

**BEFORE THE
WASHINGTON UTILITIES & TRANSPORTATION COMMISSION**

**UG-___
GENERAL RATE APPLICATION
OF
NORTHWEST NATURAL GAS COMPANY**

MARCH 28, 2008

Direct Testimony of C. Alex Miller

**Rate of Return
Capital Structure
Embedded Cost of Debt
Cost of Capital
Decoupling Mechanism**

TESTIMONY OF C. ALEX MILLER

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1 **I. Introduction and Summary**

2 **Q. Please state your name, business address and position with NW Natural.**

3 A. My name is C. Alex Miller. My address is 220 NW Second Avenue, Portland,
4 OR 97209. I am the Assistant Treasurer and Managing Director of Regulatory
5 Affairs at Northwest Natural Gas Company (NW Natural or the Company). I am
6 responsible for the Company's rates and regulatory affairs department, and for
7 the financial planning, financial analysis, and budgeting department.

8 **Q. What is the purpose of your testimony?**

9 A. My testimony discusses two distinct topics. First, I present the calculation of the
10 overall rate of return the Company is seeking in this proceeding, comprising the
11 Company's proposed capital structure, the embedded cost of debt, and the
12 overall cost of capital. Second, I describe the Company's proposal to implement
13 a decoupling mechanism in this proceeding.

14 **Q. Please summarize your testimony.**

15 A. My testimony makes the following points:

- 16 • An overall rate of return of 8.68 percent is necessary to pay the required debt
17 service on outstanding long- and short-term debt, and to provide the
18 stockholders with a return adequate to compensate them for the risks of
19 investing in NW Natural and to allow the Company to maintain its financial
20 integrity and to continue to raise capital on reasonable terms.

- 1 • Implementation of decoupling in this proceeding is in the public interest.
2 Without decoupling, the Company would be acting against its economic
3 interests in ramping up its conservation program in Washington.
4 • Decoupling is necessary to align the interests of the Company and its
5 shareholders with the interests of its customers.
6 • The Commission has previously recognized the policy foundations for
7 decoupling, and has already approved partial decoupling mechanisms for two
8 Washington gas utilities.
9 • The Company's proposal is consistent with this Commission precedent, but
10 also includes design features that take advantage of the Company's
11 technological capability and its years of experience in successfully
12 administering a decoupling mechanism in Oregon.

13 **II. Capital Structure, Overall Rate of Return**

14 **Q. How is this portion of your testimony organized?**

15 A. First I present the Company's proposed overall cost of capital. Then I provide a
16 brief overview of the Company's financing strategy, followed by a description of
17 the capital structure and embedded cost of debt.

18 A. Overall Cost of Capital

19 **Q. What overall cost of capital is the Company proposing in this proceeding?**

20 A. NW Natural is proposing an overall cost of capital of 8.68 percent. This includes
21 the proposed 10.65 percent ROE recommendation from the testimony of Dr.

1 Samuel C. Hadaway. See, *Exhibit No.____ (SCH-1)*. The proposed overall cost
2 of capital is shown in Table 1 below. See, *Exhibit No.____ (CAM-2)*.

3 **Table 1**
4 **Overall Cost of Capital**

Component	Percent of Total	Cost	Weighted Average
Long-Term Debt	44.23%	6.796%	3.01%
Short-Term Debt	5.03%	5.280%	0.27%
Common Stock	50.74%	10.65%	5.40%
Total	100%		8.68%

5 **Q. Does the Company have any preferred stock?**

6 A. No. The Company retired its last remaining portion of preferred stock in 2005.
7 The Company has no plans at this time to issue preferred stock.

8 **Q. Why has the Company included short-term debt in its capital structure?**

9 A. The Company has included short-term debt in its proposed capital structure to
10 comply with what we understand to be Commission policy with respect to short-
11 term debt. In the Company's view, however, it is inappropriate to include short-
12 term debt in the permanent financing of the Company.

