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August 31, 2009

NWN Advice No. OPUC 09-12

### **VIA ELECTRONIC FILING**

Public Utility Commission of Oregon 550 Capitol Street, N.E., Suite 215 P.O. Box 2148 Salem, Oregon 97308-2148

Attn: Filing Center

Re: Annual Purchased Gas Cost and Technical Rate Adjustments

Northwest Natural Gas Company, dba NW Natural ("NW Natural" or the "Company"), files herewith revisions to its Tariff, P.U.C. Or. 24, as listed on the attached Table of Tariff Sheet Revisions. The Tariff sheets are stated to become effective with service on and after November 1, 2009.

### Introduction and Summary

The first purpose of this filing is to (a) revise rates for the effects of changes in purchased gas costs; (b) revise rates for the further effect of removing temporary rate adjustments incorporated into rates effective November 1, 2008; and (c) apply new temporary rate adjustments for inclusion in rates effective November 1, 2009. The Company revises rates for these purposes annually; its last filing was effective November 1, 2008.

The second purpose of this filing is to make temporary adjustments to base rates for the costs associated with the Company's System Integrity Management Program (SIMP) for Bare Steel, Pipeline Integrity Management Program, and Distribution Integrity Management Program, including the application of the final carry over balance from the Geo-Hazard Program.

The third purpose of this filing is to make permanent adjustments to base rates for (a) the inclusion in rates of a portion of Mist storage capacity previously used for upstream sales capacity, and; (b) price elasticity effects of the rate increase reflected in this filing.

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If the effects of the temporary rate increments were permanent, the result of all components of the rate changes would be a decrease in the Company's revenues from its Oregon operations of about \$174,149,240 or about 19.85%.

### Effect on Customer Bills

The average residential Schedule 2 bill will decrease by 16.9%; the commercial Schedule 3 bill will decrease by 19.8%; the commercial Schedule 31 firm sales service bill will decrease by 24.6% and; the bill for the average Schedule 32 industrial firm sales customer will decrease by 29.2%.

The monthly bill of the average residential customer served under Schedule 2 using 55 therms per month will decrease by \$13.93. The monthly decrease for the average commercial Schedule 3 customer using 230 therms is \$60.30.

See Exhibit B of this filing for materials in support of the application of all adjustments to the applicable rate schedules.

In a separate filing, the Company has requested Commission approval to increase the portion of the Schedule 301 public purposes charge that funds the programs managed by the Energy Trust of Oregon. If approved, the combined effect of both of these filings would be a net bill decrease to residential customers of about 14.5%, and a net bill decrease to commercial customers of about 17.5%

Additional details about this combined filing are described below.

### I. UM 1286 PGA Filing Guidelines

Exhibit A of this filing contains the data associated with the PGA Filing Guidelines Sections II, III, and IV, including a complete index of the location of the required information, as prescribed by OPUC Order Nos. 09-263 / 09-248 in Docket UM 1286.

The PGA Filing Guidelines, Section V has been submitted under separate cover. Some of the information contained in this submission is confidential. The Company has filed a motion for a protective order in this proceeding and will provide the confidential data upon issuance of the protective order.

### II. Purchased Gas Cost Adjustment (PGA)

This portion of the filing will pass through (1) changes in the cost of gas purchased by the Company from its natural gas suppliers, including the costs of purchasing financial derivative products to limit customers' exposure to gas cost

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volatility, and (2) changes in the cost of pipeline and storage capacity under contract with the Company's pipeline transporters.

This filing applies the method for calculating the proposed Annual Sales Weighted Average Cost of Gas ("WACOG") that is set forth in a joint party stipulation approved by the Commission in OPUC Order No. 08-504, Docket UM 1286, and as further prescribed by the PGA Filing Guidelines, Section III (1)(d) of OPUC Order Nos. 09-263 / 09-248 in Docket UM 1286. In addition, this filing revises the Winter Sales WACOG option that is available to the Company's Rate Schedule 31 and 32 sales service customers.

This filing also applies the methods for treatment of storage inventory gas and Annual Sales WACOG calculations agreed to between the Staff and the Company in August, 2001, as described in more detail in the Company's PGA filing dated August 14, 2001, NWN Advice No. OPUC 01-18.

