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UG-__ – Decoupling

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I. Introduction & Summary

Q. Please state your name and position with NW Natural.

A. My name is John A. Hanson. I am employed by NW Natural as Director of Integrated Resource Planning and report to the Manager of Rates and Regulatory Affairs. My qualifications appear at the end of my Load Forecast testimony, *Exhibit No. ____ (JAH-1)*.

Q. What is the purpose of your testimony?

A. This testimony supports the proposed tariff, Schedule 190, Distribution Margin Normalization (DMN) and outlines a simple and at the same time elegant approach to decoupling the company's Washington earnings levels from the level of gas sales in Washington. I argue that the company's decoupling proposal is a good policy for the Commission and makes sense from all stakeholder perspectives.

Q. How is your testimony organized?

A. In Section I, I describe NW Natural's DMN proposal, also called decoupling in this testimony. In this section I also answer some questions that might logically be raised about the mechanism and describe how the mechanism would work under a variety of scenarios. Section II expands on the advantages of decoupling to meet multiple regulatory objectives and describes why the company's decoupling proposal is good policy for the Commission to adopt here. Section III examines Commission policy toward Weather Normalization Adjustments and shows that the company's proposal is consistent with past Commission concerns

1 regarding weather normalization adjustments. Section IV offers a brief
2 conclusion.

3 **II. NW Natural's Proposal**

4 A. Distribution Margin Normalization, or Decoupling.

5 **Q. Please summarize the company's DMN proposal.**

6 A. We think the mechanism should be implemented in a simple straightforward
7 manner. The DMN establishes a Use Balancing Account (UBA) as a subaccount
8 of Account 186 in the company's deferred accounts. Each month, the company
9 would compare the actual average use of residential and commercial customers to
10 the expected average use that was determined for these customers in the last rate
11 case. If there is a difference, the difference in therms times the applicable
12 distribution margin would be booked to the UBA as a collection or a refund.
13 Distribution margin is the weighted energy rate applicable to each class less the
14 Weighted Average Cost of Gas and less the average cost of purchased demand
15 associated with firm transportation. At the end of the deferral period in June of
16 each year, the company either refunds to or collects from residential and
17 commercial customers the net balance in the account by refunding or surcharging
18 customers an amount intended to amortize the balance, just as other deferred
19 accounts are administered during the amortization period beginning in October of
20 each year.

21 Note that the company does not propose that all customers be included in
22 the DMN mechanism. We do not include industrial customers because these
23 customers' loads vary from month to month and year to year, and for reasons that

1 are often unrelated to weather or commodity prices. Also, it would not be clear
2 which customer group would bear responsibility for usage deviations in the
3 industrial group. The company prefers to live with the risks these markets hold
4 without decoupling them.

5 As well, the company does not include residential and commercial
6 customers who are new to the system since the rate case test year. That is,
7 residential and commercial customers who joined the system on and after July 1,
8 2003 are not included in the “normalized” group of customers. The company
9 excludes these customers for two reasons. First, we prefer to eliminate
10 controversy about what usage levels to assume for these customer. Second, and
11 of greater importance, we want to preserve our incentive to invest capital
12 prudently when bringing new customers onto the system.

13 B. Washington Energy Efficiency Programs.

14 **Q. Please describe the company’s Washington Energy Efficiency programs.**

15 A. It is difficult to describe Washington programs without some reference to past and
16 present approaches to energy efficiency in Oregon. The company’s Washington
17 residential retrofit conservation program is based on an energy efficiency delivery
18 approach that once existed in Oregon and was largely defined by Oregon Statutes.
19 In Oregon, the company’s energy efficiency programs were transferred to the
20 Energy Trust of Oregon (ETO) and are supported by a public purpose funding
21 mechanism much like the that embodied in Oregon Senate Bill 1149 for electric
22 utilities. To make the transition to the ETO possible, the Oregon Public Utility

1 Commission (OPUC) approved a partial decoupling mechanism applicable to
2 residential and small commercial customers. The company is made whole for the
3 lost distribution margin revenues resulting from the ETO's success in running
4 energy efficiency programs. Going forward in Washington, the company expects
5 to use the ETO's conservation contractors and then modify its Washington
6 approach based on the evolving ETO experience.

