of the customer cost component must be recovered through the revenue decoupling mechanism to provide the Company with an opportunity to earn its allowed rate of return. This is necessary because the Company's customer-related costs increase by more than the level of the applicable monthly customer charge, as I will demonstrate below.

Q. How does the Company's LRIC Study calculate the revenue requirement from the additional investment to serve new customers?

A. LRIC is calculated on an annual levelized carrying charge basis over the useful life of the particular asset. As Company witness Siores points out in her surrebuttal testimony, this is a different value than the annual revenue requirement for the first year the new asset is in service. Therefore, the comparison of a Company's gas rate with its LRIC for purposes of determining if the Company is provided a reasonable opportunity to earn its allowed rate of return associated with customer growth cannot be made in the way that Mr. Storm has made in his supporting calculations.

Exhibit NWN/3601, Feingold/1 presents a table that compares the first-year revenue requirement for the Company's customer-related costs with the annual levelized costs used to calculate its LRIC. As this Exhibit illustrates, the first-year cost for the Company's Rate Schedule 2R is $242 higher than the cost level relied upon by Mr. Storm in his various numerical examples (remembering that rates are based on

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embedded cost revenue requirements rather than on the LRIC). This data serves as the actual cost evidence that supports Ms. Siores' conclusion that Staff's proposed changes to the Company's current revenue decoupling mechanism does not permit the Company to recover its costs.

Q. Are there any other deficiencies in Staff's analysis of the Company's revenue decoupling mechanism based on how it interprets and utilizes the LRIC Study results?

A. Yes. Staff claims that the Company's fixed costs of storage and transmission do not vary with customers, but instead vary with volume.[54] This claim is incorrect. Within the context of NW Natural's LRIC Study, the fixed costs of storage and transmission vary with customer growth whenever new customers add to the Company's design day capacity requirements, which is not the same as additional gas volumes. A gas utility's design day demand does not change in direct proportion to the conserved annual gas usage of its customers. This is because not all conservation measures reduce design day demand. For example, adding tankless water heating reduces gas volumes for water heating by about one-third, but actually increases design day demand. Further, as it relates to transmission facilities, conservation in an area of no growth has no impact on transmission investment because you cannot move the freed-up capacity from one area of the utility's gas system to another.

[54] See Exhibit Staff/2200 Storm/44.

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Q. Will you please comment on Staff's conclusion that the Company's revenue decoupling mechanism will enable it to collect more revenue for serving new customers than the increase in its fixed costs?[55]

A. Staff is incorrect in its conclusion as evidenced from the cost data reflected in Exhibit NWN/3601 Feingold/1. NW Natural will experience an increase in LRIC associated with serving a new customer, excluding storage and transmission related LRIC, in the first year after new rates are effective that is approximately 73% higher than the annual levelized LRIC, and that is about 64% higher than the total revenue requirement for Rate Schedule 2R, excluding storage and transmission costs.[56] This outcome assumes that the Company's proposed rates are approved and that the customer's gas usage is at the level of the average residential customer.

Q. To support one of its examples, Staff assumes an identical percentage change in the Company's customer growth levels (net of conservation) and its growth in design day requirements attributable to the storage and transmission functions.[57] Is that a correct assumption?

A. No. While it may be a convenient assumption for Staff to adopt for for illustrative purposes, it is nevertheless an incorrect assumption. I have demonstrated previously why this assumption is incorrect related to the Company's transmission and storage functions. There are other reasons why the results in Staff's example could differ from the identical percentage relationship between customer growth, design day demand, and

[55] See Exhibit Staff/2200 Storm/35, lines 4-7.
[56] $187,992,107 divided by 538,601. See Exhibit NWN/1102 Feingold/1, line 16, column D and NWN/1101 Feingold/1, line 1, column D.
[57] See Exhibit Staff/2200 Storm/49, lines 4-8.

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storage and transmission LRIC that Mr. Storm has assumed. For example, the greatest portion of the Company's customer base is located in the geographic area with the lowest Heating Degree-Days ("HDDs") in its service area. Lower HDDs will also equate to lower design day demands. If conservation occurs in the warmer climate areas and growth occurs in the colder climate areas, the design day demand would increase at a higher percentage rate than the decline in design day demand caused by conservation, even assuming that the decline in use is matched by a decline in design day demand.

Q. In conjunction with its discussion of the Company's revenue decoupling mechanism, Staff discusses the definition of "infill" customers.[58] Will you please explain the importance of that definition?

A. For purposes of conducting the Company's LRIC Study, an "infill" customer is defined as a new customer located at a previously unserved location. When the name on an existing account changes, there are no new incremental costs incurred other than minor costs to establish the account, to initiate service, or to install a meter (assuming the meter had been previously removed) for the premise. This is not a customer that impacts the average length of distribution main required to serve new customers. In order that the derivation of LRIC be based on correct values, the Company's LRIC Study did not include any customer as a "new customer" where there were existing facilities already serving that premise.

Q. Does a change in the name on an existing gas service account have any impact on the Company's revenue or costs?

[58] See Exhibit Staff/2200 Storm/58.

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A. As long as this type of change occurs assuming similar usage characteristics, there is no effect on either the Company's revenues or costs. There are no additional revenues associated with the account under normal circumstances and no practical way to determine gains or losses from this change so long as the cost of establishing service and setting the meter are fully recovered in the applicable charges for providing these services.

Q. Do you have comments related to Staff's discussion of how "infill" customers may impact the level of costs incurred by the Company and its recovery of such costs through rates?[59]

A. Mr. Storm includes a hypothetical example of mains "infill" based on two neighborhoods. While parts of his discussion may infer that the Company believes its gas system is becoming less dense over time, I have not claimed that density is not increasing for the Company's gas distribution system. I readily acknowledge that such as outcome is a result of mains "infill" activities. However, customer growth on the Company's gas system occurs through both main "infills" and main extensions. Therefore, the potential for mains "infill" naturally declines over time unless the gas system is continually expanding its distribution mains grid to connect new customers at the edges of its gas system. Suppose a utility pipes a new subdivision with 100 lots and installs 10,000 feet of main. If only 75 homes are built initially and all use natural gas, the average density is about 133 feet of main per customer. As "infill" activities occur, the average density increases, but we know that the theoretical limit for density in this example is 100 feet

[59] See Exhibit Staff/2200 Storm/61-64.

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per customer.[60] At some point all the “infill” potential is utilized unless the gas system continues to expand geographically. For any established time period, the combination of main “infill” and main extensions has an averaging effect on density based on using a portion of the utility’s existing facilities and a portion of its new mains to serve new customers. The corresponding value for NW Natural derived in its LRIC Study is 77 feet of main per customer. This result does not mean that the density measure will be 77 feet forever, or that the Company’s next LRIC Study could not result in a higher or lower average density measure for new customer growth. What we do know is that the density level cannot decrease below a certain minimum level, although that amount cannot be easily determined as long as the Company’s gas system has growth from both main “infills” and main extensions.

The important point here is that Staff’s assumption related to customer growth and density levels for the Company cannot be continued indefinitely. In other words, without the periodic installation of main extensions to serve new customers, the potential for “infill” from existing mains declines. In addition, when a utility’s “infill” activities have been growing at a relatively rapid rate, this condition will limit the impact of future “infill” activities on the utility’s resulting density level.

Q. What do you conclude related to Staff’s proposed changes to the Company’s current revenue decoupling mechanism?

A. Since Staff’s positions are based on an incorrect assessment of the economics of net new customers, Staff’s proposed changes to the Company’s current revenue decoupling

[60] 10,000 feet divided by 100 lots.

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mechanism should be rejected because they fail to meet the test of providing the Company with a reasonable opportunity to earn its allowed rate of return.

Q. Does this conclude your testimony?

A. Yes, it does.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Exhibits of Russell A. Feingold

LONG-RUN INCREMENTAL COST STUDY / RATE DESIGN EXHIBIT 3601

August 9, 2012

EXHIBIT 3601 – LONG-RUN INCREMENTAL COST OF STUDY / RATE DESIGN

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	Annual Cost - First Year				Annual Levelized Cost (LRIC Study) [1]				
Rate Schedule	Mains	Services	Meters and Regulators	Total	Mains	Services	Meters and Regulators	Total	Difference
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1R	$195	$235	$73	$503	$110	$130	$50	$290	$213
1C	$195	$247	$122	$565	$110	$136	$85	$332	$233
2R	$195	$292	$84	$571	$110	$161	$58	$330	$242
3C Firm Sales	$195	$702	$160	$1,058	$110	$387	$111	$608	$449
3I Firm Sales	$195	$1,364	$659	$2,218	$110	$751	$457	$1,319	$899
31C Firm Sales	$195	$2,077	$852	$3,125	$110	$1,144	$591	$1,846	$1,279
31C Firm Trans	$195	$3,371	$1,032	$4,598	$110	$1,857	$716	$2,683	$1,915
31C Interr Sales	$195	$3,028	$992	$4,215	$110	$1,668	$688	$2,466	$1,749
31I Firm Sales	$195	$3,028	$1,002	$4,225	$110	$1,668	$695	$2,474	$1,752
31I Firm Trans	$195	$3,028	$1,002	$4,225	$110	$1,668	$695	$2,474	$1,752
31I Interr Sales	$195	$3,028	$1,011	$4,235	$110	$1,668	$702	$2,480	$1,755
32C Firm Sales	$195	$4,548	$1,001	$5,745	$110	$2,505	$694	$3,310	$2,434
32I Firm Sales	$195	$4,548	$1,001	$5,745	$110	$2,505	$694	$3,310	$2,434
32 Firm Trans	$195	$7,493	$1,012	$8,701	$110	$4,128	$702	$4,941	$3,760
32C Interr Sales	$195	$7,493	$1,001	$8,689	$110	$4,128	$694	$4,933	$3,757
32I Interr Sales	$195	$7,493	$1,018	$8,707	$110	$4,128	$706	$4,944	$3,762
32 Interr Trans	$195	$25,344	$1,001	$26,540	$110	$13,961	$694	$14,766	$11,774

[1] Exhibit NWN/1101 Feingold/9 (as updated in response to OPUC Staff Data Request 225)

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of C. Alex Miller

ENVIRONMENTAL COST RECOVERY – SITE REMEDIATION RECOVERY MECHANISM
EXHIBIT 3700

August 9, 2012

EXHIBIT 3700 – SURREBUTAL TESTIMONY – ENVIRONMENTAL COST RECOVERY – SITE REMEDIATION RECOVERY MECHANISM

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I. INTRODUCTION

Q. Are you the same Alex Miller who provided direct testimony and reply testimony on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company") in this proceeding?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony responds to the rebuttal testimony offered by Hugh Larkin Jr., on behalf of the Northwest Industrial Gas Users (NWIGU) and the Citizens' Utility Board of Oregon (CUB), together referred to as "NWIGU-CUB" regarding NW Natural's proposed recovery of prudently incurred expenses of environmental remediation.

Q. Please provide a summary of NWIGU-CUB's rebuttal testimony.

A. Mr. Larkin continues to maintain that the Company should "share" in the costs of environmental remediation by disallowing 50 percent of the Company's expenses from recovery through rates. He also maintains that the Company should not be allowed to recover its cost of capital on any funds it spends on remediation activities, and that instead the Company should only be allowed a recovery at its debt rate.

II. COST SHARING

Q. What arguments does Mr. Larkin make in his rebuttal testimony to support his continued request for a 50 percent disallowance of remediation expenses?

A. He makes several arguments, including that ratepayers would be "punished unfairly" if the Company were allowed to recover remediation expenses through rates; that such recovery would violate "foundational ratemaking principles" as well as principles of "right

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and wrong;" and that sharing should be imposed upon NW Natural because some other companies are subject to sharing.

Q. Please summarize Mr. Larkin's stated reasons for his position that ratepayers would be punished unfairly if the Company were allowed to recover remediation expenses through rates.

A. Mr. Larkin explains that his position is primarily based on the fact that current ratepayers were unaware of and could not affect the Manufactured Gas Plant (MGP) operations that caused the Company to incur remediation obligations.[1] In other words, they should not pay for these costs because they could not object to historic operations and cannot change them.[2]

Q. Do you agree that current ratepayers' knowledge of and ability to affect Company operations should be the factor that determines whether the Company can recover expenses?

A. No. For several reasons, Mr. Larkin's position is untenable. First, his proposed standard for cost recovery appears to be novel, and would not produce reasonable results in this instance or in other instances where the Commission determines recoverability of costs. And, such a standard cannot be squared with accepted regulatory practice. For example, costs to the utility such as franchise taxes and pipeline fees are generally recoverable in rates. Yet customers are not readily able to affect

[1] *See* NWIGU-CUB/200 Larkin 25 (explaining position that today's ratepayers did not have any knowledge of, and could not affect the Company's historic MGP operations, and stating that "This to me is at the heart of the issue."); *See also id*. at 28 ("Neither current, nor past, customers had any knowledge of how the MGPs were operated. They, therefore, could not object to how these plants were affecting the environment.").
[2] *Id*.

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whether the utility incurs these costs. In fact, the general public may not be aware of the specifics of many of the costs that are imposed upon utilities, and which are routinely recoverable through rates. This does not mean, however, that it is somehow inappropriate for the Company's rates to be based on these costs.

Additionally, even if the Commission were to apply Mr. Larkin's proposed standard for cost recovery, his application is misguided in that he argues that remediation costs should not be recoverable because current ratepayers were not aware of, and could not affect historic operations. As explained throughout NW Natural's testimony in this case, the remediation costs are what are at issue in this case, and these are current expenses, imposed by current laws and agency actions. Therefore, as much as any utility expenses, today's ratepayers have access to information regarding the current laws and agency actions through which the remediation obligations and expenses are being imposed.

Finally, Mr. Larkin's position on this topic appears to be at least partially founded on the idea that the historical production of manufactured gas was, in itself, a "misdeed."[3] The Company addressed this very issue through the direct testimony of Dr. Andrew Middleton, where he testified that, during the "MGP era," (i) there was widespread reliance on the manufacturing of gas in order to provide required utility service throughout the United States; and (ii) neither the MGP industry nor society in general understood the potential long-term environmental consequences resulting from

[3] *See*, *e.g.*, NWIGU-CUB/200 Larkin 27 (referring to historic operations as "environmental misdeeds");

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the handling of gas manufacture residuals. Simply because current laws now require follow up remediation actions to such operations, which were accepted and standard in the past, is not a reason to categorize them as "misdeeds" that disqualify the Company from the ability to recover its prudently incurred costs associated with its utility service.

Q. Can you summarize Mr. Larkin's stated reasons for his position that cost recovery for remediation expenses violates "fundamental principles of right and wrong"?

A. With respect to his statement about principles of "right and wrong," Mr. Larkin does not offer much explanation, other than to say that the issues in this case should be decided on that standard, rather than on what would be "the best financial outcome for the Company."

Q. Please provide your response to this argument.

A. I assume that Mr. Larkin's statements on this topic are essentially a reiteration of his position that it would be unfair for NW Natural to base its rates on the costs it has incurred to complete environmental remediation. I have responded to that argument above.

Additionally, NW Natural believes that it is inappropriate to characterize its request in this case as somehow violating what is "right" in order to produce the "best financial outcome" for the Company. NW Natural's proposal is only to recover prudent costs that it has incurred, and will incur, in order to fulfill its legal obligations to mitigate historic operations conducted as part of providing utility service. It does not violate fundamental principles of right and wrong to seek recovery of prudently incurred expenses that are imposed on the utility.

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Q. Can you summarize Mr. Larkin's stated reasons for his position that cost recovery for remediation expenses violates "foundational ratemaking principles"?

A. Mr. Larkin simply explains that he does "not agree that current ratepayers are the appropriate source from which the remediation clean-up costs should be recovered." NWIGU-CUB/200, Larkin/28. Instead, he argues that the costs should be "borne by those who are responsible for the pollution," referring to the Company. *Id*.

Q. Please provide your response to these statements.

A. Again, Mr. Larkin's position seems to be based on the notion that NW Natural is attempting to commit, or has committed, misdeeds. Otherwise, there is no reason to distinguish remediation costs from other utility costs that are recoverable through rates, (such as employee wages) because the Company is as "responsible" for these costs as it is the costs of its environmental remediation. NW Natural's proposal to recover environmental remediation expenses *is* based on fundamental ratemaking principles, which allow NW Natural to recover prudently incurred expenses associated with utility service through rates.