The total effect of the PGA portion of this filing is to decrease the Company's annual revenues by about \$174,149,240. The effect of the change in gas costs is a decrease of \$171,542,293, which results in a proposed Annual Sales WACOG of \$0.59044 per therm, and a proposed Winter Sales WACOG of \$0.57227.

The effect of the change in demand charges is a decrease in total demand charges of about \$1,163,549. However, the volumes used to derive the demand charge in this filing are lower than the volumes in the previous PGA filing, which results in a proposed firm service pipeline capacity charge of \$0.12502 per therm, or \$1.87 per therm of MDDV, and a proposed interruptible service pipeline capacity charge of \$0.01486 per therm, all of which are higher than the respective charges currently in effect.

If there are changes in the Company's gas supply costs or costs associated with pipeline services and charges from the levels used to develop the purchased gas adjustments included in this filing, then the Company will reflect such changes to Oregon gas customers in a manner approved by the Commission.

### III. <u>Temporary Rate Adjustments</u>

This portion of the filing makes a number of periodic temporary technical adjustments to rates in order to amortize credit or debit balances in its revenue and gas cost balancing accounts and certain other approved Federal Energy Regulatory Commission (FERC) deferred accounts, Accounts 186 and 191, respectively. The rate increments associated with the amortization of the applicable deferral accounts have been calculated in accordance with the PGA Filing Guidelines, Section III(1)(a) as prescribed by OPUC Order Nos. 09-263 / 09-248 in Docket UM 1286.

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This portion of the filing is in compliance with ORS 757.259 (2003), which authorizes deferred utility expenses or revenues to be allowed (amortized) in rates to the extent authorized by the Commission in a proceeding to change rates. All of the deferrals included in this filing occurred with appropriate application by Commission authorization, as rate orders or under approved tariffs.

This filing does not a require a review of earnings due to the elimination of the fall earnings review pursuant to OPUC Order No. 08-504 in Docket UM 1286. For the purpose of recovering "other" deferred balances as outlined in ORS 757.259, the required earnings review covering the period(s) during which the deferrals in this filing occurred was performed with Staff's adoption of the 2009 Spring Earnings Review. Page 17 of Exhibit B shows the total proposed average change being applied to billing rates a decrease of \$24.5 million, which is below the current three percent limit of \$27.7 million.

The net effect of this portion of the filing is to decrease the Company's annual revenues by \$1,826,589. The effect of removing the temporary adjustments placed into rates November 1, 2008 is an increase of \$10,194,193. The effect of applying the new temporary rate adjustments is a decrease of \$12,020,782.

### IV. Base Rate Adjustments

The effect of this portion of the filing is to decrease the Company's annual revenues by \$780,358.

This portion of the filing makes a number of temporary and permanent adjustments to customer rates as follows:

System Integrity Management Programs. This filing applies temporary adjustments to permanent rates that relate to Part A: Bare Steel, Part B: Transmission Integrity management (TIMP); and Part C: Distribution Integrity Management (DIMP) pursuant to a Stipulation adopted by the Commission in Docket UM 1406, as described in Schedule 177.

Geohazard. This filing applies temporary adjustments to permanent rates that relate to the carry over balance associated with the Geohazard program, which was implemented pursuant to a Stipulation and Agreement adopted by the Commission in Docket UM 1030 and which is now terminated.

<u>Price Elasticity</u>. This filing applies the permanent effects of the price elasticity adjustment pursuant to a Stipulation and Agreement adopted by the Commission in Docket UG 143 and described in Schedule 163.

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Mist Recall. This adjustment represents the permanent rate effects of the recall of 100,000 therms per day of Mist reservoir capacity and 50,000 therms per day of compression capacity from upstream market activities for use by the Company's core customers. This adjustment has been applied to rate schedules in the same manner as all Mist expansion projects, as described in Schedule 176.

The Company requests that the tariff sheets filed herewith be permitted to become effective with service on and after November 1, 2009.

Copies of this letter and the filing made herewith are available in the Company's main office in Oregon and on its website at <a href="https://www.nwnatural.com">www.nwnatural.com</a>.