13 **Q. Why does the Company oppose the inclusion of short-term debt in its**
14 **capital structure?**

15 A. Short-term debt is not used as permanent financing by the Company. Although
16 the Company had short-term debt outstanding at each month end over the

1 twelve months of the test period (the twelve months ended September 30, 2007),
2 in some months the amount outstanding was miniscule, as low as 0.4%. And
3 this hides the fact that the Company had no short-term debt outstanding for 64
4 days during the test period, and in fact had short-term investments as high as
5 \$43.4 million. In addition, to the extent short-term debt is outstanding, it is
6 applied as the first source of capital in the calculation of Allowance for Funds
7 Used During Construction. This results in double counting the use of short-term
8 debt, which acts to the disadvantage of the Company.

9 **B. Financing Overview**

10 **Q. What is the Company's financing strategy?**

11 A. The Company expects a high level and continuing need of capital expenditures
12 for additions to infrastructure over the next five years, reflecting projected
13 customer growth, technology, distribution system replacement, and improvement
14 and reinforcement projects. In 2008, utility capital expenditures are estimated to
15 be between \$90 and \$100 million, and over the 2008 through 2012 period,
16 between \$500 and \$600 million. About 10 percent of these expected capital
17 expenditures will be in or will serve the Company's Washington service territory.

18 **Q. What is the Company's strategy for funding these ongoing capital
19 expenditures?**

20 A. To fund these ongoing capital expenditures, the Company seeks to maintain a
21 strong capital structure and solid investment grade credit ratings. Generally the
22 Company targets a capital structure consisting of 45 to 50 percent common stock

1 equity and 50 to 55 percent long-term and short-term debt. As mentioned
2 above, short-term debt is not used to finance long-term assets but rather is used
3 to fund seasonal working capital requirements. Achieving the target capital
4 structure and maintaining sufficient liquidity are necessary to maintain attractive
5 credit ratings and have access to capital markets at reasonable rates. Over the
6 last three years, the Company has maintained an equity ratio (excluding short-
7 term debt) of 52 percent or higher.

8 **Q. What are the Company's current credit ratings?**

9 A. The Company's senior secured long-term debt is rated AA- by Standard and
10 Poor's (S&P), and A2 by Moody's. The Company's commercial paper ratings
11 are A-1+ from S&P and P-1 from Moody's. S&P's ratings outlook is stable, while
12 Moody's is Positive for the Company.

13 **Q. These are strong investment-grade ratings. How does this benefit**
14 **customers?**

15 A. Credit ratings directly affect the Company's cost of capital. Strong credit ratings
16 reduce borrowing costs for utilities which, in turn, are passed on to customers in
17 their rates. Also, during periods of credit disruptions, as occurred during the
18 second half of 2007, companies with strong credit ratings have continued access
19 to less expensive sources of capital than those with weaker ratings. During the
20 recent credit crunch, many utilities could not access the commercial paper
21 market and had to resort to higher-cost back-up lines of credit. NW Natural's

1 strong commercial paper ratings allowed it unfettered access to low-cost
2 commercial paper throughout last year's difficult market periods.

3 **Q. What actions has NW Natural taken regarding its financing since its last**
4 **Washington rate case?**

5 A. Since the last rate case in its Washington jurisdiction, the Company has retired
6 six (6) issues of long-term debt, issued three (3) series of new long-term debt,
7 entered into a new 5-year back-up credit facility, and repurchased common stock
8 to maintain a balanced capital structure.

9 **Q. Please describe the Company's debt-related transactions since the**
10 **Company's last Washington general rate case.**

11 A. Long-term debt retirements include \$15 million in 2005, \$8 million in 2006, and
12 \$29.5 million in 2007. The Company issued \$50 million in 2005 and \$25 million
13 in 2006. In May 2007, the Company entered into a credit agreement for
14 unsecured revolving loans totaling \$250 million with a syndication of lenders,
15 replacing the prior \$200 million bilateral credit agreements which were
16 terminated. The new credit agreement is available and committed for a term of
17 five years expiring on May 31, 2012, and may be extended for additional one-
18 year periods subject to lender approval. The credit agreement continues to be
19 used primarily as back-up credit support for the notes payable issued under the
20 Company's commercial paper program. Commercial paper borrowing provides
21 the liquidity to meet our working capital and interim financing requirements.