Additionally, to the extent that Mr. Larkin is arguing that it is contrary to standard ratemaking to allow recovery from *current* ratepayers of expenses of remediation related to *historic* operations, I would point out, again, that this issue has been reviewed by many Commissions, all of whom have found that, absent facts to the contrary, there is a sufficient nexus between current remediation expenses and utility service to support the recovery of these costs through rates. *See* NWN/1500 Miller/6-7. *See also, e.g.*, *Attorney General v. Michigan Public Service Commission*, 618 N.W. 2d 904 (2000)

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(finding that the fact the contamination arose from a utility service provided to different customers in past years does not change the fact the company is incurring a significant expense in the course of its business in the present); *Central Illinois Light Co.,* 124 PUR 4th 498 (1991) Illinois (finding that costs incurred in cleaning up MGP sites are deemed a reasonable and current cost of doing business for a gas utility and are recoverable from current ratepayers, and that the costs, mandated by both state and federal law, are legitimate, recurring costs of doing business); *Peoples Natural Gas Co.*, 144 PUR 4th 333 (1993) Minnesota (finding that there is a sufficient nexus between remediation costs and present ratepayers from the fact the property had been used and useful at the time the pollution of the land occurred). The Parties have not offered any reason for the Commission to depart from this accepted approach.

Q. Please summarize Mr. Larkin's statements regarding his position that regulatory treatment of other utilities supports the Commission imposing sharing on NW Natural.

A. Mr. Larkin points out examples of where utilities are required to bear a portion of remediation costs. *See* NWIGU-CUB/200 Larkin/31.

Q. Does the fact that some other utilities are required to share in the costs of remediation mean that the Commission should impose sharing on NW Natural in this case?

A. No it does not. As Mr. Larkin points out, there are various regulatory treatments around the country, with nearly all commissions allowing for cost recovery of remediation expenses from current ratepayers, and with some requiring a sharing of such costs

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between the utility and ratepayers. In many, and maybe even the majority of instances, however, sharing is not imposed on the utility.

While the actions of other Commissions shows that there are variations in the regulatory treatment of environmental remediation costs, NW Natural believes that the Commission's consideration of NW Natural's cost recovery should be based on the facts and circumstances relevant to NW Natural, just as other commissions around the country have done with the utilities under their jurisdiction. In this case, NW Natural has offered significant evidence that its past operations and current remediation efforts were conducted prudently and in accordance with applicable standards. NW Natural has also offered much transparency into its activities, and has sought, and continues to seek, to maximize insurance recoveries. No party has offered evidence to the contrary. Additionally, given the size of NW Natural's obligations, CUB-NWIGU's and Staff's proposals would have a material detrimental effect on the Company, and likely upon customers because of this detriment. Based upon these circumstances, the Commission should reject NWIGU-CUB's and Staff's proposals for indiscriminately imposing sharing upon NW Natural.

Q. Does Mr. Larkin make any other arguments in his reply testimony as to why the Commission should impose sharing upon NW Natural?

A. Yes, he makes a couple of other arguments. He argues that sharing is consistent with the Commission's disallowance of other costs the utility incurs. He also argues that I misinterpreted his opening testimony, which claimed that NW Natural's historic ROE was

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enough to compensate the Company for the risks of manufacturing gas for its customers.

Q. Please summarize and respond to his argument that sharing would be consistent with the Commission's disallowance of other costs.

A. Mr. Larkin states that "not all current costs that are incurred by utilities are recoverable from customers."[4] He then offers examples, including "advertising that simply enhances the image of the Company" and "political lobbying expenses."[5]

These examples do not support sharing of prudently incurred environmental remediation expenses. Corporate image advertising and political lobbying expenses are not allowed in rates because it is assumed that they are incurred primarily for the benefit of shareholders. Mr. Larkin does not assert, and could not assert, that NW Natural's remediation obligations and associated expenses are incurred to benefit shareholders. To the contrary, NW Natural's manufactured gas operations were undertaken to serve customers, and its remediation activities are required by law.

Q. Please summarize and respond to Mr. Larkin's argument that you misinterpreted his opening testimony, which claimed that NW Natural's historic ROE was enough to compensate the Company for the risks of manufacturing gas for its customers.

A. Mr. Larkin states that I mischaracterized his opening testimony when I interpreted him as arguing that the Company must have received a "high rate of return" in the past that rewarded it for operating a manufactured gas plant. He clarifies that he did not intend to

[4] NWIGU-CUB/200 Larkin 29.
[5] *Id.*

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imply that NW Natural's predecessor had a high ROE in the past, and that instead, he is pointing out that, whatever the Company's rate of return was, it compensated the Company for the unknown risks of running a utility. Even with this clarification, Mr. Larkin's testimony does not support his sharing proposal. Just because the Company had a regulated rate of return in the past does not mean that it should not be allowed to recover prudently incurred costs.

Q. Does Mr. Larkin make any other assertions that you would like to respond to?

A. Yes. Based on the work of a Dr. Hatheway, Mr. Larkin concludes that NW Natural likely knew the risks involved in manufacturing gas, and that the Company is therefore seeking to "take the rewards [of the remediation] and push the consequences onto innocent ratepayers." Dr. Andrew Middleton is responding to these statements separately on behalf of NW Natural, but I will note only that Mr. Larkin seems to be making a giant leap when he relies on Dr. Hatheway's book to attribute foresight and knowledge of future environmental remediation obligations to NW Natural's predecessor Company.

IV. CARRYING COSTS

Q. Does Mr. Larkin maintain his position that NW Natural should not be allowed to recover its cost of capital on amounts the Company invests over time to fulfill its remediation obligations?

A. Yes, he maintains that position and argues that the Company should only be able to recover its cost of debt as the cost the Company incurs when it uses its funds to pay for environmental mitigation.

Q. In his reply testimony, does Mr. Larkin offer any new rationale for his argument?

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A. He clarifies his position somewhat. In his opening testimony, Mr. Larkin had asserted that the Company would not have to use equity to finance ongoing environmental expenses, which I refuted in my reply testimony. *See* NWIGU-CUB/100 Larkin 53; NWN/2600 Miller/17-18. In his rebuttal testimony, Mr. Larkin now clarifies: "My position is not concerned with how the expenses are financed but instead the level of risk involved and, the resulting rate at which the investment should be recovered." NWIGU-CUB/200 Larkin/29. He now appears to be clarifying that his position is not that the Company incurs costs below its cost of capital when it uses funds to pay for environmental mitigation. Rather, he is seeking to allow recovery of some level less than the Company's Commission-determined cost of capital based on his notion of the rate at which the investment "should be recovered."

To the extent that Mr. Larkin's position is based on an idea that NW Natural has committed a wrong by either manufacturing gas or complying with its mitigation obligations, and therefore that the Commission should allow some recovery that is less than the Company's actual costs, I have addressed those arguments above.

He also goes on to explain that the rate of return allowed to the Company is related to the level of risk involved, and asserts that if the Commission allows recovery of environmental mitigation costs, that there is virtually no risk to the Company. NWIGU-CUB/200 Larkin/30. However, as I have explained before, NW Natural is proposing to recover only prudently incurred costs, and acknowledges that the Commission will retain the power to review costs for prudency. Certainly there is risk associated with NW Natural's environmental expenses through this review process, similar or even greater

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than that of other investments NW Natural makes, and upon which it earns its cost of capital.[6]

III. OTHER ISSUES AND ALTERNATIVES

Q. Did Staff or any other party provide rebuttal testimony responding to NW Natural's Reply Testimony on the topic of environmental remediation?

A. No they did not.

Q. Does NW Natural have any additional or alternative ideas for how the Commission should address the issues related to NW Natural's recovery of environmental remediation expenses?

A. As described in this and my other testimony, NW Natural has proposed a reasonable and well-considered mechanism and approach for addressing the recovery of remediation costs related to historic manufactured gas operations, and the Commission should adopt this proposal. This proposal allows the recovery of only prudently incurred costs, and allows the Commission and parties ongoing review of NW Natural's actions.

If, however, the Commission believes that further work should be done to address the parties' arguments that NW Natural somehow lacks sufficient incentives to perform its remediation obligations in a cost-effective manner, then NW Natural would be agreeable to participation in a follow up docket in the future, after the environmental

[6] Mr. Larkin's argument also appears to be somewhat circular and illogical. He states that where the Commission has authorized recovery, there is no risk to the Company. Then at the same time, he states that even where a utility is deemed to have incurred an imprudent expense, such that it is not recoverable, there is no risk to the Company in that event either. *See* CUB-NWIGU/200 Larkin 30 ("The fact that the Company cannot recover imprudent costs, does not increase its risks. Imprudent costs are never recoverable."). Under Mr. Larkin's theory, then, utilities never have any cognizable risk regarding their business—an approach that is inconsistent with any functioning regulatory approach.

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agencies' final Records of Decision regarding clean up obligations is established. At that time, NW Natural would have more clarity about its ultimate remediation obligations (rather than what, to date, has primarily been study and assessment obligations). At that time, the Commission could determine whether, with the benefit of new information, it could develop cost and timing targets for completion of the work, or specific projects. If such targets could be established, then a fair and well-reasoned incentive mechanism may be able to be created that would incentivize meeting or exceeding those targets and that would provide for the symmetry of risks and potential rewards that would be lacking under a blanket sharing approach. Such a mechanism would, of course, need to be tailored to the realities that attend the clean-up process, which may include changes in scope and schedule based on agency actions. This follow up docket does not substitute for, but would be in addition to NW Natural's recovery mechanism proposed in this case.

Additionally, I will state that so long as the Commission allows the Company recovery of its carrying costs at the cost of capital it determines for the Company, the Company would be open to decreasing the portion of the deferral balance that is amortized each year under the Company's proposed Site Remediation Recovery Mechanism, and would suggest a modification from one-fifth to one-seventh of the balance. Although this modification would have some negative impact on the Company's liquidity, it would allow for a way to mitigate the rate impact to customers from the adoption of the mechanism.

Q. Does this conclude your testimony?

A. Yes it does.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Keith White

INTERSTATE STORAGE AND OPTIMIZATION
EXHIBIT 3800

August 9, 2012

EXHIBIT 3800 – SURREBUTTAL TESTIMONY – INTERSTATE STORAGE AND OPTIMIZATION

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I. INTRODUCTION AND SUMMARY

Q. Please state your name.

A. Keith White.

Q. Are you the same Keith While who filed reply testimony in this case on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company")?

A. Yes. My reply testimony was filed as NWN/2700.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to rebuttal testimony of Commission Staff ("Staff") witness Ken Zimmerman, and the Citizens' Utility Board of Oregon's (CUB) witnesses Bob Jenks and Gordon Feighner regarding the NW Natural's interstate storage and optimization activities, and in particular, their recommendations for changes to the current sharing of margins from those activities between customers and the Company's shareholders.

Q. Please summarize your surrebuttal testimony.

A. In my surrebuttal testimony I:

- Summarize my comments and recommendations from my reply testimony;
- Summarize and respond to Staff's and CUB's recommendations for changes to sharing percentages for interstate storage and optimization activities from their rebuttal testimony;
- Respond to Staff's recommendation that the Commission order an independent study; and
- Offer an alternative process for stakeholder discussions regarding interstate storage and optimization sharing.

Q. Please summarize the Company's comments and recommendations from your reply testimony.

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A. In my reply testimony, I provided background on the history of the Company's Mist non-utility storage services (storage services not included in customer rates), and its optimization of core customer assets, that are the subject of Schedules 185 and 186. I described the benefits that NW Natural's customers have realized from these activities and I explained why the Commission should continue the current sharing of margins from these activities between the Company and its customers. I also explained why I do not agree that an independent study of storage and optimization activities would be particularly helpful, and instead I suggested that the parties meet informally to share information and perspectives.

Q. Please review the current sharing percentages for the margins from the Company's interstate storage and optimization activities.

A. The current sharing percentages prescribed in Schedule 185 for profits associated with the Mist storage facility are as follows:

- 20/80 (with 20 percent shared with customers and 80 percent retained by the Company) for the net margins received from interstate and intrastate storage services not included in rates;
- 20/80 (with 20 percent shared with customers and 80 percent retained by the Company) for the net margins attributable to the optimization of Mist storage capacity not included in rates;
- 67/33 (with 67 percent shared with customers and 33 percent retained by the Company) for the net margins attributable to the optimization of core Mist capacity that is included in rates.

The current sharing percentages prescribed in Schedule 186 for margins associated with optimization of non-Mist storage and upstream pipeline and gas

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processing activities associated with facilities included in rates is 67/33 (with 67 percent shared with customers and 33 percent retained by the Company).

Q. Can you summarize these sharing arrangements?

A. Yes. The current framework allows for 67/33 sharing for margins flowing from activities that utilize assets that are included in core customer rates, and 20/80 for margins flowing from activities primarily paid for by shareholders.

Q. Please describe Staff's position presented in its rebuttal testimony.

A. In its rebuttal testimony, Staff modified its original sharing proposal to the following:

- Moved from 90/10 to 80/20 for optimization of resources that are included in core customer rates.
- Kept 50/50 for Interstate Storage Services, whose incremental costs are not included in core customer rates.
- Revised its justification for its recommendation that there be an independent study of Mist and related issues.

Q. Please describe CUB's position.

A. CUB supports Staff's opening testimony proposal for 90/10 sharing for optimization of core customer resources. CUB does not comment on Staff's proposal for sharing with respect to nonutility storage and capacity optimization sharing or the need for an independent study.

Q. How will you organize your response?

A. Rather than respond separately point-by-point to each of the other parties' rebuttal testimony, I organize my comments around the three main issue areas that have been raised for consideration:

- Sharing on optimization of resources in core customer rates.

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- Sharing on Interstate Storage Services and the optimization of that capacity.
- Need for an independent study, or alternative process.

Finally, I describe a variation to the alternative I previously presented in my reply testimony that I would recommend to the Commission for consideration.

II. SHARING ON OPTIMIZATION OF RESOURCES IN CORE CUSTOMER RATES

Q. What sharing are Staff and CUB now recommending for the optimization of resources in core customer rates?

A. The parties' positions have evolved with CUB supporting Staff's former position of 90/10 and Staff now advocating for 80/20.

Q. What arguments does CUB make in support of its proposal?

A. CUB suggests NW Natural's optimization activities are similar to the activities of an electric utility, which is expected to sell in the market generation that is not currently needed for customer load. CUB points out that since electric utilities earn a regulated rate of return on their generation resources, that return is deemed to be adequate compensation, and they are therefore expected to optimize without needing any further incentive. CUB argues that NW Natural's optimization activities should be treated similarly.

Q. Please respond to CUB's argument.

A. The analogy to electric utility generation is a poor one. First, gas and electric utilities are not similarly situated with respect to rate base resources. Electric utilities are vertically integrated and own their own generation, or production. Gas utilities are not vertically integrated and, generally, do not own their own production. The one exception happens to be NW Natural's recent Encana gas reserves acquisition, which is intended to gradually ramp-up to about 10% of the Company's gas supply portfolio over the next ten

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years. While Mist storage is a rate base investment and would be equivalent to an electric peaking facility by analogy, it is modest in relation to the investment a fully vertically integrated electric utility has.

Q. On what do you base your last statement regarding the relative rate base investments of electric utilities and local distribution companies (LDCs)?

A. To compare the relative rate base earnings power of electric utilities and gas LDCs, we can look at the comparative net capital investment per customer that Portland General Electric Company (PGE) has in generation and transmission assets to that which NW Natural has in Mist, related transmission, and its Encana reserves. The attached Exhibit NWN/3801 shows the relative investments per customer for PGE and NW Natural, taken from the companies' respective FERC Form 1 and 2s. As of year-end 2011, they were:

- PGE $2,363 / customer
- NW Natural $319 /customer

While these are not precise rate base figures, given that these net investment figures from the companies' FERC Form 1 and 2, respectively, have not been adjusted for deferred tax balances, they do illustrate the order of magnitude of difference of about 7.5-to-1.

Clearly, NW Natural does not have the rate base earnings opportunity from generation-type assets as does an electric utility. Moreover, this fundamental difference between electric and gas utilities is further reflected in how different their respective Power Cost Variance Mechanism and Purchased Gas Adjustment mechanisms are structured.

- PGE retains 100% of any power cost variance within a ($15 million) to $30 million deadband. Subject to an earnings test, variances outside this deadband must be

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shared on a 90/10 basis, where customers pay for or are credited for 90% of the variance.

- In contrast, NW Natural has available to it either 80/20 or 90/10 sharing from the beginning. One reason why sharing starts right away for gas LDCs is because they do not have an equivalent supply side rate base earnings base to help cushion the cost variance.

Q. You said that there are two reasons why the comparison to electrics is a poor one. What is the second reason?

A. The electric utility actually retains 100% of any power cost variation or optimization savings up until it hits the deadband limit, and the 90/10 sharing with customers that electrics have only kicks in after they have cleared the deadband zone.