Please address correspondence on this matter to me at efiling@nwnatural.com, with copies to the following:

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ncs@nwnatural.com

Sincerely,

**NW NATURAL** 

/s/ Onita R. King

Onita R. King Regulatory Affairs

Attachments: Tariffs

Exhibits A and B

### TABLE OF TARIFF SHEET REVISIONS PROPOSED TO BECOME EFFECTIVE NOVEMBER 1, 2009

PROPOSED REVISION	CANCELS REVISION	SCHEDULE TITLE
Thirteenth Revision of Sheet v	Twelfth Revision of Sheet v	Tariff Index
Ninth Revision of Sheet 1-1	Eighth Revision of Sheet 1-1	Schedule 1 "General Sales Service"
Ninth Revision of Sheet 2-1	Eighth Revision of Sheet 2-1	Schedule 2 "Residential Sales Service"
Eighth Revision of Sheet 3-3	Seventh Revision of Sheet 3-3	Schedule 3 "Basic Firm Sales Service – Non-Residential"
Eighth Revision of Sheet 19-1	Seventh Revision of Sheet 19-1	Schedule 19 "Gas Light Service"
Fifth Revision of Sheet 31-9	Fourth Revision of Sheet 31-9	Schedule 31 "Non-Residential Sales and Transportation Service"
Sixth Revision of Sheet 31-10	Fifth Revision of Sheet 31-10	Schedule 31 "Non-Residential Sales and Transportation Service"
Fifth Revision of Sheet 32-9	Fourth Revision of Sheet 32-9	Schedule 32 "Large Volume Non-Residential Sales and Transportation Service"
Fifth Revision of Sheet 32-10	Sixth Revision of Sheet 32-10	Schedule 32 "Large Volume Non-Residential Sales and Transportation Service"
Sixth Revision of Sheet 33-6	Fifth Revision of Sheet 33-6	Schedule 33 "High-Volume Non-Residential Firm and Interruptible Transportation Service"
Tenth Revision of Sheet 100-1	Ninth Revision of Sheet 100-1	Schedule 100 "Summary of Adjustments"
Original Sheet 100-1.1	N/A	Schedule 100 "Summary of Adjustments (continued)"
Fifth Revision of Sheet 100-2	Fourth Revision of Sheet 100-2	Schedule 100 "Summary of Adjustments (continued)"
First Revision of Sheet 100-3	Original Sheet 100-3	Schedule 100 "Summary of Adjustments (continued)"
Ninth Revision of Sheet 162-1	Eighth Revision of Sheet 162-1	Schedule 162 "Temporary (Technical) Adjustments to Rates"
Eighth Revision of Sheet 162-2	Seventh Revision of Sheet 162-2	Schedule 162 "Temporary (Technical) Adjustments to Rates"
Tenth Revision of Sheet 163-1	Ninth Revision of Sheet 163-1	Schedule 163 "Special Adjustment to Rates Price Elasticity"

PROPOSED REVISION	CANCELS REVISION	SCHEDULE TITLE
Eighth Revision of Sheet 164-1	Seventh Revision of Sheet 164-1	Schedule 164 "Purchased Gas Cost Adjustment to Rates"
First Revision of Sheet 166-1	Original Sheet 166-1	Schedule 166 "Adjustments to Rates (UM 1335)"
First Revision of Sheet 166-2	Original Sheet 166-2	Schedule 166 "Adjustments to Rates (UM 1335)"
Third Revision of Sheet 169-1	Second Revision of Sheet 169-1	Schedule 169 "Special Adjustment to Rates for Storage Inventories"
Original Sheet 170-1	N/A	Schedule 170 "Special Adjustment to Rates for Pension Expense"
Original Sheet 172-1	N/A	Schedule 172 "Special Adjustment to Rates for Intervenor Funding"
Third Revision of Sheet 177-1	Second Revision of Sheet 177-1	Schedule 177 "System Integrity Program Rate Adjustment"
Ninth Revision of Sheet 177-2	Eighth Revision of Sheet 177-2 and Original Sheet 177-2.1	Schedule 177 "System Integrity Program Rate Adjustment (continued)"
Seventh Revision of Sheet 177-3	Sixth Revision of Sheet 177-3, Original Sheet 177-3.1, Fifth Revision of Sheet 177-4 and Original Sheet 177-4.1	Schedule 177 "System Integrity Program Rate Adjustment (continued)"
Original Sheet 187-1	N/A	Schedule 187 "Special Rate Adjustment for Mist Capacity Recall"
Tenth Revision of Sheet 190-1	Ninth Revision of Sheet 190-1	Schedule 190 "Partial Decoupling Mechanism"
Ninth Revision of Sheet 190-2	Eighth Revision of Sheet 190-2	Schedule 190 "Partial Decoupling Mechanism"
Seventh Revision of Sheet 195-4	Sixth Revision of Sheet 195-4	Schedule 195 "Weather Adjusted Rate Mechanism (WARM Program)"
Sixth Revision of Sheet 195-5	Fifth Revision of Sheet 195-5	Schedule 195 "Weather Adjusted Rate Mechanism (WARM Program)"
Original Sheet 305-1	N/A	Schedule 305 "Special Adjustment to Rates for Smart Energy Program Costs"
Sixth Revision of Sheet P-2	Fifth Revision of Sheet P-2	Schedule P "Purchased Gas Cost Adjustments"
Seventh Revision of Sheet P-3	Sixth Revision of Sheet P-3	Schedule P "Purchased Gas Cost Adjustments"
Ninth Revision of Sheet P-5	Eighth Revision of Sheet P-5	Schedule P "Purchased Gas Cost Adjustments"