1 **Q. Please describe the Company's equity-related transactions since the**
2 **Company's last Washington general rate case.**

3 A. The Company repurchased a total of 410,200 shares in 2005, 395,500 shares in
4 2006 and 963,428 shares in 2007. This amounted to over \$75 million of shares
5 repurchased. These repurchases helped maintain a balanced capital structure
6 and prevented the equity ratio excluding short-term debt from climbing
7 significantly above 52 percent. The Company also completed an odd-lot share
8 buyback program which resulted in a net repurchase of 10,188 shares.

9 **C. Capital Structure**

10 **Q. What capital structure is the Company proposing for this proceeding?**

11 A. The Company is proposing to use the capital structure based on an average of
12 the twelve months ending as of the end of the test period, September 30, 2007.

13 **Q. Why is this appropriate?**

14 A. The proposed capital structure of 44.23 percent long-term debt, 5.03 percent
15 short-term debt and 50.74 percent common equity is the Company's actual
16 average capital structure for the test period. It also reflects the Company's
17 expectation of the capital structure that will be maintained for the foreseeable
18 future. And while the equity ratio is slightly higher than the Company's target,
19 this provides some measure of safety in the event the Company experiences any
20 financial challenges.

21 ///

22 ///

1 D. Embedded Cost of Debt

2 **Q. How did the Company determine the embedded cost of debt for this**
3 **proceeding?**

4 A. The calculation of the embedded cost of debt is consistent with past
5 proceedings. The cost of debt was calculated for each issue based on each
6 debt series' interest rate and net proceeds. This produces a bond yield to
7 maturity for each series as of the issuance date. The net proceeds of series
8 issued to refinance a higher cost bond were reduced to reflect the pre-tax
9 premium and unamortized costs, if any, associated with retiring the higher cost
10 bond. The bond yield was then multiplied by the principal amount outstanding of
11 each debt issue, resulting in an annualized cost of each debt issue. The total
12 annualized cost of debt was calculated by summing the annual cost of each debt
13 issue. This annualized cost was divided by the total principal amount of debt
14 outstanding to produce the weighted average cost, or embedded cost of the
15 Company's debt. See, *Exhibit No.____ (CAM-3)*.

16 **III. Decoupling Mechanism**

17 **Q. Please explain why the Company is seeking to implement decoupling in**
18 **this proceeding.**

19 A. NW Natural is seeking to implement decoupling in Washington for several
20 important reasons, including the following:

- 21 • Sound Ratemaking Policy: As a matter of ratemaking policy, decoupling
22 is necessary to ensure that the Company has an opportunity to recover its

1 fixed costs in the face of the reductions in customer usage that will occur
2 as customers in the Company's Washington service territory implement
3 conservation measures. As discussed in the testimony of Mr. Ronald J.
4 Amen, the proposed increase in customer charges will still fall short of
5 recovering the Company's fixed costs of providing service to individual
6 residential and small commercial customers. See, *Exhibit No. ____ (RJA-1,*
7 *page 17)*. Rather, most of the Company's fixed costs will continue to be
8 recovered through volumetric, or usage based, charges. As customers
9 decrease their usage in response to conservation efforts, the Company
10 will fail to fully recover its fixed costs. A decoupling mechanism is
11 necessary to enable the Company to recover its fixed costs and have an
12 opportunity to earn a reasonable return on its utility operations in
13 Washington.

- 14 • Good Public Policy: Without a decoupling mechanism, the Company acts
15 against its own economic interests – and the interests of its shareholders
16 – when it promotes energy conservation. So long as a portion of fixed
17 cost recovery is allocated to the volumetric charge, the economic interest
18 of the Company is threatened when energy conservation is promoted and
19 customers are encouraged to use less of its product. The interests of the
20 Company and its shareholders need to be aligned with the interests of its
21 customers. A decoupling mechanism achieves this alignment of

1 objectives, and removes the economic disincentive otherwise associated
2 with promoting conservation.

- 3 • Consistent with Commission Precedent: The Commission has previously
4 endorsed the ratemaking principles underlying decoupling, and has
5 approved decoupling mechanisms that are currently in place on an
6 experimental basis for two Washington gas utilities, Cascade Natural Gas
7 Corporation and Avista Utilities. NW Natural developed its proposal with
8 this precedent in mind, and has incorporated key features of these
9 existing mechanisms given the importance attached to these features by
10 the Commission. In addition, we are proposing elements that are not
11 included in the existing mechanisms of the other natural gas utilities in
12 Washington. These additional elements provide benefits to customers,
13 and take advantage of the Company's technological capabilities.