7 **Q. What other programs does the company offer in Washington?**

8 A. The company developed a high efficiency furnace rebate program in both
9 Washington and Oregon. The approach has encouraged other participants in the
10 heating appliance supply chain to also offer rebates and agree on common
11 messages and promotions. The program has received national recognition within
12 the community of energy efficiency experts. Since October 1, 2003 the Energy
13 Trust has assumed management of the furnace rebate program. In Oregon, the
14 success of the program does not harm the company financially through lost sales
15 volumes. We would like a similar circumstance to exist in Washington through
16 the DMN or decoupling proposal.

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1 C. Questions About NW Natural's DMN Decoupling Mechanism

2 **Q. Would the DMN proposal restore lost margins for the revenue effects it may**
3 **experience if the company successfully implements energy conservation**
4 **programs in Washington?**

5 A. Yes. The mechanism restores lost margin (fixed costs) due to successfully
6 implemented conservation programs, whether implemented by the company or
7 other entities. That is a major purpose of the mechanism.

8 **Q. Would the DMN proposal restore lost margins for the revenue effects it may**
9 **experience if NW Natural's customers experience warmer than normal**
10 **weather?**

11 A. Yes. The mechanism would restore lost margin due to warmer-than-normal
12 weather and refund excess margin to customers due to colder-than-normal
13 weather. Weather normalization is good public policy because it allows fixed
14 costs to be neither under-collected nor over-collected due to events beyond the
15 company's (and the customers') control.

16 **Q. Would the DMN proposal restore lost margins for the revenue effects it may**
17 **experience if there is a general economic slowdown that negatively affects**
18 **NW Natural's industrial customers?**

19 A. No. The company does not propose to normalize industrial customer class loads
20 in this mechanism, and so lost industrial margins due to an economic slowdown
21 are not recovered in this mechanism. Other customers would not be affected,
22 except through secondary impacts on employees' disposable income, associated
23 with declining industrial and commercial employment.

1 **Q. Would the DMN proposal restore lost margins for the revenue effects it may**
2 **experience if consumption of natural gas were to decrease due to a rise in the**
3 **relative price of natural gas?**

4 A. Yes. The mechanism would restore lost margin (fixed costs) due to reduced
5 consumption in response to higher natural gas prices. The reverse is also true.
6 The mechanism will refund excess revenues due to higher consumption in
7 response to natural gas price decreases. Reduced use of natural gas in response to
8 price increases benefits customers directly through their monthly bills and through
9 the PGA mechanism as peak season gas purchases are reduced and pressure is
10 reduced on purchased off-system capacity.

11 **Q. Would the DMN proposal restore lost margins for the revenue effects the**
12 **company may experience if its residential consumers suffered a significant**
13 **reduction in income that resulted in a reduction in gas consumption?**

14 A. Yes. If there is an economic downturn that causes residential customers to reduce
15 consumption due to income reductions, the mechanism would collect those
16 margins (fixed costs). The reverse is also true. The mechanism will refund
17 excess revenues due to an economic upturn that caused customers to consume
18 more.

19 **Q. Would the DMN proposal restore lost margins for the revenue effects the**
20 **company may experience if a new rate design were successfully implemented**
21 **that reduced natural gas consumption?**

22 A. Yes. The only rate design change likely to reduce annual usage involves an
23 increase in energy rates at the margin of monthly consumption levels. This could

1 take two forms. One approach would be to reduce customer charges with
2 offsetting increases in energy rates. The other more likely change would be a
3 blocked rate design with higher energy charges in the tail block rate and lower
4 charges in the initial block. It should be noted that the company's most recent
5 Long-Run Incremental Cost Study suggests that energy rates (margins) for
6 customers covered by the DMN mechanism are well above LRIC, making such a
7 change an unlikely outcome of economic regulation of public utilities.
8 Nevertheless, such a change would have strong effects on customer gas usage
9 levels.