Q. What is your conclusion regarding CUB's recommendation?

A. My conclusion continues to be that the best reference point for considering the lower threshold for shareholder sharing is the 80/20 that is available to the Company in its normal gas supply activities. I would also continue to assert that this third party optimization, which is the subject of Schedule 186, goes beyond what utilities—gas or electric—are able to do within their normal operations. Hence, some level of sharing above the low end of the 80/20 to 67/33 reasonable range is appropriate.

Q. What is your response to Staff's proposal to move from 90/10 to 80/20 on both Schedules 185 and 186 for optimization of resources included in core customer rates?

A. In making this proposal Staff has at least moved to within the low end of the reasonable range of sharing. However, Staff's testimony suggests that there may continue to be some misunderstandings by Staff.

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Q. What are these misunderstandings?

A. The first concerns Staff's contention that in moving toward 80/20 sharing, they looked at the relative proportions of utility and non-utility investments for Mist. Staff's supporting analysis has several problems. Most importantly, the analysis is essentially an apples-to-oranges comparison. Staff takes utility storage and transmission investment and compares it to storage only for the non-utility. This method excludes non-utility transmission and distribution investment that is not in core customer rates. Using Staff's work papers (See Exhibit NWN/3802), if we make a consistent comparison for Mist storage investment, then as of year-end 2011, utility investment is $48 million in comparison to non-utility investment of $40.7 million. This equates to approximately 54% of Mist's investment as utility, and 46% as non-utility. If we were to make the comparison including transmission investment for both, we would get different relative proportions; however it is Mist capacity that has the greatest optimization value—not the LDC transmission investment.

Second, as I indicated, it is the Mist *capacity* that we are able to optimize, not the *financial investment*. Therefore, what is relevant in allocating margin is the respective proportions of capacity that is utility versus non-utility, and not their respective investments. Currently, of Mist's total rated capacity of 520,000 Dtherms per day, 275,000 is utility with the remainder non-utility. Thus, 53% of Mist's capacity is utility, and 47% is non-utility.

Third, there still appears to be some misunderstanding on Staff's part regarding how Schedule 185 is determined. Under the current sharing agreement, the Company takes the total optimization margin from Mist and allocates it between utility and non-

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utility. Using the 2012 capacity proportions I just indicated, customers would receive 67% sharing on the 53% utility proportion and 20% on the 47% non-utility proportion.

Q. Are there any other problems with Staff's analysis?

A. Yes, there are two problems with Table 2 (Staff/1900 Zimmerman/10-11) that indicate additional misunderstandings.

Q. What are these?

A. First, in the bottom row of Table 2 titled "Upstream optimization not related to Mist," Staff has stated that these activities are not currently included in Schedules 185 and 186. This is not correct. Schedule 186 pertains only to these activities. All Mist related activities are governed by Schedule 185; none show up in Schedule 186. I assume with this correction that Staff would extend the 80/20 to also apply to these activities not related to Mist.

Second, in the next to bottom row titled "Optimization of interstate storage capacity," Staff has stated that these activities are not currently included in Schedules 185 and 186. This is not correct. Currently, margins from Mist storage optimization are allocated between Core and Interstate based on their respective percent of deliverability capacity. It is not clear from Staff's testimony whether it intends to allocate 100% of Mist capacity optimization to core or simply that the sharing retained by shareholders for Interstate capacity not in rates is simply zero.

III. SHARING ON INTERSTATE STORAGE SERVICES AND OPTIMIZATION OF THAT PORTION OF MIST CAPACITY

Q. Please respond to Staff's continued recommendation that sharing on Interstate Storage and its optimization should be changed from the current 20/80 to 50/50.

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A. Staff's proposal is troubling for three major reasons. First, it is important that Staff provides no justification as to why core customers are entitled to a greater sharing on investments that they are not taking any risk on, are not paying any incremental costs on as well as benefitting from the ability to recall in the future at depreciated book cost. Second, Staff's proposal would dramatically alter the deal after the fact. As of year-end 2011, the Company had made a $58 million at-risk capital investment not included in retail rates based on the good faith assumption that the sharing was 20/80. If the sharing were 50/50, the Company would not have made these discretionary investments. In other words, customers would receive 50% of zero. And third, it would no longer be profitable to continue to make investments in Mist expansions. The Company would begin to exit this business activity. Staff's proposal is so extreme that it would "kill the golden goose" and leave both customers and shareholders worse off.

Q. In Table 3, Staff provided a comparison of the current sharing structure with those proposed within this case. Please address the information in that table.

A. There are several problems with the information contained in Staff Table 3 (Staff/1900 Zimmerman/12):

- ***Staff has made some basic errors in its calculations that undermine his comparison of the alternatives.*** For the current methodology, it appears that in manipulating the three-year reporting information provided by the Company, Staff took the total margin and subtracted only the Oregon customer sharing. To correctly calculate the Company's share of the margins, Staff should either take the Oregon margin allocation and then subtract the Oregon sharing—or, if it wants the Company's system total, it should additionally subtract the sharing with Washington customers in its numbers.

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For the other three alternatives, Staff has applied the sharing percentages to the system total. This approach inappropriately assumes that the Washington sharing is identical to whichever alternative this Commission selects—when in fact the Washington Commission will make its own determination on this point. Instead, it would have been more appropriate for Staff to look at Oregon's jurisdictionally-allocated numbers.

- ***Staff has misstated the result of my alternative sharing proposal.*** Table 3 reflects a $2 million difference between the current sharing and the alternative proposal I made in my reply testimony. This is incorrect. I designed my alternative to be revenue-neutral and supplied a supporting exhibit demonstrating this aspect of the proposal. In examining Staff's work papers (See Exhibit NWN/3802), it appears that the main reason for Staff's miscalculation is that they mistakenly used 2009 figures for 2011. Because storage services and optimization margins were considerably lower in 2011 than 2009 and 2010, the results of Staff's three-year average are too low in relation to the other alternatives.
- ***Return on investment is misstated.*** Not only do the errors in the revenue margins carry over into the return on investment calculations, but Staff has made a fundamental error in calculating hypothetical returns. Staff has started with a 10.24 return on equity (ROE) (presumably representative of NW Natural's historical ROE) and added the additional return from the Company's storage services and optimization margin it retains divided by Mist storage and transmission investment. In so doing, Staff has erroneously included non-utility Mist investment that is not included in core customer rates earning 10.24%. The

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margin it retains needs to cover the full at-risk non-utility investment. It is not added on top of a 10.24% regulated return.

- **Staff incorrectly lumps Interstate Storage Services and optimization margins together in calculating return on Mist investment**. In calculating the Mist investment for the purposes of its return table, Staff has lumped together the returns from three discrete business activities. This is particularly problematic in that the vast majority of optimization revenue is not Mist-related at all. Discretionary non-utility capital investments in Mist expansions need to be financially justified based upon what return that specific investment will produce It cannot be justified based on cross-subsidies from other unrelated activities.

Q. Have you recalculated the values contained in Staff's Table 3, based upon your criticisms?

A. No, the Company has not undertaken this task for two reasons. First, as a practical matter, it took us some time—including a review of data responses we received just a few days ago—to understand the genesis of the problems in Staff's calculations. Once we understood what Staff had done, we did not have time to prepare a correction. However, more importantly, we don't find the analysis to be relevant to Staff's proposal to reduce the Company's percentage of margins. With respect to those investments we have already made, Staff is proposing to change our deal after the fact. The fact is that if the Company had known that it would be required to share 50% of the margins from the nonutility investment, we would not have made the investment. On that basis alone, the Commission should reject Staff's proposal, at least for revenues flowing from past investments. Moreover, Staff's apparent endeavor to calculate how much the Commission could lower the Company's *current* non-rate base investment before we

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would choose not to invest in the *future* is off base. Each new investment must be justified on its own merits; and, as I explained in my reply testimony, new expansions will be much more expensive than capacity developed to date. The 20/80 sharing is a "cost" when we consider the return on these discretionary investments. If we want to grow and not shrink the economic pie, then we need to be looking at the returns on new investments, not old investments already made.

Finally, and, in some ways most troubling, Staff is fundamentally off base in how they are addressing the sharing question. It appears to me that they are inappropriately focused on taking away from Company shareholders, when they should be focusing on the best interests of customers. Adopting this orientation would mean giving full consideration to how to encourage making the economic pie bigger rather than arguing for a bigger slice of a pie that their proposal would cause to shrink.

Staff has continued to ignore the substantial benefit flowing from shareholders to ratepayers from core customers having the ability to recall Mist capacity when needed at depreciated book cost. If this benefit is taken into account, it would suggest that if we are going to revise the original deal by increasing customer sharing on resources in core rates, then it should be offset by a decrease in customer sharing on interstate capacity investments not included in rates.

Q. Have you offered an alternative proposal designed to benefit both customers and shareholders by increasing the economic pie?

A. Yes. In my reply testimony I proposed two principles that could be used to judge the merits of any sharing proposal, and I offered an alternative to the current sharing percentages that I believed would satisfy these principles. Specifically, I testified that any sharing proposal should incentivize increasing the size of the economic pie and be

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perceived as fairly allocating benefits between shareholders and customers. Accordingly, I offered an alternative proposal to revise sharing as follows:

Optimization of resources in customer rates:	67/33 to 75/25
Interstate Storage Services and optimization:	20/80 to 10/90

I believe that my alternative satisfies both principles.

Q. Why do you think your proposal satisfies your principles while Staff and CUB's proposals do not?

A. First, I would point out that neither Staff nor CUB has argued that their proposals would increase the economic pie or that their proposals should be perceived as fair by the Company. On the other hand, in my alternative, I attempted to improve the economic incentives while also relatively adjusting the customer/shareholder sharing percentages to yield an overall revenue neutral outcome, rather than redefine the sharing to favor one side over the other.

Q. Do you have another alternative to propose?

A. Since submitting my reply testimony and after reading Staff's and CUB's rebuttal testimony, I have given this some further thought. If we dismiss Staff's "lose/lose" proposal for 50/50 sharing on Interstate investments, it seems to me that the real issue relates to the sharing on third-party optimization of resources in core customer rates.

Back when the current deal was agreed to, the Company's weighted average cost of gas (WACOG) sharing in the PGA was 67/33. This was probably a dominant factor in why the deal felt "fair" to all parties and was considered a sufficient incentive. What has changed is that today the Company has 80/20 sharing available to it in the PGA and under Schedule P for pipeline capacity release optimization it were to do itself.

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From that perspective, I can understand why the parties have questioned the current 67/33.

In so doing, however, I feel we also need to consider it within the context of the sharing on Interstate Storage investments. Because we are now facing much higher cost expansions at Mist than in the past, the 20/80 sharing has become a barrier to future development as well as sharing an overly disproportionate amount with customers, I would argue that this needs to be factored into any potential revision that still retains the goal of being "win/win." This is why I sought to find revenue neutral options consistent with my two proposed principles.

With that in mind, I would recommend a variation of my earlier proposal for consideration by the Commission.

Optimization of resources in customer rates:	80/20 on the first $10 million
	67/33 on margin > $10 million
Interstate Storage Services and optimization:	10/90

See NWN/3803 White.

Q. Why does this alternative make sense?

A. For two reasons. First, while slightly better for customers (as measured over the last three years) relative to the current sharing and my earlier proposal, it is still relatively revenue neutral. See Exhibit NWN/2703. Second, by creating two tiers of sharing on core resource optimization it aligns the 80/20 sharing applied to most of the optimization with the sharing that is available to the Company in its other gas supply activities while preserving the full 67/33 incentive in the current sharing for optimization on the margin. For perspective, in 2011, the optimization margin from core resource optimization was only a little greater than $10 million.

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IV. NEED FOR INDEPENDENT STUDY

Q. Staff in its rebuttal testimony continues to recommend an independent study of Mist costs and benefits. Are you convinced an independent study would be helpful?

A. No I am not. Staff has failed to either define the scope of the study it feels it needs or explain what information it currently lacks. While Staff wants to wait to define the "parameters" of a study for a later date, by being unable to define the scope of work it is hard to see the value of bringing in a third party. Moreover, the Company currently provides annual financial reporting on these activities to the Commission. Staff has not articulated what further information it needs.

To be clear, the Company is not adverse to the Commission ordering an independent study if it feels one is required. However, I fail to see what value it would serve.

Q. If you do not believe an independent study would be helpful, is there an alternative approach you would suggest?

A. Yes. I suggest face-to-face meetings among the stakeholders. I would point out that the current sharing agreements were reached through direct negotiations, and I would think that a similar process should be engaged if we are to adjust the percentages. Moreover, it is clear from the testimony that there are some misunderstandings regarding the facts. As I suggested in my reply testimony, I believe that the best way to build institutional knowledge is through direct involvement.

I think the difficulty we are confronting is that it has been a long time—over 10 years—since the current sharing was negotiated in good faith. It's also been nearly as long since the Company was in for a rate case. We don't have any defined process for

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the parties to convene to periodically review results and have a two-way dialogue over whether any revisions would be beneficial.

Q. Do you have a specific recommendation for a process?

A. The Commission could direct the parties to initiate an informal workgroup to review historic results, discuss future threats and opportunities, assess potential sharing structures and negotiate a recommended structure going forward. The parties would be tasked to report back to the Commission within twelve months of when new rates are scheduled to go into effect. If the parties are unable to agree, the Commission could then establish a formal docket to consider the issue. If the Commission elects for this approach, it would probably make sense to leave the sharing as it currently is since the parties will be coming back within a year.

Alternatively, the Commission could establish a standing requirement that an informal workgroup be convened every five years in order to have a systematic review outside of the more adversarial rate case process. If the Commission is comfortable that based on this rate case record that the sharing should either remain the same, or be revised to either of the Company's alternative proposals that is net revenue neutral, then the Company would support it do so and then set 2016 as the year for the parties comprehensive review and report back to the Commission.

Q. Does this conclude your testimony?

A. Yes.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Exhibits of Keith White

INTERSTATE STORAGE AND OPTIMIZATION EXHIBITS 3801 – 3803

August 9, 2012

EXHIBITS 3801-3803 – INTERSTATE STORAGE AND OPTIMZATION

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UG 221: Oregon General Rate Case
Interstate Storage - Comparative Electric-Gas Investments per Customer
2011

Portland General Electric [1]			Northwest Natural Gas [2]		
Gross Plant			Gross Plant		
Generation	$	2,848,814,412	Production	$	675,198
Transmission	$	392,358,542	Mist UG Storage	$	84,539,254
sub-total	$	3,241,172,954	LNG Storage	$	35,087,863
			Transmission (Storage)	$	155,179,586
			Gas Reserves	$	36,300,000
			sub-total	$	311,781,901
Accumulated Depreciation			Accumulated Depreciation		
Generation	$	(1,126,322,446)	Production	$	(691,036)
Transmission	$	(169,731,883)	Mist UG Storage	$	(36,213,072)
sub-total	$	(1,296,054,329)	LNG Storage	$	(24,867,895)
			Transmission (Storage)	$	(34,076,579)
			Gas Reserves		
			sub-total	$	(95,848,582)
Net Investment	$	1,945,118,625	Net Investment	$	215,933,319
Average Customers		823,171	Average Customers		676,770
Net Investment / Customer		**$2,363**	**Net Investment / Customer**		**$319**

(1) Source: PGE 2011 FERC Form 1.

(2) Sources: NWN 2011 FERC Form 2 for Storage and Transmission investment.
NWN 2011 10-K page 103 for Gas Reserves investment.
NWN 2011 annual report for customers (average of 2010 and 2011 year-end customers).

DR 370 -375

Mist Storage Facility System Balances, 2003 through 2011

Note: The amounts "Allocated to Oregon" are generally 90% of these System Balances.