Thirteenth Revision of Sheet v Cancels Twelfth Revision of Sheet v

### **TARIFF INDEX**

(continued)

	(continued)		
		SHEET	
<b>ADJUSTMENT</b>	SCHEDULES		
	Summary of Adjustments	100-1100-3	
	Monthly Incremental Cost of Gas	150-1	
	Revision of Charges for Coos County Customers	160-1	
	Automatic Adjustment for Utility Income Tax	161-1	
		162-1162-2	
	Temporary (Technical) Adjustments to Rates		
	Special Adjustment to Rates – Price Elasticity	163-1	
	Purchased Gas Cost Adjustments to Rates	164-1	
	Adjustments to Rates (UM 1335)	166-1166-2	
	General Adjustments to Rates	167-1	
	Special Adjustment to Rates for Storage Inventories	169-1	
Schedule 170:	Special Adjustment to Rates for Pension Expense	170-1	(N)
Schedule 172:	Special Adjustment to Rates for Intervenor Funding	172-1	(N)
Schedule 176:	Adjustments to Rates for Costs Relating to		
	Mist Storage Expansion Project	176-1176-2	
Schedule 177:	System Integrity Program Rate Adjustment	177-1177-3	(C)
	Special Annual Interstate Storage and Transportation Credit	185-1	(-)
	Special Annual Core Storage and Pipeline Capacity		
Concadio 100.	Optimization Credit	186-1	<b>(A1</b> )
Schodula 187:	Special Rate Adjustment for Mist Capacity Recall	187-1	(N) (N)
	Industrial Demand Side Management (DSM) program Cost Recovery	188-1	(14)
	Partial Decoupling Mechanism	190-1190-3	
	Weather-Adjusted Rate Mechanism	195-1195-6	4.0
	Special Rate Adjustment (UM 1148)	199-1199-2	(N)
Schedule 305:	Special Adjustment to Rates for Smart Energy Program Costs	305-1	
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	IL CONCESSIONS	000.4	
Schedule 200:	Promotional Concessions Index	200-1	
	General Merchandise Sales Program (Appliance Center)	200-2	
	Equipment Sales Promotions	200-3	
	Cooperative Advertising Program	200-4	
	Showcase Developments	200-5	
	Natural Gas Vehicle Program	200-6	
	Equipment Financing Program	200-7	
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PUBLIC PUPR	POSES SCHEDULES		
	Public Purposes Funding Surcharge	301-1301-2	
	Oregon Low-Income Gas Assistance (OLGA)	310-1310-2	
	Oregon Low-Income Energy Efficiency (OLIEE) Programs	320-1320-8	
	Energy Efficiency Services and Programs – Residential and	JZU-1JZU-0	
Scriedule 350:	0, ,	250.4 250.0	
Cabadula 400	Commercial	350-1350-2	
Scriedule 400:	Smart Energy Program (Pilot)	400-1400-2	

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Ninth Revision of Sheet 1-1 Cancels Eighth Revision of Sheet 1-1

### RATE SCHEDULE 1 GENERAL SALES SERVICE

### **AVAILABLE:**

To all Residential and Commercial Customer classes in all territory served by the Company under the Tariff of which this Rate Schedule is a part, except that service under this Rate Schedule is not available for Standby Service to Commercial Customers. Seasonal or temporary Discontinuance of Service is allowed subject to Special Provision 1 of this Rate Schedule. The installation of Distribution Facilities, when required before service can be provided to equipment served under this Schedule, is subject to the provisions of **SCHEDULE X**.