10 **Q. Would the DMN proposal restore lost margins for the revenue effects it may**
11 **experience if the Company made no efforts to collect unpaid bills?**

12 A. No. Unpaid bills deprive the company of revenue for service rendered but are not
13 related to usage itself. The distribution normalization mechanism does not make
14 the company whole for this.

15 **Q. Would the DMN proposal restore lost margins for the revenue effects the**
16 **company may experience if NW Natural's customer base (number of**
17 **customers) decreased from that assumed in setting rates?**

18 A. No. Customers who leave the system are lost to the company, and their margins
19 are not recovered in the distribution normalization mechanism. In all cases, if any
20 customer leaves, total costs, total revenues and total sales margins decline, but
21 fixed costs are unchanged. The departing customer will either be a "new"
22 customer ("new" since the last rate case), in which case, all germane costs,
23 revenues and associated margins are lost. Alternatively, the departing customer

1 would come from the collection of “rate case” customers who make up the DMN
2 base. In that case, the number of customers in the DMN base will be reduced
3 accordingly (by one, in this instance) and margin deferrals, whether positive or
4 negative, are reduced by the removal of that customer from the count. Because of
5 this the DMN will not accumulate any margins to the deferred account as a result
6 of the customer’s departure.

7 **III. Advantages Of Decoupling**

8 **Q. What, in general terms, is the most important single feature of decoupling?**

9 A. Perhaps the most attractive feature of the DMN mechanism is that it makes the
10 company willing to adopt rate designs that encourage conservation—as well as
11 any and all other cost effective conservation programs that might be devised.
12 Since total margin revenues are no longer linked to sales, energy conservation no
13 longer works against the utility’s financial interests.

14 **Q. What, in general, does the DMN do?**

15 A. DMN allows the company to recover the margin revenue associated with a fixed
16 sales volume regardless of actual sales. It is equivalent (from the company’s
17 perspective) to straight fixed variable rate design, but from the customer’s
18 standpoint, still sends a volumetric price signal. The proposal applies only to the
19 sales associated with residential and commercial customers on the company’s
20 system at the time of the last general rate case. Should actual sales to these
21 customers be lower than the rate case level, the company recovers the margin
22 shortfall. If sales exceed the fixed target, the company refunds the excess margin.

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1 **Q. What are the benefits of the company's DMN decoupling proposal?**

2 A. The company's proposal was intended to serve three major (and some minor)
3 purposes: align the interests of the company and its customers on all aspects of
4 pursuing energy efficiency; remove the effects on earnings of sales variations in
5 the temperature and price sensitive residential and commercial markets; and
6 eliminate the contentiousness in rate cases that can occur regarding the
7 forecasting or estimation of normal use per customer.

8 **Q. How does the proposal align company interests with customer interests?**

9 A. Customers clearly want help from NW Natural regarding how to manage their
10 consumption, and hence, their bills. We want to provide this help. Under the
11 current regulatory structure, however, every therm of gas that a customer saves
12 represents, to NW Natural, lost revenue, unrecovered fixed costs, and earnings
13 problems for shareholders. It is silly for energy utilities to be in conflict with
14 customers on energy efficiency, especially since a customer's total annual usage
15 has almost nothing to do with the company's fixed costs of service and since this
16 conflict is totally created by heavy reliance on volumetric charges. The company
17 will have the same plant investment and the same number of employees
18 regardless of how much natural gas a customer uses. Many observers of
19 economic regulation of energy utilities have recognized that severing the link
20 between sales and a utility's profits is a logical starting point to removing
21 disincentives to energy efficiency. NW Natural agrees. More importantly, the
22 company believes that this proposal removes the potential for conflicting interests
23 between its shareholders and its customers.