FERC Plant Account	ASSET BALANCES	BALANCE @ 12/31/2011	BALANCE @ 12/31/2010	BALANCE @ 12/31/2009	BALANCE @ 12/31/2008	BALANCE @ 12/31/2007
UTILITY PLANT (SYSTEM BALANCES)						
Natural Gas Underground Storage						
350.1	LAND	$ 106,549	$ 106,549	$ 106,549	$ 106,549	106,549
350.2	RIGHTS-OF-WAY	109,625	109,625	109,625	109,625	51,122
351	STRUCTURES AND IMPROVEMENTS	6,555,425	6,555,425	6,542,426	6,538,592	6,247,670
352	WELLS	20,047,076	20,047,076	20,041,504	20,041,504	20,041,504
352.1	STORAGE LEASEHOLD & RIGHTS	3,538,491	3,538,491	3,538,491	3,538,491	3,538,491
352.2	RESERVOIRS	5,130,395	4,654,246	4,654,246	4,178,097	3,701,948
352.3	NON-RECOVERABLE NATURAL GAS	6,440,890	6,440,890	6,440,890	6,440,890	6,440,890
353	LINES	6,552,220	6,552,220	6,552,220	6,552,220	6,553,282
354	COMPRESSOR STATION EQUIPMENT	27,957,660	27,431,454	27,422,924	27,090,280	26,981,225
355	MEASURING / REGULATING EQUIPM	6,471,635	6,318,797	6,318,797	6,165,959	5,687,193
356	PURIFICATION EQUIPMENT	297,363	297,363	297,363	297,363	297,363
357	OTHER EQUIPMENT	1,331,924	1,331,924	1,331,924	1,218,731	702,587
	Natural Gas Utility Underground Storage Subtotal	$ 84,539,254	$ 83,384,061	$ 83,356,960	$ 82,278,300	80,349,825
Transmission Plant						
367.21	NORTH MIST TRANSMISSION LINE	1,993,874	1,563,157	1,563,157	1,563,157	1,514,343
367.22	SOUTH MIST TRANSMISSION LINE	14,949,264	14,949,264	14,949,264	14,949,264	14,949,264
367.23	SOUTH MIST TRANSMISSION LINE	34,007,331	34,007,331	34,007,331	34,007,331	34,007,331
367.24	11.7M S MIST TRANS LINE	17,466,182	17,466,182	17,466,182	17,466,182	17,466,182
367.25	12M NORTH S MIST TRANS	18,530,259	18,530,259	18,530,259	18,530,259	18,530,259
367.26	38M NORTH S MIST TRANS	68,232,676	68,232,676	68,232,676	68,232,676	68,232,676
	Mist Utility Transmission Plant Subtotal	$ 155,179,586	$ 154,748,868	$ 154,748,868	$ 154,748,868	154,700,055
	Total Mist Utility SYSTEM BALANCES	$ 239,718,840	$ 238,132,929	$ 238,105,828	$ 237,027,168	$ 235,049,879
NON-UTILITY PLANT (SYSTEM BALANCES)						
Natural Gas Underground Storage						
352	WELLS	$ 16,792,086	16,792,086	16,791,221	15,960,717	16,286,242
352.1	STORAGE LEASEHOLD & RIGHTS	1,020	1,020	1,020	1,020	1,020
352.2	RESERVOIRS	5,686,159	6,162,308	6,162,308	6,638,457	7,114,606
353	LINES	1,649,744	1,649,744	1,649,744	1,649,744	1,688,608
354	COMPRESSOR STATION EQUIPMENT	15,163,121	14,759,826	14,691,773	14,954,876	14,954,876
355	MEASURING / REGULATING EQUIPMENT	8,872,031	8,656,907	8,589,046	8,741,884	8,637,541
357	OTHER EQUIPMENT	63,256	63,256	63,256	-	-
121.8	NON-UTIL PROP-STORAGE	384,149	448,174	448,174	512,199	576,224
	Total Mist Non-Utility SYSTEM BALANCES	$ 48,611,565	$ 48,533,321	$ 48,396,542	$ 48,458,897	$ 49,259,117
	Total Mist Utility and Non-Utility SYSTEM BALANCES	$ 288,330,405.05	$ 286,666,250.13	$ 286,502,369.83	$ 285,486,065.51	$ 284,308,996.60

FERC Plant Account	ACCUMULATED DEPRECIATION	BALANCE @ 12/31/2011	BALANCE @ 12/31/2010	BALANCE @ 12/31/2009	BALANCE @ 12/31/2008	BALANCE @ 12/31/2007
UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)						
Natural Gas Underground Storage						
350.1	LAND	$ -	$ -	$ -	$ -	-
350.2	RIGHTS-OF-WAY	18,040	16,264	14,488	12,712	11,641
351	STRUCTURES AND IMPROVEMENTS	2,072,376	1,960,279	1,848,227	1,736,354	1,626,182
352	WELLS	9,315,665	8,900,691	8,485,827	8,070,968	7,595,984
352.1	STORAGE LEASEHOLD & RIGHTS	1,230,738	1,161,738	1,092,737	1,023,737	965,352
352.2	RESERVOIRS	1,245,146	1,068,560	975,010	826,577	705,485
352.3	NON-RECOVERABLE NATURAL GAS	2,714,352	2,593,263	2,472,175	2,351,086	2,244,811
353	LINES	2,366,202	2,231,190	2,096,214	1,961,016	1,839,799
354	COMPRESSOR STATION EQUIPMENT	12,943,818	12,047,560	11,317,669	10,525,872	9,692,012
355	MEASURING / REGULATING EQUIPM	3,442,995	3,256,945	3,119,827	2,943,698	2,728,754
356	PURIFICATION EQUIPMENT	188,197	180,823	173,448	166,074	156,409
357	OTHER EQUIPMENT	675,543	645,176	614,805	585,650	529,243
	Natural Gas Underground Storage Subtotal	$ 36,213,072	$ 34,062,488	$ 32,210,428	$ 30,203,743	28,095,672
Transmission Plant						
367.21	NORTH MIST TRANSMISSION LINE	829,551	789,834	750,599	711,257	682,750
367.22	SOUTH MIST TRANSMISSION LINE	8,462,518	8,094,602	7,726,850	7,358,082	7,081,521
367.23	SOUTH MIST TRANSMISSION LINE	8,118,755	7,210,387	6,302,391	5,392,085	4,752,747
367.24	11.7M S MIST TRANS LINE	3,010,007	2,557,441	2,105,067	1,651,506	1,323,142
367.25	12M NORTH S MIST TRANS	2,878,823	2,394,980	1,911,340	1,426,441	1,077,924
367.26	38M NORTH S MIST TRANS	10,776,925	9,002,128	7,228,078	5,449,392	4,166,072
	Mist Transmission Plant Subtotal	$ 34,076,579	$ 30,049,372	$ 26,024,326	$ 21,988,765	$ 19,084,156
	Total Mist Utility Accum. Depreciation Balances	$ 70,289,651	$ 64,111,860	$ 58,234,753	$ 52,192,508	$ 47,179,828
NON-UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)						
Natural Gas Underground Storage						
352	WELLS	$ 1,846,599	1,499,003	1,151,424	808,860	423,290
352.1	STORAGE LEASEHOLD & RIGHTS	102	82	62	42	25
352.2	RESERVOIRS	871,686	834,365	714,200	649,025	591,971
353	LINES	185,289	151,295	117,311	83,270	52,099
354	COMPRESSOR STATION EQUIPMENT	3,832,043	3,604,712	3,213,836	2,884,348	2,422,242
355	MEASURING / REGULATING EQUIPM	1,199,168	1,059,874	873,435	725,810	493,784
357	OTHER EQUIPMENT	2,945	1,502	60	-	-
121.8	NON-UTIL PROP-STORAGE				-	-
	Total Mist Non-Utility Accum. Depreciation Balances	$ 7,937,831	$ 7,150,833	$ 6,070,328	$ 5,151,354	$ 3,983,412
Total Mist Utility and Non-Utility Accum Dep'n. SYSTEM BALANCES		$ 78,227,481	$ 71,262,693	$ 64,305,081	$ 57,343,862	$ 51,163,240

FERC Plant Account	NET BOOK VALUE		BALANCE @ 12/31/2011		BALANCE @ 12/31/2010		BALANCE @ 12/31/2009		BALANCE @ 12/31/2008		BALANCE @ 12/31/2007
UTILITY PLANT NET BOOK VALUE (SYSTEM)											
Natural Gas Underground Storage											
350.1	LAND	$	106,549	$	106,549	$	106,549	$	106,549	$	106,549
350.2	RIGHTS-OF-WAY		91,585		93,361		95,137		96,913		39,481
351	STRUCTURES AND IMPROVEMENTS		4,483,049		4,595,146		4,694,199		4,802,237		4,621,488
352	WELLS		10,731,411		11,146,385		11,555,677		11,970,536		12,445,520
352.1	STORAGE LEASEHOLD & RIGHTS		2,307,753		2,376,753		2,445,754		2,514,755		2,573,140
352.2	RESERVOIRS		3,885,249		3,585,686		3,679,236		3,351,521		2,996,463
352.3	NON-RECOVERABLE NATURAL GAS		3,726,538		3,847,626		3,968,715		4,089,804		4,196,079
353	LINES		4,186,019		4,321,030		4,456,006		4,591,204		4,713,483
354	COMPRESSOR STATION EQUIPMENT		15,013,843		15,383,894		16,105,255		16,564,407		17,289,213
355	MEASURING / REGULATING EQUIPM		3,028,640		3,061,852		3,198,970		3,222,260		2,958,439
356	PURIFICATION EQUIPMENT		109,166		116,540		123,915		131,289		140,954
357	OTHER EQUIPMENT		656,381		686,749		717,119		633,081		173,344
	Natural Gas Underground Storage Subtotal	$	48,326,182	$	49,321,573	$	51,146,532	$	52,074,557		52,254,152
Transmission Plant											
367.21	NORTH MIST TRANSMISSION LINE		1,164,323		773,323		812,558		851,899		831,593
367.22	SOUTH MIST TRANSMISSION LINE		6,486,746		6,854,662		7,222,414		7,591,182		7,867,743
367.23	SOUTH MIST TRANSMISSION LINE		25,888,576		26,796,944		27,704,940		28,615,246		29,254,584
367.24	11.7M S MIST TRANS LINE		14,456,175		14,908,740		15,361,115		15,814,675		16,143,040
367.25	12M NORTH S MIST TRANS		15,651,436		16,135,280		16,618,919		17,103,818		17,452,335
367.26	38M NORTH S MIST TRANS		57,455,750		59,230,548		61,004,598		62,783,283		64,066,603
	Mist Transmission Plant Subtotal	$	121,103,007	$	124,699,497	$	128,724,543	$	132,760,104	$	135,615,899
	Total Mist Utility Net Book Value	$	169,429,189	$	174,021,070	$	179,871,075	$	184,834,660	$	187,870,051
NON-UTILITY PLANT NET BOOK VALUE											
Natural Gas Underground Storage											
352	WELLS	$	14,945,487	$	15,293,083	$	15,639,797	$	15,151,858	$	15,862,952
352.1	STORAGE LEASEHOLD & RIGHTS		919		938		958		978		995
352.2	RESERVOIRS		4,814,474		5,327,943		5,448,108		5,989,432		6,522,635
353	LINES		1,464,455		1,498,448		1,532,433		1,566,474		1,636,509
354	COMPRESSOR STATION EQUIPMENT		11,331,078		11,155,115		11,477,936		12,070,528		12,532,634
355	MEASURING / REGULATING EQUIPM		7,672,863		7,597,033		7,715,612		8,016,075		8,143,757
357	OTHER EQUIPMENT		60,312		61,754		63,196		0		0
121.8	NON-UTIL PROP-STORAGE		384,149		448,174		448,174		512,199		576,224
	Total Mist Non-Utility Net Book Value	$	40,673,735	$	41,382,487	$	42,326,214	$	43,307,543	$	45,275,705
Total Mist Utility and Non-Utility Net Book Value		$	210,102,924	$	215,403,557	$	222,197,289	$	228,142,203	$	233,145,756
	CHECK FIGURE		210,102,924		215,403,557		222,197,289		228,142,203		233,145,756
			80.64%								
			19.36%								
	% Investment Utility Plant		80.64%		80.79%		80.95%		81.02%		80.58%
	% Investment Non-Utility Plant		19.36%		19.21%		19.05%		18.98%		19.42%

ROE for utiltiy storage balance	28.35%	36.42%	32.89%
ROE for utiltiy storage balance - with trans.	8.09%	10.32%	9.35%
Average			32.55%
Average - with trans.			9.25%
based on after tax income from all storage off-system sales and optimization acivities			

ROE for utiltiy storage balance - util & non-util all in	6.52%	8.34%	7.57%
Average - all in			7.48%

General ROE on Rate Base	10.24%	10.24%	10.24%
Total ROE on Mist Storage	16.76%	18.58%	17.81%
Avg. Total ROE			17.72%

185/186 $ Retained by NWN 2004-2011	$13,704,872	$17,964,000	$16,821,000	$8,346,000	$8,740,000

	Break Out of $ Retained by NWN				Averages
Current	Interstate and intrastate storage service	$7,661,514	$8,769,448	$8,845,809	
	Optimization of core customer storage and related transportation services	$2,238,003	$3,905,152	$3,023,797	
	Optimization of core customer Pipeline and Storage capacity	$3,916,958	$5,289,869	$4,951,849	
		$13,816,475	$17,964,469	$16,821,455	$16,200,800
		6.58%	8.34%	7.57%	7.50%
		16.82%	18.58%	17.81%	17.74%
Staff Opening	Interstate and intrastate storage service	$4,668,313	$5,344,315	$5,391,464	
	Optimization of core customer storage and related transportation services	$363,991	$634,349	$485,955	
	Optimization of core customer Pipeline and Storage capacity	$953,607	$1,327,460	$1,243,610	
		$5,985,910	$7,306,124	$7,121,029	$6,804,354
		2.85%	3.48%	3.39%	3.24%
		13.09%	13.72%	13.63%	13.48%
NWN White	Interstate and intrastate storage service	$9,704,634	$9,619,766	$9,704,634	
	Optimization of core customer storage and related transportation services	$1,214,888	$1,585,872	$1,214,888	
	Optimization of core customer Pipeline and Storage capacity	$3,109,025	$3,318,650	$3,109,025	
		$14,028,547	$14,524,289	$14,028,547	$14,193,795
		6.68%	6.91%	6.68%	6.76%
		16.92%	17.15%	16.92%	17.00%
kz rebuttal	Interstate and intrastate storage service	$4,668,313	$5,344,315	$5,391,464	
	Optimization of core customer storage and related transportation services	$727,982	$1,268,698	$971,911	
	Optimization of core customer Pipeline and Storage capacity	$1,907,214	$2,654,920	$2,487,220	
		$7,303,508	$9,267,933	$8,850,594	$8,474,012
		3.48%	4.41%	4.21%	4.03%
		13.72%	14.65%	14.45%	14.27%

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Mist Storage Facility System Balances, 2003 through 2011

Note: The amounts "Allocated to Oregon" are generally 90% of the:

FERC Plant Account	ASSET BALANCES	BALANCE @ 12/31/2006	BALANCE @ 12/31/2005	BALANCE @ 12/31/2004	BALANCE @ 12/31/2003	BALANCE @ 12/31/2002	BALANCE @ 12/31/2001
UTILITY PLANT (SYSTEM BALANCES)							
Natural Gas Underground Storage							
350.1	LAND	106,549	106,549	106,549	106,549	106,549	106,549
350.2	RIGHTS-OF-WAY	51,122	51,122	51,122	51,122	51,122	51,122
351	STRUCTURES AND IMPROVEMENTS	6,239,196	6,223,128	6,221,913	6,164,049	6,156,413	5,913,514
352	WELLS	20,039,708	19,733,974	19,733,974	18,338,288	18,338,288	18,353,065
352.1	STORAGE LEASEHOLD & RIGHTS	3,538,491	3,538,491	3,538,491	3,538,491	3,538,491	3,535,500
352.2	RESERVOIRS	3,701,948	3,701,948	3,701,948	3,685,786	3,685,786	3,685,286
352.3	NON-RECOVERABLE NATURAL GAS	6,440,890	6,440,890	6,440,890	6,375,402	6,375,402	6,375,402
353	LINES	6,453,175	6,453,175	6,453,175	6,453,175	6,445,334	6,445,334
354	COMPRESSOR STATION EQUIPMENT	26,967,185	26,961,369	26,960,006	26,960,006	26,960,006	26,829,760
355	MEASURING / REGULATING EQUIPM	5,685,483	5,702,347	5,628,658	5,557,476	5,557,476	5,556,979
356	PURIFICATION EQUIPMENT	297,363	297,363	297,363	297,363	297,363	297,363
357	OTHER EQUIPMENT	702,587	702,587	702,587	702,587	702,586	702,586
	Natural Gas Utility Underground Storage Subtotal	80,223,697	79,912,943	79,836,676	78,230,293	78,214,816	77,852,460
Transmission Plant							
367.21	NORTH MIST TRANSMISSION LINE	1,514,343	1,514,343	1,514,343	1,514,162	1,514,162	1,514,162
367.22	SOUTH MIST TRANSMISSION LINE	14,949,264	14,949,264	14,949,264	14,949,264	14,949,264	14,949,264
367.23	SOUTH MIST TRANSMISSION LINE	34,010,048	33,959,912	38,244,077	51,774,789	33,580,870	33,580,870
367.24	11.7M S MIST TRANS LINE	17,466,182	17,466,182	17,895,192	-	-	-
367.25	12M NORTH S MIST TRANS	18,530,259	18,409,593	15,692,636	-	-	-
367.26	38M NORTH S MIST TRANS	68,221,196	68,299,558	65,881,392	-	-	-
	Mist Utility Transmission Plant Subtotal	154,691,292	154,598,852	154,176,904	68,238,215	50,044,296	50,044,296
	Total Mist Utility SYSTEM BALANCES	$ 234,914,989	$ 234,511,795	$ 234,013,580	$ 146,468,508	$ 128,259,112	$ 127,896,756
NON-UTILITY PLANT (SYSTEM BALANCES)							
Natural Gas Underground Storage							
352	WELLS	7,151,129	7,209,563	2,480,875	-	-	-
352.1	STORAGE LEASEHOLD & RIGHTS	479	479	479	-	-	-
352.2	RESERVOIRS	7,128,626	7,130,458	5,067,315	-	-	-
353	LINES	1,070,337	1,059,832	571,970	-	-	-
354	COMPRESSOR STATION EQUIPMENT	14,954,876	14,850,240	14,225,421	-	-	-
355	MEASURING / REGULATING EQUIPMENT	3,770,389	3,659,486	1,978,349	-	-	-
357	OTHER EQUIPMENT	-	-	-	-	-	-
121.8	NON-UTIL PROP-STORAGE	576,224	576,224	576,224	18,507,151	17,036,615	14,479,594
	Total Mist Non-Utility SYSTEM BALANCES	$ 34,652,060	$ 34,486,283	$ 24,900,633	$ 18,507,151	$ 17,036,615	$ 14,479,594
	Total Mist Utility and Non-Utility SYSTEM BALANCES	$ 269,567,048.78	$ 268,998,077.13	$ 258,914,212.41	$ 164,975,659.20	$ 145,295,727.00	$ 142,376,350.00