- 14 • Existing Company Practice in Oregon: The decoupling mechanism that
15 the Company proposes in this proceeding has been in place in the
16 Company's Oregon service territory, which comprises about 90 percent of
17 the Company's customer base, since October 1, 2002 (the weather-
18 adjustment component became effective in August 2003).¹ From a
19 matter of fairness to our entire customer base, and to take advantage of
20 administrative efficiencies, it makes sense for the Company to expand the

1 Oregon Commission Orders for each of these dockets are included in the Company's filed workpapers

1 same decoupling mechanism to the remaining 10 percent of our customer
2 base in Washington.

3 **Q. Please explain why ratemaking practices create a need for a decoupling**
4 **mechanism.**

5 A. Natural gas utilities incur two types of costs in order to serve customers: fixed
6 costs and variable costs. For residential and small commercial customers, these
7 costs are typically recovered through two types of charges: a customer charge
8 and a usage, or volumetric charge. The customer charge is a fixed monthly
9 dollar amount per customer that is unrelated to the amount of natural gas used
10 by the customer. The volumetric charge is a per therm charge that is based on
11 metered gas usage. The customer charge is commonly set at a level that does
12 not recover the utility's actual monthly fixed cost per customer; to make up the
13 difference, the volumetric charge is increased such that at an expected level of
14 usage, total fixed costs are recovered.

15 Once rates are set to provide for fixed cost recovery at "expected levels"
16 of customer usage, the utility has a disincentive to take any action to encourage
17 customers to reduce consumption, such as through the promotion of
18 conservation and energy efficiency. The reduction in gas usage reduces the
19 utility's net revenue, and thus its ability to recover its fixed costs. So long as a
20 portion of fixed costs are recovered through volumetric charges, the utility will be
21 disinclined to take any action that might cause a reduction in usage per
22 customer.

1 **Q. What portion of fixed costs would continue to be recovered through**
2 **volumetric charges under the Company's rate design proposals in this**
3 **proceeding?**

4 A. As presented in the testimony of Mr. David A. Heintz, the total fixed cost
5 associated with serving the average residential customer is \$363.55 annually, or
6 \$30.30 per month. See, *Exhibit No. _____ (DAH-1)*. The rate design proposed in
7 this proceeding increases the monthly residential customer charge from \$5.00 to
8 \$12.00. This leaves about 60 percent of the Company's fixed cost recovery tied
9 to volumetric charges.

10 For small commercial firm sales service (Rate Schedule 3), the total fixed
11 cost associated with serving the average customer is \$1,231.62 annually, or
12 \$102.63 per month. The rate design proposed in this proceeding increases the
13 monthly customer charge from \$10.50 to \$21.00. This would leave about 80
14 percent of the Company's fixed cost recovery tied to volumetric charges.

15 **Q. What are the implications of these rate design proposals?**

16 A. Given the substantial portion of fixed cost recovery allocated to volumetric
17 charges, the Company has a disincentive to promote conservation in its
18 Washington service territory. Success in assisting our customers in reducing
19 usage would result in economic harm to the Company, as it would guarantee an
20 under-recovery of the Company's fixed costs. As a matter of sound ratemaking
21 policy, it is essential that NW Natural be authorized to implement its decoupling
22 mechanism in this proceeding.

1 **Q. Please explain how public policy supports the implementation of a**
2 **decoupling mechanism as proposed in this proceeding.**

3 A. The Commission has recognized the public policy reasons that underlie the use
4 of decoupling mechanisms. In March 2005, the Commission commenced a
5 preliminary rulemaking proceeding to consider possible issuance of
6 administrative rules for natural gas companies pertaining to rate and accounting
7 methods to separate or “decouple” utility recovery of fixed costs from the volume
8 of its commodity sales. Although the Commission declined to proceed with a
9 formal rulemaking given the “variety of alternative approaches to the various
10 issues” and the “significant geographic, economic and technological differences
11 [among] the four natural gas companies doing business in Washington and the
12 populations they serve,” the Commission indicated “[a]s a matter of policy” that it
13 “favors utility efforts to accomplish cost-effective conservation that reduces both
14 the utility’s costs and enables consumers to manage their natural gas bills.” The
15 Commission invited companies to offer decoupling proposals in individual cases,
16 stating:

17 “Companies that perceive that a decoupling
18 mechanism would overcome disincentives to their
19 offering such conservation programs should include a
20 decoupling mechanism in a future general rate case
21 filing.”²
22

23 For the reasons described above, NW Natural believes that a decoupling
24 mechanism is necessary in Washington to overcome the disincentives that

1 currently exist – and will continue to exist under the rate design proposed in this
2 proceeding – to the Company’s promotion of conservation to its Washington
3 customers.

4 **Q. Have these public policy objectives previously been considered in**
5 **Commission proceedings?**

6 A. Yes. Parties in previous natural gas rate proceedings have offered testimony
7 supporting the public policy objectives of decoupling. Commission Staff, for
8 example, offered the following testimony in a recent natural gas rate proceeding:

9 “In making the company indifferent to changes in
10 customer usage, decoupling removes a utility’s
11 disincentive to promote energy efficiency. Under
12 current rate structures, revenues are largely
13 generated through volumetric charges; therefore,
14 reducing energy use may result in lower profits for the
15 utility and may compromise the ability of the utility to
16 recover its fixed costs. A decoupling mechanism,
17 which restores to the utility the margins ‘lost’ due to
18 customer efficiency, would then allow the utility to
19 pursue energy efficiency without losing profits and
20 make it more likely that it would recover its fixed
21 costs.”³
22

23 From Staff’s perspective, the goal of decoupling “is to align ratemaking with the
24 policy goal of encouraging more efficient use of energy and to restore the
25 Company’s margin revenue lost from the test year due to conservation.”⁴

2 See, *Summary, Analysis of Comments and Decision to Close Docket Without Action, WUTC Docket No. UG-050369.*

3 See, *WUTC Docket UG-060256, Cascade Natural Gas Corporation, Response Testimony of Joelle Steward, pages 3-4.*

4 *Id.* at 7.

1 The NW Energy Coalition has also offered policy testimony which strongly
2 supports implementation of decoupling. According to its testimony in a recent
3 natural gas utility rate proceeding in Washington:

4 “A properly structured decoupling mechanism
5 provides benefits to both consumers and the utility by:
6 (a) reducing volatility in utility earnings and consumer
7 bills due to weather; (b) reducing volatility in utility
8 earnings due to changes in commodity costs and
9 business conditions; and (c) removing disincentives to
10 the acquisition and encouragement of energy
11 efficiency and other economically and
12 environmentally efficient resource decisions, such as
13 distributed generation on the customer’s side of the
14 meter. All of these benefits lower Company and
15 customer costs.”⁵
16

17 In particular, the NW Energy Coalition emphasizes the importance of overcoming
18 the disincentives to conserve energy that are embedded in traditional regulation:

19 “Breaking the link between the utility’s commodity
20 sales and revenues removes both the utility’s
21 incentive to increase energy sales and the
22 disincentives to run effective energy efficiency
23 programs or invest in or encourage other activities
24 that may reduce load. Decision-making can then
25 focus on making least-cost investments reduce
26 throughput. The result is a better alignment of
27 shareholder, management and customer interests to
28 provide for more economically and environmentally
29 efficient resource decisions. A decoupling
30 mechanism is essential to establishing a corporate
31 culture that promotes aggressive cost-effective
32 conservation investments. A decoupling mechanism
33 is able to do this much more successfully and
34 comprehensively than other alternatives.”⁶
35

⁵ See, *WUTC Docket UG-060256, Cascade Natural Gas Corporation, Direct Testimony of Steven D. Weiss, pages 3-4.*

⁶ *Id.* at 7.

1 NW Natural agrees with the public policy objectives, as stated by these parties.
2 For the reasons described in the direct testimony of Mr. William R. Edmonds, the
3 Company is committed to ramping up conservation efforts in its Washington
4 service territory, provided that doing so would not be inconsistent with the
5 interests of the Company and its shareholders. *See, Exhibit No.____ (WRE-1).*
6 We believe that implementation of the decoupling mechanism proposed in this
7 case is essential to align the interests of the Company's management and
8 shareholders with the interests of the Company's Washington customers.