1 **Q. How does the DMN proposal eliminate the effects of sales fluctuations on**
2 **earnings?**

3 A. For customers who were on the company's system at the time of the last rate case,
4 the proposal uses deferred accounting to "true up" actual revenues to the level of
5 revenue assumed for each customer in the rate case. In other words, the company
6 recovers its authorized revenue requirement, period.

7 **Q. Does the decoupling mechanism shift risk from shareholders to ratepayers?**

8 A. No. The company's decoupling proposal *reduces* risk for both company and
9 customers; it does not shift risk. Besides variations in customers' bills and the
10 company's earnings caused by variations in the cost of commodity gas, weather
11 variations are the principal source of uncertainty.

12 Weather is a risk borne by gas companies and their customers. Utilities
13 profit with higher earnings during cold weather (while customers suffer higher
14 bills), and suffer poor earnings during warm weather (while customers experience
15 lower bills). NW Natural's DMN mechanism reduces weather risk for both the
16 company and customers. With decoupling, both company and ratepayers benefit
17 as risk is reduced for all parties.

18 **Q. How does the company's proposal remove contentiousness in rate cases?**

19 A. Determining "normal" use per customer can be a very technical and challenging
20 task for both the company and the Commission. A determination of normal use
21 depends on how normal weather is measured, how one measures customers'
22 reactions to weather, and many other variables affecting consumption. Such a

1 determination can be highly complex and technical and therefore fraught with
2 dispute.

3 The DMN proposal solves this problem because the final determination of
4 normal use in a rate case is used as a reference and “trued up to” in each month of
5 each subsequent year, so that neither customers nor company are advantaged or
6 disadvantaged by the Commission’s ultimate decision on normal use per
7 customer. The DMN mechanism provides all parties in a rate case with incentives
8 to accurately estimate expected use per customer. Company and Staff would both
9 be expected to seek to minimize the algebraic sum of dollar amounts flowing
10 through deferred accounts due to weather, price and other sources of use-per-
11 customer fluctuations. The closer rate case estimates are to the subsequently
12 resulting sales levels, the less the chance of being in a predominately collect or
13 refund situation after the rate case. Neither the company nor Staff benefits from
14 trying to affect the level of rates established in the rate case by imposing an
15 unrealistic level of use per customer..

16 The DMN mechanism thus eliminates a source of conflict in rate cases
17 that simply does not need to exist.

18 **Q. Please elaborate on how the company’s decoupling proposal aligns the**
19 **interest of company and Staff in determining normal use per customer.**

20 A. The mechanism should lead parties to try to find the most accurate measure of
21 expected gas use based on expected (normal) weather and prices expected to
22 prevail during the period of time rates are in effect. In greater detail, the
23 company’s proposal uses deferred accounting to “true up” realized revenues to the

1 rate case level of revenue per customer. In the process, the company receives no
2 more or less than the rate case-determined level of revenue per customer. For
3 example, a too-cold measure of normal weather, or an excessively low expected
4 price level, or both, result in high expected energy sales and rate case energy rates
5 that are too low to collect fixed costs during the period of time rates are in effect.
6 By itself, this circumstance works to the disadvantage of the company. However,
7 because of the “truing up” to the rate case level of revenue requirements per
8 customer in the deferral process of the proposed DMN mechanism, the company
9 is made whole in spite of this. The combination of a too warm measure of normal
10 weather and a too high measure of expected rates works to the financial advantage
11 of ratepayers. As intended, after rates are established in a general rate case, the
12 company and customers are made whole for the effects of weather variability and
13 price volatility during the period of time that the mechanism is in effect.