FERC Plant Account	ACCUMULATED DEPRECIATION		BALANCE @ 12/31/2006		BALANCE @ 12/31/2005		BALANCE @ 12/31/2004		BALANCE @ 12/31/2003		BALANCE @ 12/31/2002		BALANCE @ 12/31/2001
UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)													
Natural Gas Underground Storage													
350.1	LAND		-		-		-		-		-		-
350.2	RIGHTS-OF-WAY		10,618		9,596		8,573		7,551		6,554		5,608
351	STRUCTURES AND IMPROVEMENTS		1,516,229		1,406,577		1,297,053		1,188,359		1,079,939		985,477
352	WELLS		7,121,015		6,648,831		6,181,136		5,729,979		5,295,362		4,862,581
352.1	STORAGE LEASEHOLD & RIGHTS		906,966		848,581		790,196		731,811		673,426		615,041
352.2	RESERVOIRS		644,403		583,317		522,220		376,021		315,214		237,911
352.3	NON-RECOVERABLE NATURAL GAS		2,138,537		2,032,262		1,925,987		1,820,253		1,715,059		1,609,865
353	LINES		1,720,338		1,600,955		1,481,571		1,362,187		1,242,948		1,123,612
354	COMPRESSOR STATION EQUIPMENT		8,858,708		8,025,454		7,196,863		6,358,786		5,525,601		4,747,431
355	MEASURING / REGULATING EQUIPM		2,551,889		2,390,214		2,214,945		2,042,107		1,869,269		1,695,497
356	PURIFICATION EQUIPMENT		146,745		137,081		127,416		117,752		108,088		98,424
357	OTHER EQUIPMENT		474,512		419,780		365,049		310,317		255,585		200,853
	Natural Gas Underground Storage Subtotal		26,089,960		24,102,647		22,111,010		20,045,123		18,087,045		16,182,300
Transmission Plant													
367.21	NORTH MIST TRANSMISSION LINE		654,280		625,810		597,341		568,873		540,407		511,941
367.22	SOUTH MIST TRANSMISSION LINE		6,804,960		6,528,398		6,251,837		5,975,276		5,694,230		5,413,184
367.23	SOUTH MIST TRANSMISSION LINE		4,113,407		3,474,070		2,750,511		2,583,702		1,910,384		1,224,456
367.24	11.7M S MIST TRANS LINE		994,778		666,414		336,573						
367.25	12M NORTH S MIST TRANS		729,407		381,232		86,085						
367.26	38M NORTH S MIST TRANS		2,882,922		1,599,688		360,590						
	Mist Transmission Plant Subtotal		16,179,753		13,275,611		10,382,936		9,127,851		8,145,021		7,149,581
	Total Mist Utility Accum. Depreciation Balances	$	42,269,713	$	37,378,258	$	32,493,946	$	29,172,974	$	26,232,066	$	23,331,881
NON-UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)													
Natural Gas Underground Storage													
352	WELLS		244,696		75,344		2,450		-		-		-
352.1	STORAGE LEASEHOLD & RIGHTS		16		8		0		-		-		-
352.2	RESERVOIRS		474,580		356,943		267,148		-		-		-
353	LINES		31,822		12,174		441		-		-		-
354	COMPRESSOR STATION EQUIPMENT		1,960,137		1,498,570		1,028,890		-		-		-
355	MEASURING / REGULATING EQUIPM		359,913		245,424		175,087		-		-		-
357	OTHER EQUIPMENT		-		-		-		-		-		-
121.8	NON-UTIL PROP-STORAGE		-		-		-		1,084,689		633,297		237,121
	Total Mist Non-Utility Accum. Depreciation Balances	$	3,071,164	$	2,188,463	$	1,474,016	$	1,084,689	$	633,297	$	237,121
Total Mist Utility and Non-Utility Accum Dep'n. SYSTEM BALANCES		$	45,340,877	$	39,566,721	$	33,967,962	$	30,257,663	$	26,865,363	$	23,569,002

FERC Plant Account	NET BOOK VALUE		BALANCE @ 12/31/2006		BALANCE @ 12/31/2005		BALANCE @ 12/31/2004		BALANCE @ 12/31/2003		BALANCE @ 12/31/2002		BALANCE @ 12/31/2001
UTILITY PLANT NET BOOK VALUE (SYSTEM)													
Natural Gas Underground Storage													
350.1	LAND	$	106,549	$	106,549	$	106,549	$	106,549	$	106,549	$	106,549
350.2	RIGHTS-OF-WAY		40,504		41,526		42,549		43,571		44,568		45,514
351	STRUCTURES AND IMPROVEMENTS		4,722,966		4,816,551		4,924,859		4,975,690		5,076,474		4,928,037
352	WELLS		12,918,694		13,085,143		13,552,838		12,608,309		13,042,926		13,490,484
352.1	STORAGE LEASEHOLD & RIGHTS		2,631,525		2,689,910		2,748,295		2,806,680		2,865,065		2,920,459
352.2	RESERVOIRS		3,057,545		3,118,632		3,179,728		3,309,765		3,370,572		3,447,375
352.3	NON-RECOVERABLE NATURAL GAS		4,302,353		4,408,628		4,514,902		4,555,149		4,660,343		4,765,537
353	LINES		4,732,837		4,852,220		4,971,604		5,090,988		5,202,386		5,321,722
354	COMPRESSOR STATION EQUIPMENT		18,108,477		18,935,915		19,763,143		20,601,220		21,434,405		22,082,329
355	MEASURING / REGULATING EQUIPM		3,133,593		3,312,133		3,413,713		3,515,369		3,688,207		3,861,482
356	PURIFICATION EQUIPMENT		150,618		160,282		169,947		179,611		189,275		198,939
357	OTHER EQUIPMENT		228,075		282,807		337,538		392,270		447,001		501,733
	Natural Gas Underground Storage Subtotal		54,133,737		55,810,296		57,725,666		58,185,170		60,127,771		61,670,160
Transmission Plant													
367.21	NORTH MIST TRANSMISSION LINE		860,063		888,533		917,002		945,289		973,755		1,002,221
367.22	SOUTH MIST TRANSMISSION LINE		8,144,304		8,420,866		8,697,427		8,973,988		9,255,034		9,536,080
367.23	SOUTH MIST TRANSMISSION LINE		29,896,640		30,485,842		35,493,565		49,191,087		31,670,486		32,356,414
367.24	11.7M S MIST TRANS LINE		16,471,404		16,799,768		17,558,619						
367.25	12M NORTH S MIST TRANS		17,800,853		18,028,361		15,606,551						
367.26	38M NORTH S MIST TRANS		65,338,275		66,699,870		65,520,801						
	Mist Transmission Plant Subtotal		138,511,539		141,323,241		143,793,967		59,110,364		41,899,275		42,894,715
	Total Mist Utility Net Book Value	$	192,645,276	$	197,133,537	$	201,519,634	$	117,295,534	$	102,027,046	$	104,564,875
NON-UTILITY PLANT NET BOOK VALUE													
Natural Gas Underground Storage													
352	WELLS	$	6,906,433	$	7,134,219	$	2,478,425	$	-	$	-	$	-
352.1	STORAGE LEASEHOLD & RIGHTS		463		471		479		0		0		0
352.2	RESERVOIRS		6,654,046		6,773,515		4,800,167		0		0		0
353	LINES		1,038,516		1,047,658		571,529		0		0		0
354	COMPRESSOR STATION EQUIPMENT		12,994,739		13,351,671		13,196,531		0		0		0
355	MEASURING / REGULATING EQUIPM		3,410,476		3,414,061		1,803,262		0		0		0
357	OTHER EQUIPMENT		0		0		0		0		0		0
121.8	NON-UTIL PROP-STORAGE		576,224		576,224		576,224		17,422,462		16,403,318		14,242,473
	Total Mist Non-Utility Net Book Value	$	31,580,896	$	32,297,819	$	23,426,617	$	17,422,462	$	16,403,318	$	14,242,473
Total Mist Utility and Non-Utility Net Book Value		$	224,226,172	$	229,431,356	$	224,946,250	$	134,717,996	$	118,430,364	$	118,807,348
			224,226,172		229,431,356		224,946,250		134,717,996		118,430,364		118,807,348
	% Investment Utility Plant		85.92%		85.92%		89.59%		87.07%		86.15%		88.01%
	% Investment Non-Utility Plant		14.08%		14.08%		10.41%		12.93%		13.85%		11.99%

ROE for utiltiy storage balance
ROE for utiltiy storage balance - with trans.
Average
Average - with trans.
based on after tax income from all storage off-system sales and opti

ROE for utiltiy storage balance - util & non-util all in
Average - all in

General ROE on Rate Base
Total ROE on Mist Storage
Avg. Total ROE

				Total
185/186 $ Retained by NWN	$5,980,000	$4,500,000	$2,850,000	$78,905,872
				Annual Avg.
2004-2011				$9,863,234

Break Out of $ Retained by NWN

Current	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
Staff Opening	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
NWN White	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
kz rebuttal	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity

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Mist Storage Facility System Balances, 2003 through 2011

Note: The amounts "Allocated to Oregon" are generally 90% of the

FERC Plant Account	ASSET BALANCES	BALANCE @ 12/31/2000	BALANCE @ 12/31/1999	BALANCE @ 12/31/1998	BALANCE @ 12/31/1997	BALANCE @ 12/31/1996	BALANCE @ 12/31/1995
UTILITY PLANT (SYSTEM BALANCES)							
Natural Gas Underground Storage							
350.1	LAND	106,549	106,549	106,549	106,549	106,549	106,549
350.2	RIGHTS-OF-WAY	47,318	47,318	47,319	46,690	47,121	46,505
351	STRUCTURES AND IMPROVEMENTS	5,029,273	4,996,462	4,991,499	2,516,340	2,516,340	2,516,340
352	WELLS	18,138,203	18,138,203	18,153,567	11,810,679	12,663,008	11,810,679
352.1	STORAGE LEASEHOLD & RIGHTS	3,535,500	3,535,500	3,530,407	3,038,080	1,821,179	1,210,801
352.2	RESERVOIRS	3,685,286	3,685,094	3,679,091	1,679,184	2,506,094	-
352.3	NON-RECOVERABLE NATURAL GAS	6,375,402	6,375,402	6,376,195	6,312,953	6,374,886	4,057,953
353	LINES	6,445,334	6,445,334	6,392,472	2,538,843	2,545,524	2,538,843
354	COMPRESSOR STATION EQUIPMENT	25,130,209	21,911,652	21,816,930	8,143,343	8,149,334	8,121,118
355	MEASURING / REGULATING EQUIPM	5,508,129	4,950,253	4,711,612	3,621,492	3,621,492	3,606,120
356	PURIFICATION EQUIPMENT	297,363	297,363	297,366	294,282	294,282	245,456
357	OTHER EQUIPMENT	702,586	702,586	646,258	82,037	82,037	82,037
	Natural Gas Utility Underground Storage Subtotal	75,001,152	71,191,716	70,749,265	40,190,472	40,727,846	34,342,401
Transmission Plant							
367.21	NORTH MIST TRANSMISSION LINE	1,514,162	1,514,162	1,514,162	1,514,162	1,514,162	1,514,162
367.22	SOUTH MIST TRANSMISSION LINE	14,949,264	14,949,264	14,949,264	14,949,264	14,949,264	14,949,264
367.23	SOUTH MIST TRANSMISSION LINE	33,580,267	33,516,134	-	-	-	-
367.24	11.7M S MIST TRANS LINE	-	-	-	-	-	-
367.25	12M NORTH S MIST TRANS	-	-	-	-	-	-
367.26	38M NORTH S MIST TRANS	-	-	-	-	-	-
	Mist Utility Transmission Plant Subtotal	50,043,693	49,979,560	16,463,426	16,463,426	16,463,426	16,463,426
	Total Mist Utility SYSTEM BALANCES	$ 125,044,845	$ 121,171,276	$ 87,212,691	$ 56,653,898	$ 57,191,272	$ 50,805,827
NON-UTILITY PLANT (SYSTEM BALANCES)							
Natural Gas Underground Storage							
352	WELLS	-	-	-	-	-	-
352.1	STORAGE LEASEHOLD & RIGHTS	-	-	-	-	-	-
352.2	RESERVOIRS	-	-	-	-	-	-
353	LINES	-	-	-	-	-	-
354	COMPRESSOR STATION EQUIPMENT	-	-	-	-	-	-
355	MEASURING / REGULATING EQUIPMENT	-	-	-	-	-	-
357	OTHER EQUIPMENT	-	-	-	-	-	-
121.8	NON-UTIL PROP-STORAGE	4,929,261	-	-	-	-	-
	Total Mist Non-Utility SYSTEM BALANCES	$ 4,929,261	$ -	$ -	$ -	$ -	$ -
	Total Mist Utility and Non-Utility SYSTEM BALANCES	$ 129,974,106.00	$ 121,171,276.00	$ 87,212,691.00	$ 56,653,898.00	$ 57,191,272.00	$ 50,805,827.00

FERC Plant Account	ACCUMULATED DEPRECIATION	BALANCE @ 12/31/2000	BALANCE @ 12/31/1999	BALANCE @ 12/31/1998	BALANCE @ 12/31/1997	BALANCE @ 12/31/1996	BALANCE @ 12/31/1995
UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)							
Natural Gas Underground Storage							
350.1	LAND	-	-	-	-	-	-
350.2	RIGHTS-OF-WAY	4,673	3,738	2,802	1,866	930	-
351	STRUCTURES AND IMPROVEMENTS	894,828	806,707	718,813	674,525	630,237	585,949
352	WELLS	4,430,884	3,993,967	3,598,509	3,284,233	3,014,420	2,724,407
352.1	STORAGE LEASEHOLD & RIGHTS	556,705	498,369	442,883	389,905	323,181	298,167
352.2	RESERVOIRS	177,104	116,297	55,455	27,707	-	-
352.3	NON-RECOVERABLE NATURAL GAS	1,504,671	1,399,477	1,294,271	1,190,107	1,086,454	1,000,383
353	LINES	1,004,373	885,134	886,853	718,940	672,033	625,003
354	COMPRESSOR STATION EQUIPMENT	3,997,854	3,312,826	2,664,741	2,386,281	2,135,334	1,883,956
355	MEASURING / REGULATING EQUIPM	1,527,592	1,369,212	1,313,796	1,106,342	993,714	881,325
356	PURIFICATION EQUIPMENT	88,760	79,096	69,432	59,868	50,304	41,533
357	OTHER EQUIPMENT	146,119	91,387	48,168	32,459	26,068	19,677
	Natural Gas Underground Storage Subtotal	14,333,563	12,556,210	11,095,723	9,872,233	8,932,675	8,060,400
Transmission Plant							
367.21	NORTH MIST TRANSMISSION LINE	483,475	455,009	426,543	398,077	369,611	341,145
367.22	SOUTH MIST TRANSMISSION LINE	5,132,138	4,855,577	1,511,705	4,235,144	3,958,583	3,682,022
367.23	SOUTH MIST TRANSMISSION LINE	672,317	51,675	-	-	-	-
367.24	11.7M S MIST TRANS LINE						
367.25	12M NORTH S MIST TRANS						
367.26	38M NORTH S MIST TRANS						
	Mist Transmission Plant Subtotal	6,287,930	5,362,261	1,938,248	4,633,221	4,328,194	4,023,167
	Total Mist Utility Accum. Depreciation Balances	$ 20,621,493	$ 17,918,471	$ 13,033,971	$ 14,505,454	$ 13,260,869	$ 12,083,567
NON-UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)							
Natural Gas Underground Storage							
352	WELLS	-	-	-	-	-	-
352.1	STORAGE LEASEHOLD & RIGHTS	-	-	-	-	-	-
352.2	RESERVOIRS	-	-	-	-	-	-
353	LINES	-	-	-	-	-	-
354	COMPRESSOR STATION EQUIPMENT	-	-	-	-	-	-
355	MEASURING / REGULATING EQUIPM	-	-	-	-	-	-
357	OTHER EQUIPMENT	-	-	-	-	-	-
121.8	NON-UTIL PROP-STORAGE	-	-	-	-	-	-
	Total Mist Non-Utility Accum. Depreciation Balances	$ -	$ -	$ -	$ -	$ -	$ -
Total Mist Utility and Non-Utility Accum Dep'n. SYSTEM BALANCES		$ 20,621,493	$ 17,918,471	$ 13,033,971	$ 14,505,454	$ 13,260,869	$ 12,083,567