9 **Q. Please describe your understanding of previous Commission precedent**
10 **with respect to decoupling mechanisms for gas utilities.**

11 A. Since the beginning of 2007, the Commission has approved decoupling
12 mechanisms for two Washington natural gas utilities. In January 2007, the
13 Commission authorized Cascade Natural Gas Corporation ("Cascade") to
14 implement a "partial" decoupling mechanism (*i.e.*, the scope includes only the
15 non-weather related effects that cause changes in usage such as customer
16 conservation and energy efficiency improvements) on a pilot basis for a three-
17 year period.⁷ Under the decoupling mechanism approved for Cascade, the utility
18 continues to bear the risk for weather-related changes in usage by customers.
19 The mechanism applies to residential and commercial customers, and
20 Cascade's recovery of deferred margin is subject to an earnings test. Moreover,
21 Cascade is required to achieve targets in an approved conservation plan.

⁷ See, Appendix A of WUTC Order No.05 dated January 12, 2007, Docket UG-060256.

1 Cascade is required to conduct an evaluation of the decoupling mechanism
2 before extending the program beyond the three-year pilot period.

3 In February 2007, the Commission approved a multi-party settlement
4 (among all parties except Public Counsel and The Energy Project) under which
5 Avista Utilities (Avista) was authorized to implement decoupling on a pilot basis
6 for residential and small commercial natural gas customers.⁸ Under the
7 decoupling mechanism approved for Avista, 90 percent of the margin difference
8 due to conservation would be deferred for recovery, subject to an earnings test.
9 Avista is also required to achieve specific conservation targets. As in the case of
10 Cascade, variations in usage due to weather were excluded from the calculation
11 of margin deferrals. In addition, annual rate changes were limited to no more
12 than 2 percent. Avista's ability to continue the decoupling mechanism after the
13 three-year pilot term is subject to an evaluation of results.

14 **Q. How is NW Natural's proposal consistent with the precedent set by the**
15 **Commission?**

16 A. We have incorporated the following design features into the proposed
17 decoupling mechanism to comport with the Commission's precedent:

- 18 • Earnings Test: Recovery of deferred amounts would be subject to an
19 earnings test, such as is currently in place for Cascade and Avista. The
20 Company would record the monthly deferrals generated by operation of
21 the decoupling mechanism, but amortization of the deferred amounts in

1 rates would be subject to an earnings test. If the Company is already
2 earning at or above its allowed return on equity on a Washington
3 jurisdictional basis, it would be precluded from recovering deferred
4 amounts so long as that situation continues. This earnings test will not
5 apply to the Company's real-time weather adjustment mechanism,
6 discussed below.

- 7 • Pilot Program: The Company proposes a three-year pilot period, similar
8 to that approved for Cascade and Avista. The Company would conduct
9 an evaluation prior to seeking to extend the term of the program.
- 10 • Achievement of Conservation Targets: As described in the testimony of
11 Mr. William R. Edmonds, as part of the implementation of the decoupling
12 mechanism, the Company would ramp up its conservation efforts in its
13 Washington service territory. *See, Exhibit No. _____ (WRE-1)*. Similar to
14 the Cascade process, the Company would submit an energy efficiency
15 plan for the Commission's review and approval, and that energy efficiency
16 plan would include targets that the Company would be expected to
17 achieve in connection with its implementation of the decoupling
18 mechanism.

19 **Q. Are there other elements of NW Natural's proposal that represent**
20 **improvements over the decoupling mechanisms approved for Cascade and**
21 **Avista?**

8 See, WUTC Order No. 04 dated February 1, 2007, Docket UG-060518.

1 A. Yes. We also propose a weather-related component that will provide immediate
2 benefits to both the Company and our customers. As discussed below, the
3 proposed decoupling mechanism has two components. The first component is a
4 partial decoupling mechanism that addresses non-weather-related changes in
5 fixed cost recovery, similar to the partial decoupling mechanisms that are
6 currently in place for Cascade and Avista. The second component is a weather
7 adjustment mechanism that addresses changes in customer usage due to
8 weather. The addition of this feature represents a substantial improvement over
9 the decoupling mechanisms in place for Cascade and Avista, as it reduces the
10 variability in our customers' bills during the heating season. The proposed
11 weather adjustment mechanism is applied only to that portion of the volumetric
12 charge that is designed to recover the Company's fixed costs. The proposed
13 weather adjustment will reflect actual weather events within the current billing
14 period, so that customers and the Company see immediate benefits.
15 Specifically, the effect of the weather adjustment on customer bills is that the
16 volumetric charge will be lower in colder-than-normal months when gas usage
17 typically increases, and the volumetric charge will be higher in warmer-than-
18 normal months when gas usage typically decreases.