14 **Q. What are the company’s concerns about the use of a Price Elasticity**
15 **Adjustment (PEA) instead of the proposed DMN mechanism?**

16 A. One might use price elasticity estimates to anticipate variations in sales levels
17 resulting from energy price changes and make an appropriate adjustment to rates
18 to account for induced changes in use per customer. However, we must then
19 address the rather difficult and contentious process of actually deriving the price
20 elasticity figure. Agreeing on the calculation of price elasticity could be as
21 technically complex and contentious as the return on equity issue in typical rate
22 cases, with more revenue at stake. The problem with all this is that determination
23 of price elasticity is a tricky business where the “devil” is very much in the

1 details. The company has taken price effects into account in the development of
2 normal use per customer in my Load Forecast exhibit, *Exhibit No. ____ (JAH-2 –*
3 *3)* using one of many methods that might be employed. The difference here is
4 that the company's expected price effects are subject to a *ex poste* true-up
5 whereas the effects of a PEA, whether right or wrong, are not.

6 **Q. What are some of the other advantages of the DMN decoupling proposal?**

7 A. Another advantage of decoupling is that it doesn't unnecessarily interfere with
8 price signals. Decoupling preserves the incentive that volumetric rate designs
9 provide customers to limit usage during peak periods, helping to rationalize
10 capacity utilization efficiently. From the company's perspective, however, costs
11 are recovered as they are incurred just as though retail rates used a straight fixed
12 variable rate design.

13 As well, deferred revenue requirement (collections or refunds) can be held
14 in a deferred account until there are opportunities to amortize balances when the
15 amortization does not exacerbate high rate levels. For example, if it appears
16 likely that NW Natural customers will experience a rate reduction in the next
17 PGA cycle due to lower gas costs, that would be a good time to flow through
18 surcharges, if any. Or, if there is a cold winter and the company has refunds,
19 refunds can be returned to customers somewhat contemporaneously in a lump
20 sum to help offset the higher heating bills. The company and Staff have worked
21 together to manage deferred accounts and rate changes for rate stability, and
22 greater opportunities would exist here.

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1 **III. Commission Policy Toward Weather Normalization Adjustments**

2 **Q. Has the WUTC expressed concerns about decoupling for natural gas LDCs?**

3 A. I don't believe the Commission has addressed decoupling in the broad sense for
4 gas LDCs, but it has expressed several views regarding Weather Normalization
5 Adjustments as proposed by Washington Natural Gas (now Puget Sound Energy)
6 in the UG-920840 docket. *See, WUTC Order No. UG-920840, at pages 40 and*
7 *41.* Washington Natural proposed a real time adjustment mechanism to
8 customers' monthly bills to compensate for the effects of weather on sales
9 volumes.

10 Decoupling as proposed by NW Natural covers the effects of weather
11 variability, as well as price variability, economic cycles, energy-efficiency
12 programs, conservation-oriented moral suasion through the press and electronic
13 media, and other unpredictable events affecting energy use.

14 **Q. What did the Commission say about Weather Normalization Adjustments**
15 **(WNA) from the perspective of ratepayers?**

16 A. The Commission concluded that the WNA had not been shown to have a benefit
17 to ratepayers. Ratepayers believed that this adjustment will make their bills
18 unpredictable and difficult to understand and verify. Staff observed that the
19 mechanism would generate the same adjustment to bills that are for different
20 billing periods, and questioned the allocation of the adjustment to individual
21 customers within a class.

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23 /////

1 **Q. Do these ratepayer concerns apply to the company's decoupling proposal?**

2 A. No. Because the company proposes to use a deferred accounting approach,
3 monthly bills are completely predictable and easily verified. In October of each
4 year, a one-year temporary increment or decrement would be included in tariff
5 rates for the residential and commercial classes of service, with separate
6 temporary increments or decrements applied to each class.