FERC Plant Account	NET BOOK VALUE	BALANCE @ 12/31/2000	BALANCE @ 12/31/1999	BALANCE @ 12/31/1998	BALANCE @ 12/31/1997	BALANCE @ 12/31/1996	BALANCE @ 12/31/1995
UTILITY PLANT NET BOOK VALUE (SYSTEM)							
Natural Gas Underground Storage							
350.1	LAND	$ 106,549	$ 106,549	$ 106,549	$ 106,549	$ 106,549	$ 106,549
350.2	RIGHTS-OF-WAY	42,645	43,580	44,517	44,824	46,191	46,505
351	STRUCTURES AND IMPROVEMENTS	4,134,445	4,189,755	4,272,686	1,841,815	1,886,103	1,930,391
352	WELLS	13,707,319	14,144,236	14,555,058	8,526,446	9,648,588	9,086,272
352.1	STORAGE LEASEHOLD & RIGHTS	2,978,795	3,037,131	3,087,524	2,648,175	1,497,998	912,634
352.2	RESERVOIRS	3,508,182	3,568,797	3,623,636	1,651,477	2,506,094	0
352.3	NON-RECOVERABLE NATURAL GAS	4,870,731	4,975,925	5,081,924	5,122,846	5,288,432	3,057,570
353	LINES	5,440,961	5,560,200	5,505,619	1,819,903	1,873,491	1,913,840
354	COMPRESSOR STATION EQUIPMENT	21,132,355	18,598,826	19,152,189	5,757,062	6,014,000	6,237,162
355	MEASURING / REGULATING EQUIPM	3,980,537	3,581,041	3,397,816	2,515,150	2,627,778	2,724,795
356	PURIFICATION EQUIPMENT	208,603	218,267	227,934	234,414	243,978	203,923
357	OTHER EQUIPMENT	556,467	611,199	598,090	49,578	55,969	62,360
	Natural Gas Underground Storage Subtotal	60,667,589	58,635,506	59,653,542	30,318,239	31,795,171	26,282,001
Transmission Plant							
367.21	NORTH MIST TRANSMISSION LINE	1,030,687	1,059,153	1,087,619	1,116,085	1,144,551	1,173,017
367.22	SOUTH MIST TRANSMISSION LINE	9,817,126	10,093,687	13,437,559	10,714,120	10,990,681	11,267,242
367.23	SOUTH MIST TRANSMISSION LINE	32,907,950	33,464,459	-	-	-	-
367.24	11.7M S MIST TRANS LINE						
367.25	12M NORTH S MIST TRANS						
367.26	38M NORTH S MIST TRANS						
	Mist Transmission Plant Subtotal	43,755,763	44,617,299	14,525,178	11,830,205	12,135,232	12,440,259
	Total Mist Utility Net Book Value	$ 104,423,352	$ 103,252,805	$ 74,178,720	$ 42,148,444	$ 43,930,403	$ 38,722,260
NON-UTILITY PLANT NET BOOK VALUE							
Natural Gas Underground Storage							
352	WELLS	$ -					
352.1	STORAGE LEASEHOLD & RIGHTS	0					
352.2	RESERVOIRS	0					
353	LINES	0					
354	COMPRESSOR STATION EQUIPMENT	0					
355	MEASURING / REGULATING EQUIPM	0					
357	OTHER EQUIPMENT	0					
121.8	NON-UTIL PROP-STORAGE	4,929,261					
	Total Mist Non-Utility Net Book Value	$ 4,929,261	$ -	$ -	$ -	$ -	$ -
Total Mist Utility and Non-Utility Net Book Value		$ 109,352,613	$ 103,252,805	$ 74,178,720	$ 42,148,444	$ 43,930,403	$ 38,722,260
		109,352,613	103,252,805	74,178,720	42,148,444	43,930,403	38,722,260
	% Investment Utility Plant	95.49%	100.00%	100.00%	100.00%	100.00%	100.00%
	% Investment Non-Utility Plant	4.51%	0.00%	0.00%	0.00%	0.00%	0.00%

ROE for utiltiy storage balance
ROE for utiltiy storage balance - with trans.
Average
Average - with trans.
based on after tax income from all storage off-system sales and opti

ROE for utiltiy storage balance - util & non-util all in
Average - all in

General ROE on Rate Base
Total ROE on Mist Storage
Avg. Total ROE

185/186 $ Retained by NWN

2004-2011

	Break Out of $ Retained by NWN
Current	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
Staff Opening	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
NWN White	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
kz rebuttal	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity

DR 370 -375

Mist Storage Facility System Balances, 2003 through 2011

Note: The amounts "Allocated to Oregon" are generally 90% of the:

FERC Plant Account	ASSET BALANCES	BALANCE @ 12/31/1994	BALANCE @ 12/31/1993	BALANCE @ 12/31/1992	BALANCE @ 12/31/1991	BALANCE @ 12/31/1990	BALANCE @ 12/31/1989
UTILITY PLANT (SYSTEM BALANCES)							
Natural Gas Underground Storage							
350.1	LAND	106,549	106,549	106,549	106,549	106,549	106,549
350.2	RIGHTS-OF-WAY	46,505	46,105	40,841	40,841	40,841	40,841
351	STRUCTURES AND IMPROVEMENTS	2,480,692	2,483,626	2,464,204	2,422,299	2,146,801	2,101,010
352	WELLS	11,810,679	11,808,321	11,625,429	11,492,192	9,370,235	8,834,153
352.1	STORAGE LEASEHOLD & RIGHTS	1,210,801	1,210,801	1,210,801	1,210,801	1,210,801	1,210,801
352.2	RESERVOIRS	-	-	-	-	-	-
352.3	NON-RECOVERABLE NATURAL GAS	4,057,953	4,057,953	4,057,953	4,057,953	4,057,953	4,057,953
353	LINES	2,538,843	2,538,843	2,538,843	2,490,017	2,552,840	2,521,354
354	COMPRESSOR STATION EQUIPMENT	8,055,960	8,048,312	8,045,172	8,034,912	7,983,205	7,903,744
355	MEASURING / REGULATING EQUIPM	3,596,262	3,596,227	3,594,442	3,576,623	3,555,213	3,488,264
356	PURIFICATION EQUIPMENT	171,575	171,575	168,697	152,757	139,236	126,422
357	OTHER EQUIPMENT	82,037	82,037	82,037	76,057	69,748	69,748
	Natural Gas Utility Underground Storage Subtotal	34,157,856	34,150,349	33,934,968	33,661,001	31,233,422	30,460,839
Transmission Plant							
367.21	NORTH MIST TRANSMISSION LINE	1,514,162	1,514,162	1,514,162	1,514,162	1,514,162	1,514,162
367.22	SOUTH MIST TRANSMISSION LINE	14,949,264	14,949,264	14,940,551	14,940,551	14,940,551	14,940,551
367.23	SOUTH MIST TRANSMISSION LINE	-	-	-	-	-	-
367.24	11.7M S MIST TRANS LINE	-	-	-	-	-	-
367.25	12M NORTH S MIST TRANS	-	-	-	-	-	-
367.26	38M NORTH S MIST TRANS	-	-	-	-	-	-
	Mist Utility Transmission Plant Subtotal	16,463,426	16,463,426	16,454,713	16,454,713	16,454,713	16,454,713
	Total Mist Utility SYSTEM BALANCES	$ 50,621,282	$ 50,613,775	$ 50,389,681	$ 50,115,714	$ 47,688,135	$ 46,915,552
NON-UTILITY PLANT (SYSTEM BALANCES)							
Natural Gas Underground Storage							
352	WELLS	-	-	-	-	-	-
352.1	STORAGE LEASEHOLD & RIGHTS	-	-	-	-	-	-
352.2	RESERVOIRS	-	-	-	-	-	-
353	LINES	-	-	-	-	-	-
354	COMPRESSOR STATION EQUIPMENT	-	-	-	-	-	-
355	MEASURING / REGULATING EQUIPMENT	-	-	-	-	-	-
357	OTHER EQUIPMENT	-	-	-	-	-	-
121.8	NON-UTIL PROP-STORAGE	-	-	-	-	-	
	Total Mist Non-Utility SYSTEM BALANCES	$ -	$ -	$ -	$ -	$ -	$ -
	Total Mist Utility and Non-Utility SYSTEM BALANCES	$ 50,621,282.00	$ 50,613,775.00	$ 50,389,681.00	$ 50,115,714.00	$ 47,688,135.00	$ 46,915,552.00

FERC Plant Account	ACCUMULATED DEPRECIATION	BALANCE @ 12/31/1994	BALANCE @ 12/31/1993	BALANCE @ 12/31/1992	BALANCE @ 12/31/1991	BALANCE @ 12/31/1990	BALANCE @ 12/31/1989
UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)							
Natural Gas Underground Storage							
350.1	LAND	-	-	-	-	-	-
350.2	RIGHTS-OF-WAY	-	-	-	-	-	-
351	STRUCTURES AND IMPROVEMENTS	486,008	386,722	287,765	190,037	-	-
352	WELLS	2,251,980	1,779,600	1,310,925	848,860	-	-
352.1	STORAGE LEASEHOLD & RIGHTS	249,735	201,627	153,195	104,763	-	-
352.2	RESERVOIRS	-	-	-	-	-	-
352.3	NON-RECOVERABLE NATURAL GAS	838,065	675,747	513,429	351,111	-	-
353	LINES	523,449	421,895	320,341	216,898	-	-
354	COMPRESSOR STATION EQUIPMENT	1,611,626	1,289,523	967,671	648,589	-	-
355	MEASURING / REGULATING EQUIPM	737,277	593,427	449,614	306,257	-	-
356	PURIFICATION EQUIPMENT	33,192	26,329	19,524	13,328	-	-
357	OTHER EQUIPMENT	16,396	13,115	9,834	6,792	-	-
	Natural Gas Underground Storage Subtotal	6,747,728	5,387,985	4,032,298	2,686,635	1,438,019	201,493
Transmission Plant							
367.21	NORTH MIST TRANSMISSION LINE	280,579	220,013	159,447	98,881	-	-
367.22	SOUTH MIST TRANSMISSION LINE	3,084,051	2,486,080	1,888,284	1,290,662	-	-
367.23	SOUTH MIST TRANSMISSION LINE	-	-	-	-	-	-
367.24	11.7M S MIST TRANS LINE						
367.25	12M NORTH S MIST TRANS						
367.26	38M NORTH S MIST TRANS						
	Mist Transmission Plant Subtotal	3,364,630	2,706,093	2,047,731	1,389,543	731,543	73,543
	Total Mist Utility Accum. Depreciation Balances	$ 10,112,358	$ 8,094,078	$ 6,080,029	$ 4,076,178	$ 2,169,562	$ 275,036
NON-UTILITY PLANT ACCUMULATED DEPRECIATION (SYSTEM BALANCES)							
Natural Gas Underground Storage							
352	WELLS	-	-	-	-	-	-
352.1	STORAGE LEASEHOLD & RIGHTS	-	-	-	-	-	-
352.2	RESERVOIRS	-	-	-	-	-	-
353	LINES	-	-	-	-	-	-
354	COMPRESSOR STATION EQUIPMENT	-	-	-	-	-	-
355	MEASURING / REGULATING EQUIPM	-	-	-	-	-	-
357	OTHER EQUIPMENT	-	-	-	-	-	-
121.8	NON-UTIL PROP-STORAGE						
	Total Mist Non-Utility Accum. Depreciation Balances	$ -	$ -	$ -	$ -	$ -	$ -
Total Mist Utility and Non-Utility Accum Dep'n. SYSTEM BALANCES		$ 10,112,358	$ 8,094,078	$ 6,080,029	$ 4,076,178	$ 2,169,562	$ 275,036

FERC Plant Account	NET BOOK VALUE	BALANCE @ 12/31/1994	BALANCE @ 12/31/1993	BALANCE @ 12/31/1992	BALANCE @ 12/31/1991	BALANCE @ 12/31/1990	BALANCE @ 12/31/1989
UTILITY PLANT NET BOOK VALUE (SYSTEM)							
Natural Gas Underground Storage							
350.1	LAND	$ 106,549	$ 106,549	$ 106,549	$ 106,549		
350.2	RIGHTS-OF-WAY	46,505	46,105	40,841	40,841		
351	STRUCTURES AND IMPROVEMENTS	1,994,684	2,096,904	2,176,439	2,232,262		
352	WELLS	9,558,699	10,028,721	10,314,504	10,643,332		
352.1	STORAGE LEASEHOLD & RIGHTS	961,066	1,009,174	1,057,606	1,106,038		
352.2	RESERVOIRS	0	0	0	0		
352.3	NON-RECOVERABLE NATURAL GAS	3,219,888	3,382,206	3,544,524	3,706,842		
353	LINES	2,015,394	2,116,948	2,218,502	2,273,119		
354	COMPRESSOR STATION EQUIPMENT	6,444,334	6,758,789	7,077,501	7,386,323		
355	MEASURING / REGULATING EQUIPM	2,858,985	3,002,800	3,144,828	3,270,366		
356	PURIFICATION EQUIPMENT	138,383	145,246	149,173	139,429		
357	OTHER EQUIPMENT	65,641	68,922	72,203	69,265		
	Natural Gas Underground Storage Subtotal	27,410,128	28,762,364	29,902,670	30,974,366	29,795,403	30,259,346
Transmission Plant							
367.21	NORTH MIST TRANSMISSION LINE	1,233,583	1,294,149	1,354,715	1,415,281		
367.22	SOUTH MIST TRANSMISSION LINE	11,865,213	12,463,184	13,052,267	13,649,889		
367.23	SOUTH MIST TRANSMISSION LINE	-	-	-	-		
367.24	11.7M S MIST TRANS LINE						
367.25	12M NORTH S MIST TRANS						
367.26	38M NORTH S MIST TRANS						
	Mist Transmission Plant Subtotal	13,098,796	13,757,333	14,406,982	15,065,170	15,723,170	16,381,170
	Total Mist Utility Net Book Value	$ 40,508,924	$ 42,519,697	$ 44,309,652	$ 46,039,536	$ 45,518,573	$ 46,640,516
NON-UTILITY PLANT NET BOOK VALUE							
Natural Gas Underground Storage							
352	WELLS						
352.1	STORAGE LEASEHOLD & RIGHTS						
352.2	RESERVOIRS						
353	LINES						
354	COMPRESSOR STATION EQUIPMENT						
355	MEASURING / REGULATING EQUIPM						
357	OTHER EQUIPMENT						
121.8	NON-UTIL PROP-STORAGE						
	Total Mist Non-Utility Net Book Value	$ -	$ -	$ -	$ -	$ -	$ -
Total Mist Utility and Non-Utility Net Book Value		$ 40,508,924	$ 42,519,697	$ 44,309,652	$ 46,039,536	$ 45,518,573	$ 46,640,516
		40,508,924	42,519,697	44,309,652	46,039,536	45,518,573	46,640,516
	% Investment Utility Plant	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	% Investment Non-Utility Plant	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ROE for utiltiy storage balance
ROE for utiltiy storage balance - with trans.
Average
Average - with trans.
based on after tax income from all storage off-system sales and opti