(C)

### **SERVICE DESCRIPTION:**

Service under this Rate Schedule is Firm Sales Service to gas-fired equipment including but not limited to one or any multiple or combination of the following:

- (a) Non-ducted space heating equipment, including but not limited to fireplace inserts, free standing gas stoves, and room heaters;
- (b) Standby space heating equipment used in residential applications, including but not limited to Natural Gas back-up to electric heat pumps,
- (c) Water heating equipment used to serve single-family residential swimming pools, spas, and hot tubs:
- (c) Other equipment including, but not limited to, log lighter, gas log, gas barbecue, tiki torch, Bunsen burner, Domestic cooking equipment, hobby kilns, refrigeration or Domestic clothes drying;
- (d) Equipment installed for use in detached garages, shops, or outbuildings.

MONTHLY RATE: Effective: November 1, 2009

(T)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in **SCHEDULE 160**.

	Base Rate	Base Rate Adjustment	Pipeline Capacity	Commodity	Temporary Adjustment	Total Billing		
Customer Charge:	\$5.00					\$5.00		
Delivery Charge (per therm):								
Residential	\$0.47719	\$0.01943	\$0.12502	\$0.59044	\$(0.00486)	\$1.20722		
Commercial	\$0.46066	\$0.01431	\$0.12502	\$0.59044	\$(0.03538)	\$1.15505		

(R) (R)

Minimum Monthly Bill:

Customer Charge plus charges under **SCHEDULE C** and **SCHEDULE 15** (if applicable).

(continue to Sheet 1-2)

Issued August 31, 2009 NWN Advice No. OPUC 09-12

P.U.C. Or. 24

Ninth Revision of Sheet 2-1 Cancels Eighth Revision of Sheet 2-1

### RATE SCHEDULE 2 RESIDENTIAL SALES SERVICE

### **AVAILABLE:**

To Residential Customers in all territory served by the Company under the Tariff of which this Rate Schedule is a part. Seasonal or temporary Discontinuance of Service is allowed subject to Special Provision 1 of this Rate Schedule. The installation of Distribution Facilities, when required before service can be provided to equipment served under this Rate Schedule, is subject to the provisions of **SCHEDULE X**.

### **SERVICE DESCRIPTION:**

Service under this Rate Schedule is Firm Sales Service to gas-fired equipment used in Residential dwellings that provide complete family living facilities in which the occupant normally cooks, eats, sleeps, and carries on the household operations incident to Domestic life, for at least one of the following purposes:

- (a) Operation of ducted forced air Natural Gas space heating equipment that is the primary source for space heating requirements, and/or;
- (b) Operation of fully automatic water heating equipment for primary water heating requirements.

Service under this Rate Schedule includes the use of gas for equipment installed in addition to (a) or (b).

**MONTHLY RATE:** Effective: November 1, 2009

ective: November 1, 2009

The rates shown in this Rate Schedule may not always reflect actual billing rates. See Schedule 100 for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in **Schedule 160**.

	Base Rate	Base Rate Adjustment	Pipeline Capacity	Commodity	Temporary Adjustment	Total Billing
Customer Charge:	\$6.00					\$6.00
Volumetric Charge (per therm):						
	\$0.41526	\$0.01437	\$0.12502	\$0.59044	\$(0.00462)	\$1.14047

Minimum Monthly Bill: Customer Charge plus charges under SCHEDULE C or SCHEDULE 15 (if applicable)

(continue to Sheet 2-2)

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(R)

P.U.C. Or. 24

Eighth Revision of Sheet 3-3 Cancels Seventh Revision of Sheet 3-3

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(R) (R)

### **RATE SCHEDULE 3**

### BASIC FIRM SALES SERVICE - NON-RESIDENTIAL (continued)

**MONTHLY RATE**: Effective: November 1, 2009

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in **SCHEDULE 160**.