19 **Q. Has the Commission previously considered decoupling proposals that**
20 **include a weather-related component?**

21 A. The proposal initially offered in the Cascade proceeding included a weather-
22 related component, but the mechanism recommended to the Commission in the

1 all-party stipulation in that case did not include the weather-related element of
2 the mechanism. An important difference, however, is that Cascade does not
3 have the capability in its billing system that would allow the weather-related
4 impacts to be adjusted on a monthly, “real-time” basis. Under the Cascade
5 proposal, the monthly deviations due to changes in weather-related usage would
6 have been deferred for an entire twelve month period, with the over- or under-
7 recoveries amortized or collected in a subsequent twelve month period.

8 NW Natural has a billing system that can adjust monthly volumetric
9 charges on a customer-specific basis based on changes in weather-related
10 usage. Thus, the customer receives the immediate benefit of a lower charge per
11 therm during a colder-than-normal winter month, thereby reducing the
12 customer’s bill and minimizing variability in bills associated with weather impacts.

13 It appears from the testimony in the Cascade case that this difference was a
14 material consideration in abandoning the weather-related component of the
15 Cascade proposal:

16 “[T]he issue is that a weather adjustment would cause
17 increased and unacceptable bill volatility. The
18 problem is that Cascade’s limited billing system
19 cannot do a real-time adjustment such as NW
20 Natural’s WARM decoupling mechanism in Oregon.
21 If adjustments cannot be made on each monthly bill
22 that reflects that month’s usage and adjustment, a
23 deferral is generated that is returned to customers at
24 a later date—in Cascade’s proposal, it is amortized
25 over the following year. The concern is that if a
26 warmer-than-normal winter were followed by a colder-
27 than-normal winter, bills in that second year would be
28 higher than they would be without decoupling. And in

1 a cold winter, that would be an added burden for
2 customers.”⁹

3
4 NW Natural has the capability in its billing system to generate the “real-time”
5 billing adjustments that provide immediate benefits to the Company’s customers,
6 which makes the inclusion of the weather-related feature an improvement over
7 the decoupling mechanisms approved for the other Washington utilities.

8 **Q. Please describe the Company’s proposed decoupling proposal.**

9 A. The Company’s decoupling proposal is comprised of two components that are
10 set forth in two separate schedules. The first component is set forth in Schedule
11 230 “Partial Decoupling Mechanism” (PDM) and the second component is set
12 forth in Schedule 240 “Weather-Adjusted Rate Mechanism” (WARM). These
13 components are referred to collectively as the “decoupling mechanism”. See,
14 *Exhibit No.____ (CAM-5 and CAM-6).*

15 **Q. Please describe the Partial Decoupling Mechanism (PDM).**

16 A. There are two ways in which the PDM affects revenues: (i) the elasticity
17 adjustment, and (ii) the deferral component. The elasticity adjustment adjusts
18 margin recovery for the effects that changes in retail tariff prices are expected to
19 have on use per customer (*i.e.*, customers are expected to reduce consumption
20 if natural gas prices increase). The deferral component is calculated by taking
21 the monthly difference between weather-normalized usage and a calculated
22 baseline usage for each Residential and Commercial customer class. (The
23 baseline usage is determined from actual weather-normalized usage as

9 Id. at 9.

1 determined in this general rate proceeding, adjusted for any subsequent price
2 elasticity effects.) The resulting usage differential is then multiplied by the per
3 therm distribution margin for the applicable customer group. This distribution
4 margin differential is then deferred and amortized, with interest. Coincident with
5 the Company's annual Purchased Gas Adjustment (PGA) filing, the Company
6 would apply an adjustment to the bills of each Residential and Commercial class
7 customer to amortize the deferred balance over the subsequent twelve-month
8 period. The deferral will be a credit (accruing a refund to customers) if the
9 differential is positive, or a debit (accruing a recovery by the Company) if the
10 differential is negative