ROE for utiltiy storage balance - util & non-util all in
Average - all in

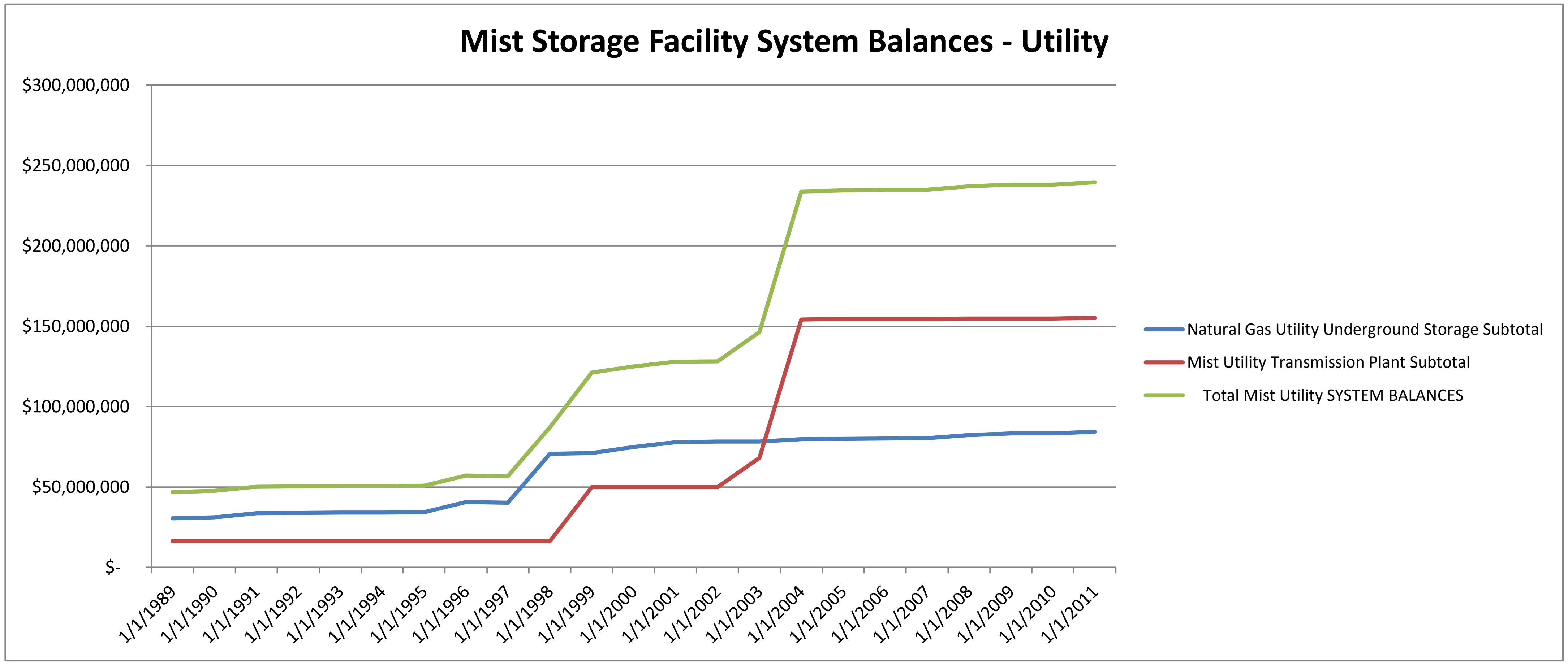
General ROE on Rate Base
Total ROE on Mist Storage
Avg. Total ROE

185/186 $ Retained by NWN

2004-2011

Break Out of $ Retained by NWN

Current	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
Staff Opening	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
NWN White	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity
kz rebuttal	Interstate and intrastate storage service
	Optimization of core customer storage and related transportation services
	Optimization of core customer Pipeline and Storage capacity


Mist Storage Facility System Balances - Utility
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$250,000,000
$200,000,000
$150,000,000
$100,000,000
$50,000,000
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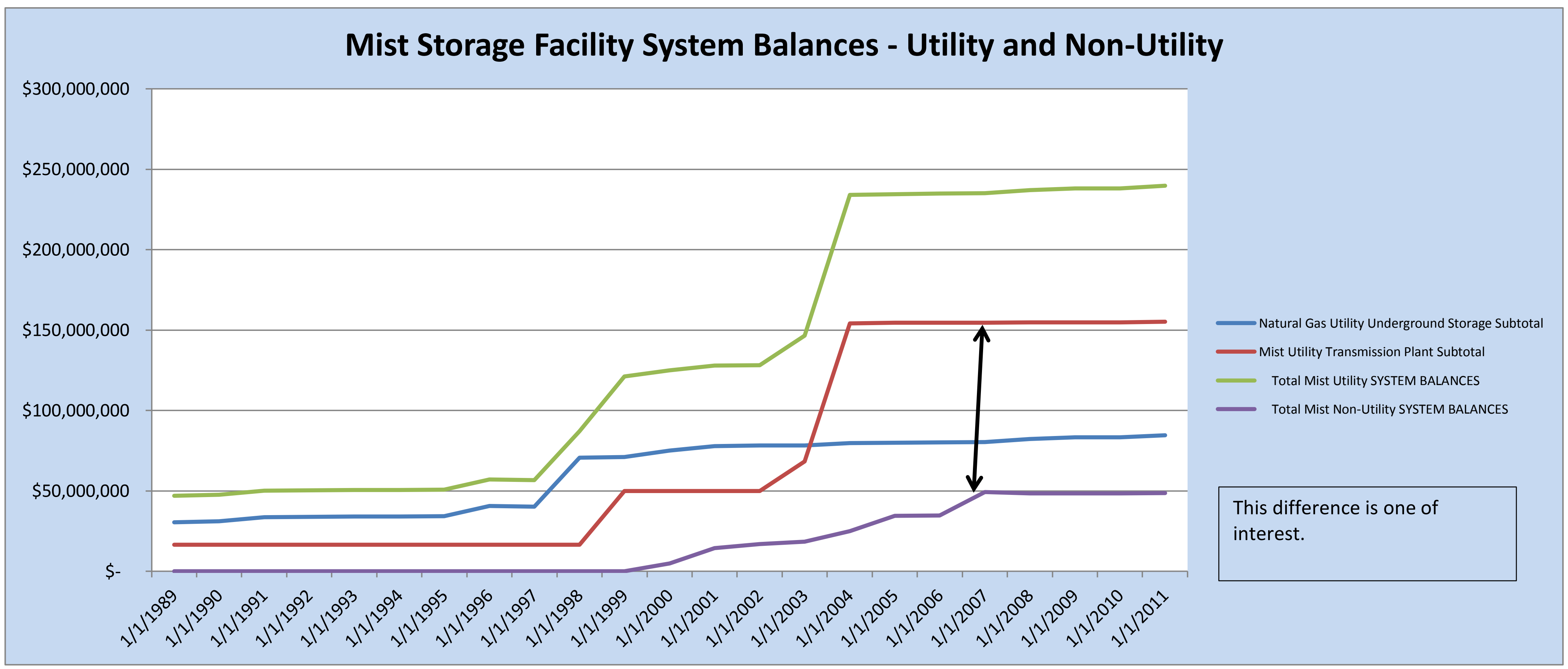
1/1/2011
Natural Gas Utility Underground Storage Subtotal
Mist Utility Transmission Plant Subtotal
Total Mist Utility SYSTEM BALANCES


Mist Storage Facility System Balances - Utility and Non-Utility
$300,000,000
$250,000,000
$200,000,000
$150,000,000
$100,000,000
$50,000,000
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1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
Natural Gas Utility Underground Storage Subtotal
Mist Utility Transmission Plant Subtotal
Total Mist Utility SYSTEM BALANCES
Total Mist Non-Utility SYSTEM BALANCES
This difference is one of interest.

UG 221: Oregon General Rate Case
Interstate Storage - Sharing Alternative
(thousands of $'s)

	Margin (Oregon allocation)				Customer Sharing (3-Year Average)					
					Current		Rebuttal Alternative		Surrebuttal Alternative	
	2009	2010	2011	3-Year Avg	%	$'s	%	$'s	%	$'s
Non-Utility Storage capacity:										
Storage Services	$ 9,686	$ 9,596	$ 8,376	$ 9,219	20%	$ 1,844	10%	$ 922	10%	$ 922
Optimization - Storage	$ 2,246	$ 2,930	$ 1,633	$ 2,270	20%	$ 454	10%	$ 227	10%	$ 227
sub-total	$ 11,932	$ 12,526	$ 10,009	$ 11,489		$ 2,298		$ 1,149		$ 1,149
Core Resources capacity:										
Optimization - Storage	$ 2,119	$ 2,765	$ 1,633	$ 2,172	67%	$ 1,455	75%	$ 1,629	(1)	
Optimization - Transportation	$ 11,171	$ 11,918	$ 8,554	$ 10,548	67%	$ 7,067	75%	$ 7,911	(1)	
sub-total	$ 13,290	$ 14,683	$ 10,187	$ 12,720		$ 8,522		$ 9,540	(1)	$ 9,822
Recall adjustment (Jan-Apr)	$ (33)	$ -	$ (19)	$ (17)		$ (17)		$ (17)		$ (17)
Total	$ 25,189	$ 27,209	$ 20,176	$ 24,191		$ 10,803		$ 10,671		$ 10,954

(1) 80% on first $10 million of Core Resources optimization; 67% on optimization margin above $10 million.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of David Williams

SERVICE WINDOW APPOINTMENTS
EXHIBIT 3900

August 9, 2012

EXHIBIT 3900 – SURREBUTTAL TESTIMONY – SERVICE WINDOW APPOINTMENTS

Table of Contents

Rates & Regulatory Affairs
NW NATURAL
220 N.W. Second Avenue
Portland, Oregon 97209-3991
1-503-226-4211

I. INTRODUCTION AND SUMMARY

Q. Are you the same David Williams who filed direct testimony in this case on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company")?

A. Yes. My Exhibits NWN/900-909 supported the Company's proposed service window appointment and bill payment options programs.

Q. What is the purpose of your surrebuttal testimony?

A. I make a clarification with regard to the Company's proposed bill payment option program. I also present testimony in response to Commission Staff's ("Staff") and the Citizens' Utility Board of Oregon's (CUB) rebuttal testimony related to the proposed service guarantee associated with the Company's four-hour service window appointment proposal (SWA).

Q. Please summarize your surrebuttal testimony.

A. In my testimony, I:

- Clarify my direct testimony with regard to which customers are eligible for the fee-free bank card program;
- Respond to Staff's and CUB's proposed service window appointment guarantee; and
- Present the Company's proposed service guarantee.

II. BILL PAYMENT OPTIONS – FEE-FREE BANK CARD PROGRAM

Q. Please clarify which customers are eligible for the fee-free bank card program.

A. In my direct testimony (NWN/900 Williams) I use the word "customer" when discussing the proposed bill payment option program. I want to clarify that the bank card payment program, and the projected costs and adoption rates for the program were designed for

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the residential (Rate Schedule 1 and Rate Schedule 2) and small commercial (Rate Schedule 1 and Rate Schedule 3 using 25,000 therms per year or less) customers only. The Company used the for-fee bank card transaction history to calculate costs and expected adoption rates, and due to the limitations on transaction amounts and number of transactions that were associated with the for-fee program, there were no large commercial or industrial users to include in the analysis.

Because of the unique nature of commercial corporate credit cards and the larger dollar amounts typically associated with large commercial and industrial customer bills, the cost of making that payment option free to these customers is significant and would materially increase the costs associated with the fee-free program. For this reason, the Company is not proposing to implement the program for large commercial and industrial customers at this time. Although parties may have inferred from my testimony and work papers that the bill payment option applied only to residential and small commercial customers, I felt that it was important to clarify this issue.

III. SERVICE WINDOW APPOINTMENTS SERVICE GUARANTEE

Q. Why did the Company choose to implement service window appointments through this general rate case?

A. As stated in my direct testimony (See NWN/900 Williams/10), because of the cost and complexities of implementing a service window appointment program, the Company felt that presenting the issue before the Commission, the public, and parties through a general rate proceeding was the most practical forum for evaluating whether or not this additional service is worth the increased cost to customers.

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Q. So this decision is not a reflection of placing any lesser value on customer service as CUB suggests in its rebuttal testimony?[1]

A. No, it is not. The Company values customer service, and we believe we take appropriate steps to maintain high levels of customer service. Again, given the cost and resources associated with service windows, we thought it was wise to develop the parameters and approach through the rate case rather than just taking the steps, and incurring the costs, to implement it without this process.

Q. Do you object to the concept of a service guarantee associated with the Company's proposed service window appointment program?

A. No. As discussed in the reply testimony of Onita King (NWN/2800 King/5) the Company does not object to a service guarantee. However, the service guarantee proposed by Staff in its opening testimony failed to meet certain criteria that the Company believes is essential to a fair and reasonable service guarantee for this type of program.

Q. What did Staff propose as a service window appointment guarantee in its rebuttal testimony?

A. In rebuttal testimony (Staff/2000 Gorsuch2-3), Staff proposed a $100.00 service guarantee on a 98% service level (allows that the guarantee payment is made when the number of missed appointments exceeds two percent of scheduled appointments) with a six-month delay for program implementation. After that six-month delay, the service guarantee would continue indefinitely. Any $100 guarantee payment would be placed into a deferral account for subsequent pass through to all ratepayers with the annual Purchased Gas Adjustment (PGA). As an alternative, Staff proposed a $25.00 service

1 CUB/200 Jenks-Feigner/32 lines 5-12.

guarantee on 100% of missed appointments, with that payment going directly to the customer that experienced the missed appointment.

Q. What did CUB propose as a service guarantee in its rebuttal testimony?

A. CUB proposed a service guarantee in the amount of $100 on 100% of missed appointments, with $50 being paid directly to the customer that experienced the missed appointment. Although CUB did not specifically state this in testimony, I assume CUB intends that the remaining $50 be returned to all ratepayers in a manner similar to Staff's proposal. CUB also indicates that a six-month delay for program implementation would be acceptable, with the service guarantee payment to continue indefinitely. See CUB/200 Jenks-Feighner/35.

Q. Are any of the service guarantee proposals made by Staff and CUB acceptable?

A. No. However, Staff's proposal met some of the criteria identified in Ms. King's testimony, and this effort is appreciated. Staff's proposal is still problematic, however, and we cannot agree to the specific criteria Staff has proposed. Because CUB's proposed service guarantee does not consider the Company's criteria at all, the CUB proposal is also not acceptable to the Company.

Q. What support has Staff or CUB submitted in support of their proposed $100 service guarantee amount?

A. CUB has not provided any support for the $100 amount proposed, only stating that the amount is "not onerous". See CUB/200 Jenks-Feighner/33. Staff supported the $100 amount based on four times the hourly wage of a customer service field technician. See footnote 1 of Staff/2000 Gorsuch/2. In my opinion, establishing a service guarantee

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payment based on the wages of the position performing it is unfounded, and Staff's proposed $100 service guarantee amount should be rejected.

Q. What about Staff's alternative proposal for a $25 service guarantee amount for any missed appointment, and CUB's proposal that the service guarantee should be paid on all missed appointments?

A. As stated in the reply testimony of Onita King (NWN/2800 King/3) the service guarantee must consider the many variables beyond the Company's control that could cause an appointment to be missed. While this can be loosely managed through the establishment of a series of exceptions, as Staff suggests in rebuttal testimony (Staff/200 Gorsuch/2), and has been done in the case of PacifiCorp as set forth in General Rule 25 of their approved Oregon Tariff P.U.C. Or. 36, I believe that an exception-based approach can become administratively burdensome and is highly subjective in nature. In my opinion, a 90% service level achieves a similar outcome as would be achieved from an exception based approach but without the administrative issues, and is consistent with the service levels of our peer utilities, which I discuss in more detail later in this testimony.

Q. Do you have a service guarantee proposal at this time?

A. Yes. I propose a service guarantee in the amount of $50 to be paid on missed appointments that exceed 10% (in other words, a 90% service level). Any service guarantee payments would be placed into a deferral account to be credited to all ratepayers at the time of the Company's annual PGA. A six-month window for implementation is acceptable, with a review at the end of five years from the rate

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effective date in this general rate proceeding to determine whether or not the service guarantee should continue in the future.

Q. What is the basis for your proposed $50 guarantee amount?

A. We conducted an informal survey of 14 gas utilities (see my Table 1 below) and we reviewed the filed Tariffs of the two local electric utilities, PGE and PacifiCorp. Only one of the 14 gas utilities, Puget Sound Energy, and only one of the local electric utilities, PacifiCorp, has a service guarantee payment for missed service appointments. In each case, the service guarantee payment amount is $50. Based on this information, I believe a $50 guarantee amount is reasonable and consistent with what other regulated utilities in this region offer as a service guarantee payment. Also based on this information, it is my opinion that Staff's and CUB's proposed $100 service guarantee payment is not reasonable.

Q. If only one gas utility has a service guarantee payment, a service guarantee on missed appointments doesn't appear to be the industry standard. Why is NW Natural willing to agree to a $50 guarantee?