FIRM SALES SERVICE	Billing Rates [1]					
	\$8.00					
Volumetric Charges (per therm):	Base Rate	Base Rate Adjustment	Pipeline Capacity	Commodity Component [2]	Temporary Adjustment	
Commercial (3 CSF):	\$0.33622	\$0.01121	\$0.12502	\$0.59044	\$(0.03524)	\$1.02765
Industrial (3 ISF):	\$0.30693	\$0.01004	\$0.12502	\$0.59044	\$(0.03886)	\$0.99357
Standby Charge (per the	\$10.00					

- [1] SCHEDULE C and SCHEDULE 15 Charges shall apply, if applicable.
- [2] The Commodity Component will be either Annual Sales WACOG or Monthly Incremental Cost of Gas.
- [3] Applies to Standby Sales Service only.

Minimum Monthly Bill. The Minimum Monthly Bill shall be any SCHEDULE C and SCHEDULE 15 Charges, plus:

- (a) Firm Sales Service. Customer Charge.
- (b) Firm Sales Standby Service. Customer Charge, plus Standby Service Charge.

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Eighth Revision of Sheet 19-1 Cancels Seventh Revision Sheet 19-1

### **FROZEN**

### **RATE SCHEDULE 19** GAS LIGHT SERVICE

### AVAILABLE:

In all territory served by the Company under the Tariff of which this Rate Schedule is a part for use exclusively in gas lighting devices to which Distribution Facilities were committed or installed prior to August 10, 1973.

### SERVICE DESCRIPTION:

Firm unmetered gas service delivered on a continuous basis for use in gas lamps, not exceeding a rated capacity of 2.5 cubic feet per hour per Mantle or Mantle equivalent; and, only to approved installations using gas for mood or atmosphere lighting, for porch, patio or walkway lamps and for roadway or street lighting. Gas lamps installed downstream of the meter will be treated as additional equipment under the Rate Schedule appropriate for the existing service.

### **BILLING UNIT:**

Rates for gas service under this Rate Schedule are expressed in units of the standard Mantle with a maximum rated capacity of 2.5 cubic feet per hour.

**MONTHLY RATE**: Effective: November 1, 2009

The rates shown in this Rate Schedule may not always reflect actual billing rates. See SCHEDULE 100 for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments.

	Base Rate	Base Rate Adjustment s	Temporary Adjustment s	Billing Rate
One mantle	\$18.39	\$0.07	\$(0.72)	\$17.74
All additional mantles	\$17.78	\$0.07	\$(0.72)	\$17.13

Minimum Monthly Bill: Amount based on number of mantles installed

### **GENERAL TERMS:**

Service under this Rate Schedule is governed by the terms of this Rate Schedule, the General Rules and Regulations contained in this Tariff, and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009 (T)

P.U.C. Or. 24

Fifth Revision of Sheet 31-9 Cancels Fourth Revision of Sheet 31-9

### **RATE SCHEDULE 31** NON-RESIDENTIAL SALES AND TRANSPORTATION SERVICE (continued)

### **MONTHLY RATES FOR COMMERCIAL CUSTOMER CLASS:**

Effective: November 1, 2009

(T)

The rates shown in this Rate Schedule may not always reflect actual billing rates. SEE SCHEDULE 100 for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in SCHEDULE 160. The rates for distributed generation customers are subject to SCHEDULE 31-CHP.

FIRM SALES SERVICE CHARGES (31 CSF) [1]:							
Customer Charge (per month):					\$325.00		
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Commodity Component [2]	Total Temporary Adjustments [3]			
Block 1: 1 <sup>st</sup> 2,000 therms	\$0.17708	\$0.00898	\$0.59044	\$(0.03514)	\$0.74136		
Block 2: All additional therms	\$0.16142	\$0.00853	\$0.59044	\$(0.03512)	\$0.72527		
<b>Pipeline Capacity Charge Options</b>	(select one):						
Firm Pipeline Capacity Charge - Volu	ımetric option (pe	r therm):			\$0.12502		
Firm Pipeline Capacity Charge - Pea	k Demand option	(per therm of MD	DV):		\$1.87		
INTERRUPTIBLE SALES SERVICE Customer Charge (per month):	CHARGES (31 C	(SI) [1]:			\$325.00		
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Commodity Component: [2]	Total Temporary Adjustments [3]			
Block 1: 1 <sup>st</sup> 2,000 therms	\$0.17874	\$0.00737	\$0.59044	\$(0.02958)	\$0.74697		
Block 2: All additional therms	\$0.16293	\$0.00706	\$0.59044	\$(0.02957)	\$0.73086		
Plus: Interruptible Pipeline Capacity	Charge - Volume	tric (per therm):			\$0.01486		
FIRM TRANSPORTATION SERVICE	CHARGES (31	CTF):					
Customer Charge (per month):							
Transportation Charge (per month):							
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment		Total Temporary Adjustments [4]			
Block 1: 1 <sup>st</sup> 2,000 therms	\$0.17771	\$0.00820		\$0.00237	\$0.18828		
Block 2: All additional therms	\$0.16200	\$0.00782		\$0.00239	\$0.17221		