11 **Q. Please describe the Weather-Adjusted Rate Mechanism (WARM).**

12 A. WARM is a weather-normalization mechanism that allows the Company to
13 recover its fixed costs notwithstanding weather-related changes in customer
14 usage. As described earlier in my testimony, a significant portion of the
15 Company's fixed costs are recovered through volumetric charges. While these
16 costs remain fairly constant, the revenues to recover these costs can vary widely,
17 depending upon weather conditions. Because a large percentage of natural gas
18 usage is devoted to space heating, changes in weather conditions can produce
19 large fluctuations in customer usage. In unusually cold winters when usage
20 levels are high, the utility will over-recover its fixed costs. Conversely, in mild
21 winters, the utility will under-recover its fixed costs. This exposes both
22 customers and the Company to weather-related risks for fixed cost recovery,

1 risks over which neither the Company nor its customers has any control. WARM
2 modifies the rate structure to recognize the need to separately identify and
3 collect the revenues to cover the fixed costs from the revenues which cover the
4 truly usage-related costs, and to do so in a way that immediately benefits both
5 customers and the Company.

6 The formula used to calculate the WARM adjustment is set forth in
7 Schedule 240. The formula compares (1) the actual heating degree-days for
8 each day based on the individual customer's actual beginning and ending meter
9 read dates, and (2) the 20-year average of heating degree days for each day
10 determined using the 20-year average (1987-2006) temperature developed using
11 published weather data from the National Oceanic and Atmospheric
12 Administration, or NOAA. This difference is applied against a statistical
13 coefficient relating heating degree-days to therm use.

14 For the residential customer, there is a limitation on the maximum WARM
15 adjustment increase that will be added to any regular monthly bill during the
16 WARM period, which is twelve dollars (\$12), or twenty-five percent (25%) of the
17 usage portion of that bill, whichever is less. For the commercial customer, the
18 limitation is thirty-five dollars (\$35), or twenty-five percent (25%) of the usage
19 portion of that bill, whichever is less. Amounts not applied to a customer's bill as
20 a result of these limitations are carried forward to the customer's first bill issued
21 following the end of the WARM period.

1 **Q. How does WARM provide immediate benefits for both customers and the**
2 **Company?**

3 A. WARM adjusts the volumetric charge billed for all Rate Schedule 2 residential
4 and all Rate Schedule 3 commercial customers in each month of the WARM
5 Period (bills generated based on meters read after December 1 and on or before
6 May 15) by lowering the volumetric charge in colder-than-normal months, and
7 increasing the volumetric charge in warmer-than-normal months. This “real-time”
8 adjustment also reduces the risk that customers will over-pay for gas distribution
9 service. From the Company’s perspective, WARM is an effective means of
10 reducing weather-related distribution cost recovery risk during the WARM Period.

11 **Q. Please summarize the benefits to NW Natural and its customers of the**
12 **proposed decoupling mechanism, the proposed conservation program.**

13 A. The benefits include:

- 14 • The proposed decoupling mechanism is conceptually sound and proven
15 effective in the Company’s Oregon service territory
- 16 • The proposed decoupling mechanism, combined with the proposed
17 conservation program, aligns the interests of the Company and its
18 customers; customers won’t over pay and the Company won’t under-
19 collect its fixed distribution costs.
- 20 • The disincentives for the Company to provide and promote conservation
21 and energy efficiency programs are removed. Conservation programs are
22 critical to customers’ ability to moderate the impact of rising energy prices.

1

IV. Qualifications

2 **Q. Please describe your educational and professional background.**

3 A. I received a Bachelor of Arts degree in Economics from the University of Oregon,
4 and a Masters of Business Administration from the Claremont Graduate School.

5 I have worked for NW Natural for the last 5 years. Before that I worked for
6 PacifiCorp for 4 years and for Southern California Edison for 17 years. I have
7 had roles in regulation and finance throughout my career.

8 **Q. Does this conclude your direct testimony?**

9 A. Yes.

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