A. Although the informal data we collected might indicate that a service guarantee payment is inconsistent with the industry standard, the Company recognizes the unique circumstances specific to its proposed service window appointment program (*e.g.* that it is being proposed in a rate case) and can agree to the $50 service guarantee under the conditions I described earlier in my surrebuttal testimony.

Q. What is the basis for your proposed 90% service level?

A. Since NW Natural has never offered a service window appointment program, we look to the experiences of our peer companies as an indicator of what a reasonable service level

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might be. In the same informal survey that I mentioned above, we asked each gas utility to identify their service level targets for meeting appointments. The results of this survey are shown in my Table 1 below, and indicate that the service level targets range from 85% to 99%, with an average service level of 90%.

TABLE 1		
Utility	**Service Level**	**Guarantee Payment**
Union Gas	85%	None
Puget Sound Energy	90%	$50
Citizens Energy Group	91%	None
New Jersey Natural Gas	99%	None
People's Gas, Light & Coke	90%	None
North Shore Gas Co.	90%	None
Montana Dakota Utilities	Not measured	None
South Jersey Gas Co.	87.3%	None
UGI Utilities	87%	None
Avista Corp.	90%	None
AGL Resources, Inc.	90%	None
Dominion East Ohio	95%	None
Piedmont Natural Gas Co.	90%	None
Entergy	85%	None
Average	90%	

Q. Please explain your proposal for a review of the service guarantee at the end of five years.

A. As I noted earlier in my testimony, although many regulated utilities offer service appointments, very few--in fact only one gas utility--has a service guarantee payment associated with that service. The Company has proposed this service window appointment program because we know our customers want it, and as such the Company is committed to meeting our customer's expectations in the long-term. I am confident that our behavior will prove that position to Staff and CUB who have suggested that the service guarantee should never end. It is my opinion that a review at the end of

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five years will provide sufficient time for the appointment program to be fully integrated into our customer service practices and to prove to the parties that the risk of service erosion, which CUB states they are concerned about, is unfounded.

Based on the testimony of Staff and CUB, it is clear that the driving factor behind their proposed service guarantee is to make the Company accountable for fulfilling its commitment to the program. In my opinion, once that commitment is proven, the need for a service guarantee goes away.

Q. Does this conclude your testimony?

A. Yes, it does.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Onita R. King

TARIFFS
EXHIBIT 4000

August 9, 2012

EXHIBIT 4000 – SURREBUTTAL TESTIMONY – TARIFFS

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I. INTRODUCTION AND SUMMARY

Q. Are you the same Onita R. King who filed direct testimony and reply testimony in this case on behalf of Northwest Natural Gas Company ("NW Natural" or "the Company")?

A. Yes. My Exhibits NWN/1700–1701 supported the Company's requested tariff revisions and my Exhibits NWN/2800-2803 provided testimony on the proposed service window appointment service guarantee as well as further testimony regarding proposed tariff revisions.

Q. What is the purpose of your surrebuttal testimony?

A. I present testimony in response to Commission Staff's ("Staff"), the Citizens' Utility Board of Oregon's (CUB), and the Northwest Industrial Gas Users' (NWIGU) rebuttal testimony related to changes to various tariff schedules.

Q. Please summarize your surrebuttal testimony.

A. In my testimony, I:

- Provide additional testimony that supports the Company's position that Staff's proposed changes to Schedule C reconnection charges, in part, should be denied;
- Address Staff's proposed change to interruptible service rates;
- Provide additional testimony that shows why NWIGU's position with regard to interruptible service on Rate Schedule 32 should be rejected; and
- Provide additional testimony supporting the Company's proposed changes to Schedule X.

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II. SCHEDULE C RECONNECT CHARGES

Q. Has the Company changed its position with regard to Staff's proposed changes to the Schedule C reconnect charges?

A. Yes, in part. The Company can agree to Staff's proposal to increase the Tier 1 charge (the charge for reconnections of service scheduled Monday through Friday between 8:00 a.m. and 5:00 p.m.) from $25.00 to $30.00 and can agree to Staff's proposal to set the Tier 3 charge at $175.00. The Company's initial proposal was to increase the Tier 1 charge to $40.00 and to set the new Tier 3 charge at $185.00. The Company continues to dispute the structural changes proposed by Staff with regard to the Tier 3 charge.

Q. Please explain the disputed issues with regard to Staff's proposed changes to the Tier 3 charge.

A. Staff proposes to structure the Tier 3 charge so that it would apply to reconnections of service requested for Saturday, Sunday or on a Holiday. The Company's proposal was structured such that this charge would apply to reconnections of service requested for the same-day after-hours, and for reconnections on Saturday, Sunday or Holidays. As I discussed in reply testimony (NWN/2800 King/5) the structure for the Tier 3 charge proposed by the Company is consistent with OAR 860-021-0328(7)(b) which states "[f]or an After Hours Reconnect that is completed the same day as the request, the reconnection fee may be higher than for an After Hours Reconnect scheduled for a subsequent day."

Q. Would you agree that the rule doesn't require the fee for same-day after-hours reconnects to be higher?

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A. Yes, I agree that the current rule does not require a higher fee for same-day after-hours reconnections. But I would point out that during the rulemaking process (Docket AR 507) that resulted in the adoption of the currently effective administrative rule (OAR 860-021-0328) Staff is on record as proposing that the rule mandate a higher charge for same-day after-hours reconnections.[1] Specifically, Staff states at page 8 of its filed comments in Docket AR 507:

> *"… From a policy perspective, Staff recommends the Commission adopt two tiers for After Hours Reconnect fees for the following reasons: The purpose of an administrative rule is to protect an individual's rights, as well to look after the interests of ratepayers to adopt a policy that is more than likely to incur significantly higher costs, when they can be avoided. Higher costs for same day reconnects are more likely because a utility will not have as much flexibility to incorporate a same-day service request into an existing schedule, which would then result in the utility incurring the cost of a "call-out"*[2] *rather than simple employee overtime. Staff believes it is critical for a customer to have the option of a same-day After Hours Reconnect but believes the cost for this service should be borne by the customer who requests the service. Because of potential for much higher costs, Staff does not support adoption of a rule that would encourage a customer to request a same day reconnect on a routine basis. Staff also is concerned that adopting a policy where a higher fee is optional, increases the potential for discrimination between similarly situated customers."*
>
> *2 A "callout" is an industry term that refers to a service person being called back to work after the employee's normally scheduled hours. Most utility/union contracts specify how the employee must be paid and generally the requirement is a minimum of two hours of overtime plus a meal.*

Further, Staff supported the implementation of a higher Tier 3 charge for same-day after-hours reconnections for Cascade Natural Gas Company shortly after these rule changes became effective, but provides no explanation as to why the same structure is rejected for NW Natural.[2]

1 See *Re. Rulemaking Regarding Connection of Energy Utility Service*, Docket AR 507, Order No. 06-333 (June 28, 2006), pages 3-4; Staff's Comments at 8 (May 2, 2006).
2 See Staff memorandum dated July 31, 2006, Item No. CA16 of Public Meeting Agenda Date August 22, 2006; Cascade Natural Gas Advice filing CNG/O06-07-01 dated July 27, 2006

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Q. Staff states that the Company believes that service reconnection costs should be paid in full by the customers causing the costs. Is that an accurate summary of the Company's position?

A. No, Staff's characterization is not entirely accurate. Staff seems to have misconstrued the Company's response to Data Request 512 (see footnote 3 at Staff/2000 Gorsuch/4) as saying that the Company believes that the higher reconnection charges are needed to ensure that costs associated with reconnection of service should be paid in full through the customer charge. That is not the case at all. In fact, the Company agrees that the basic reconnection charges for standard reconnection of service (scheduled reconnections either during or after-hours) should not reflect the full cost associated with that activity because some of the costs associated with reconnection work (*i.e.* the service technicians, call center personnel) are already included in general rates.

However, it is a different situation with regard to reconnections of service on a same-day basis. In accordance with the administrative rule, the Company schedules standard reconnections of service to be completed by the end of the next business day. Therefore, the customer service costs included in rates are based on this next-day scheduling process, and the Company does not staff to perform these services on a same-day basis. As such, the costs incurred to respond to any reconnection performed on a same-day basis are not included in customer rates and should be paid in full by the customer that causes that activity. In fact, as demonstrated earlier in this testimony, Staff acknowledged agreement with this very position in filed comments in Docket AR 507.[3]

Q. What does CUB say with respect to reconnection charges?

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3 See page 8 of Staff's comments filed in Docket AR 507 dated May 2, 2006.

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A. It is CUB's position that no increase to reconnection charges is necessary, but if the Commission decides to increase reconnection charges that Staff's proposal for Tiers 1 and 2 is better. See CUB/200 Jenks-Feighner/28. With regard to the Tier 3 charge, CUB argues that Staff's proposal should be rejected, and that there should be no Tier 3 charge at all.

Q. Does the Company agree with CUB's proposal?

A. As stated earlier, the Company can agree to Staff's proposal for the Tier 1 and Tier 2 charge (Staff's proposed Tier 2 charge was not different from the charge proposed by the Company). With regard to the Tier 3 charge, I believe that there is a sufficient policy basis set forth by Staff in Docket AR 507 to assert that the Tier 3 charge is appropriate and consistent with the intent of Staff and the parties in that docket. Any concerns CUB has with the Tier 3 concept should have been aired during the AR 507 rulemaking proceeding.

III. INTERRUPTIBLE SERVICE

Q. What did Staff propose with regard to interruptible service?

A. Staff proposes that in lieu of an interruptible service rate that it would make more sense to have only firm service rates (Staff refers to this as standard tariffs) with a payment made for customers that either agree to being interrupted, or get interrupted. Staff's proposal is premised upon a statement that customers do not have a right to interruptible service, and that interruptible customers have been interrupted very infrequently (Staff/2400 Ordonez/19).

Q. Does Staff's proposal make sense for NW Natural?

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A. I agree with Staff that customers do not have a right to interruptible service. In fact, this is the premise of the Company's proposed changes to Rate Schedule 31 and Rate Schedule 32. However, as I will discuss in more detail later in my testimony, it is my opinion that Staff's proposed alternative structure is unnecessary if the changes proposed to Rate Schedule 31 and Rate Schedule 32 are adopted. In addition, Staff's proposal would be administratively intensive, would slow down the notification process, and would likely not result in the curtailment of usage by customers as quickly and effectively as might be required in any given curtailment situation.

Q. In your reply testimony you proposed further revisions to address concerns expressed by NWIGU in opening testimony. Does NWIGU agree with these revisions?

A. In part. In its rebuttal testimony, NWIGU states that they support the removal of the five-year review of interruptible service, but continue to oppose the other revisions stating that "… the Company's proposal is extraordinary because it eliminates a customer's ability to elect the level of service it wants and needs." See NWIGU/200 Schoenbeck/2.

Q. Do you agree that customers should be able to choose interruptible service if they don't need firm service?

A. No. The firm and interruptible service types offered in the Company's tariff represent the level of service that the Company will commit to provide to a customer -- not the customer's preferred level of service. As such, NWIGU's statement that the Company's proposed tariff revisions eliminate a customer's ability to elect the level of service it wants and needs is misguided. What these revisions do accomplish, however, is to remove the ability for a customer to elect interruptible service and actually receive firm service at a

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discounted rate, and reinstates the Company's control to approve interruptible service when and where it is needed on its system so that its obligations to firm service customers are met.

Q. Why is the Company making these changes now? Haven't customers always been allowed to choose interruptible service if they wanted to?

A. Over the last 10-15 years the Company has had less restrictive practices with regard to allowing customers to elect an interruptible service option. But as Staff points out, interruptible service is not intended to be a customer right. In fact, the availability of interruptible service really stems from ORS 757.710, which requires the utility to have an emergency curtailment plan. The ability to curtail interruptible service customers on short notice (two hours) is the pivotal component of the Company's emergency plan.

The Company now recognizes that its past practices have been inconsistent with the intent behind the availability of an interruptible service option and the proposed tariff revisions correct for that. If for no other reason, these tariff changes are necessary to ensure customer equity between service levels and the rates customers pay for that service.

IV. SCHEDULE X

Q. What did the Company propose with regard to Schedule X, which governs distribution facilities extensions and main extensions?

A. The Company made a number of editorial changes to Schedule X, none of which result in any material change in purpose or intent. In addition, the Company proposed changes to the construction allowance provisions that pertain to residential applicants. I stated in my direct testimony (NWN/1700 King/8) that the proposed changes to the construction

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allowance provisions for residential customers was associated with the Company's proposed Schedule 2 rate design.

Q. If the Company's proposed Schedule 2 rate design is not adopted, will the Company withdraw its proposed revisions to the construction allowance provisions under Schedule X?

A. No. The proposed residential construction allowances represent the expected margin revenue, given the Company's proposed revenue requirement in this case, that the average residential customer within each gas-fired equipment profile could reasonably be expected to generate. Whether the margin revenue is generated through the customer charge or through a combination of the customer charge and volumetric charges, the expected margin revenue does not materially change. The only revisions necessary to the construction allowance provisions will be to update the construction allowances to reflect the final revenue requirements approved in this proceeding.

Q. Why does the Company propose to retain these revisions?

A. The current 5.0 times margin calculation is very granular in that it derives an expected margin revenue for each applicant based on the individual attributes of the house (number of bedrooms, square footage, etc.) and the type and number of gas-fired equipment and appliances being installed. In many cases, in order for a new customer to get a new gas service without a construction contribution payment they have to show high gas usage. This sends an improper message to customers that high gas usage is better and may even cause new gas service applicants to install lower-efficient equipment, or to add more equipment than they may initially want to install because they are motivated to drive up the 5.0 times margin allowance to achieve a zero or minimal

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construction contribution payment. Not only does the Company believe that this is not the appropriate signal to send to new customers, this approach adds administrative complexities, increases the time it takes to process a new service application, and is ultimately prone to inequities between customers with like construction conditions but with different house types. For these reasons, the Company requests that the Commission adopt the proposed Schedule X revisions irrespective of the outcome on the residential rate design.

Q. Does this conclude your testimony?

A. Yes, it does.

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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Andrew Middleton

HISTORICAL MANUFACTURED GAS PLANT OPERATIONS

EXHIBIT 4100

August 9, 2012

EXHIBIT 4100 – SURREBUTTAL TESTIMONY – HISTORICAL MANUFACTURED GAS PLANT OPERATIONS

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Andrew Middleton's Surrebuttal Testimony
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BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UG 221

NW Natural

Surrebuttal Testimony of Gregg Kantor

POLICY - CONSERVATION
EXHIBIT 4200

August 9, 2012

EXHIBIT 4200 – SURREBUTTAL TESTIMONY – POLICY - CONSERVATION

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I. INTRODUCTION AND SUMMARY

Q. Are you the same Gregg Kantor that offered direct testimony in this proceeding?

A. Yes, as Exhibit NWN/100.

Q. Please summarize your surrebuttal testimony.

A. In this testimony, I briefly address statements of the Citizens' Utility Board (CUB) regarding the Company's commitment to conservation.

II. COMPANY'S COMMITMENT TO CONSERVATION

Q. What statements did the parties make with respect to the Company's commitment to conservation?

A. In its reply testimony, CUB states its view that "NW Natural no longer wants to encourage conservation." CUB/200 Jenks-Feighner/13. CUB's statement appears to rest on its perception of NW Natural's proposed rate design, which would decrease the volumetric rate and increase the monthly fixed charge in customers' bills.

Q. What is your response to CUB's statements?

A. The Company's technical response to CUB's position regarding our proposed rate design is contained in the surrebuttal testimony of Russell Feingold (NWN/3600 Feingold). However, I will address CUB's statements at a high level by reaffirming that the Company is not backing away from conservation efforts. In fact, we have been very clear throughout the case on this point. For example, in my direct testimony, I explained:

> We remain committed to working with the ETO and collecting public purpose funding for the ETO as long as the final rate design adopted in this proceeding continues to remove the financial disincentive to the Company of encouraging increased energy efficiency for our customers. Further, the Company is interested in expanding energy efficiency opportunities for its customers and will be developing ideas and discussing them with the parties and the Commission in other forums.

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NWN/100 Kantor/6.

Similarly, Natasha Siores explained in her direct testimony that the Company's commitment to energy efficiency would not be altered by the proposed rate design. *See* NWN/1200 Siores/10.

As explained more fully in Russell Feingold's surrebuttal testimony, the Company does not believe that it is necessary to include fixed costs in its volumetric rate in order to achieve cost-effective conservation, and believes that such an approach can have negative consequences, which the Company's proposed rate design seeks to address. *See* NWN/3600 Feingold/10, 16. The Company believes that its proposed rate design is appropriate and still accommodates robust energy efficiency efforts by the Company to achieve cost-effective savings.

Q. Does this conclude your testimony?

A. Yes.

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