7 Over a long period of time following a rate case, the expected value of the
8 distribution margin component of energy bills is constant and the expected value
9 will actually be experienced regardless of weather patterns. Ratepayers benefit
10 through the predictability (and near certainty) of the annual cost of the distribution
11 margin component of their annual bills over a long period of time. The expected
12 value of month-to-month and year-to-year variability remains much the same as
13 without the mechanism. However, when a warm heating season produces a
14 positive temporary increment that is subsequently applied to rates in the next
15 heating season, and the next heating season turns out to be exceptionally colder
16 than normal, opportunities exist for mid-heating season reductions in temporary
17 increments to reduce bill variability. Similarly, a very warm heating season
18 following a moderately cold heating season could lead to a mid-season increase to
19 temporary increments.

20 **Q. Will the decoupling mechanism result in a lower cost of capital for the**
21 **company?**

22 A. The comparison group of companies used in Discounted Cash Flow analysis to
23 determine Northwest Natural's allowed rate of return on equity (ROE) tend to

1 already have weather normalization and/or partial decoupling mechanisms.
2 Hence, if the commission does not approve the proposed decoupling mechanism,
3 or some variant of the proposed mechanism, a premium should be imputed to the
4 company's allowed ROE coming out of this rate case to reflect differences from
5 the comparison group of companies. For a comparable- group company without
6 decoupling or a WNA, allowed equity returns should be higher than for the group
7 average. As a consequence of recognizing comparable group attributes, the
8 company's ratepayers benefit from the lower ROE permitted by decoupling
9 because an ROE premium would not have to be applied in this rate case.

10 **Q. What did the Commission say about Washington Natural's WNA mechanism**
11 **from an Least Cost Planning or Integrated Resource Planning standpoint?**

12 A. The Commission stated that “. . . it did nothing to remove the company's
13 incentive to sell more gas. It provided no incentive for the customer to conserve –
14 lower bills during colder months might actually dull the incentive to conserve.
15 Because the company's revenues are temperature-sensitive, it has an incentive to
16 improve load factor to smooth out volatility. To the extent that this adjustment
17 would levelize revenues and remove temperature sensitivity, the incentive to
18 improve load factor may also be reduced.”

19 In contrast to a WNA, full decoupling removes the incentive to sell more
20 gas to existing customers. The benefits of added appliances flow directly to
21 ratepayers during the next gas cost tracking cycle when new temporary
22 increments or decrements to rates are determined. Incentives for the company to
23 encourage customers to install additional load-factor-improving appliances are

1 reduced but not eliminated. Of course, since new customer additions are excluded
2 from decoupling coverage, incentives to attract new customers with a full
3 complement of gas appliances remains as strong as before.

4 Customers' incentives to conserve are preserved when compared to
5 straight-fixed-variable rate designs. Since most of the company's fixed
6 distribution system costs are recovered in volumetric rates, it is as though each
7 therm of gas has an energy tax mark-up over the commodity cost of gas. With a
8 straight fixed variable rate design, distribution system charges would be recovered
9 in fixed monthly customer and demand charges, with near-zero volumetric
10 distribution system charges.

11 Customer incentives to conserve remain strong under decoupling. The
12 few cents per therm variations in price from one heating season to the next due to
13 decoupling would be small in relationship to the variations caused by changes in
14 the commodity cost of gas.

15 **IV. Conclusion**

16 **Q. What do you conclude about the company's DMN decoupling mechanism?**

17 A. I think the company's proposal, in total, provides benefits for customers and
18 shareholders alike and is consistent with the Commission's concerns expressed in
19 the UG-920840 Washington Natural Gas docket. The company asks the
20 Commission to adopt the DMN decoupling mechanism as filed for a five-year
21 experimental term. Five years should be a long enough term to observe both
22 refunds and collections flow through the Use Balancing Account. As such, the
23 deferral period would begin at the conclusion of this rate case and the first

1 amortization adjustment to temporary increments could take place as early as
2 October 1, 2004, or the following October 1, 2005, if the case extends through the
3 full suspension period.

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

5 **A. Yes.**