The Monthly Bill shall equal the sum of the Customer Charge, plus the Volumetric Charges, plus the Pipeline Capacity Charge selected by the Customer, plus any other charges that may apply from Schedule C or Schedule 15.

The stated rate is the Company's Annual Sales WACOG. However, the Commodity Component to be billed will be dependent on

(continue to Sheet 31-10)

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Customer's Service Type Selection and may instead be Winter Sales WACOG or Monthly Incremental Cost of Gas.

Where applicable, as set forth in this rate schedule, the Account 191 portion of the Temporary Adjustments as set forth in Schedule 162

Where applicable, as set forth in this rate schedule, the Account 191 portion of the Sales Service Temporary Adjustments as set forth in Schedule 162 may also apply.

P.U.C. Or. 24

Sixth Revision of Sheet 31-10 Cancels Fifth Revision of Sheet 31-10

# RATE SCHEDULE 31 NON-RESIDENTIAL SALES AND TRANSPORTATION SERVICE (continued)

### **MONTHLY RATES FOR INDUSTRIAL CUSTOMER CLASS:**

Effective: November 1, 2009

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(I)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in **SCHEDULE 160**. The rates for distributed generation customers are subject to **SCHEDULE 31-CHP**.

FIRM SALES SERVICE CHARGES (31 ISF) [1]:							
Customer Charge (per month):							
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Commodity Component [2]	Total Temporary Adjustments [3]			
Block 1: 1 <sup>st</sup> 2,000 therms	\$0.16358	\$0.00513	\$0.59044	\$(0.03880)	\$0.72035		
Block 2: All additional therms	\$0.14781	\$0.00462	\$0.59044	\$(0.03877)	\$0.70410		
Pipeline Capacity Charge Options	(select one):						
Firm Pipeline Capacity Charge - Vol	umetric option (pe	r therm):			\$0.12502		
Firm Pipeline Capacity Charge - Pea	ak Demand option	(per therm of MD	DV):		\$1.87		
INTERRUPTIBLE SALES SERVICE	CHARGES (31 IS	SI) [1]:					
Customer Charge (per month):							
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Commodity Component [2]	Total Temporary Adjustments [3]			
Block 1: 1 <sup>st</sup> 2,000 therms	\$0.25433	\$0.13054	\$0.59044	\$(0.03908)	\$0.93623		
Block 2: All additional therms	\$0.22983	\$0.11797	\$0.59044	\$(0.03851)	\$0.89973		
Plus: Interruptible Pipeline Capacity	Charge - Volume	tric (per therm):			\$0.01486		
FIRM TRANSPORTATION SERVICE	E CHARGES (31	ITF):					
Customer Charge (per month):							
Transportation Charge (per month):							
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment		Total Temporary Adjustments [4]			
Block 1: 1st 2,000 therms	\$0.16317	\$0.00446		\$(0.00017)	\$0.16746		
Block 2: All additional therms	\$0.14744	\$0.00403		\$(0.00015)	\$0.15132		

<sup>[1]</sup> The Monthly Bill shall equal the sum of the Customer Charge, plus the Volumetric Charges, plus the Pipeline Capacity Charge selected by the Customer, plus any other charges that may apply from **SCHEDULE C** and **SCHEDULE 15**.

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<sup>[2]</sup> The stated rate is the Company's Annual Sales WACOG. However, the Commodity Component to be billed will be dependent on Customer's Service Type Selection and may instead be Winter Sales WACOG, or Monthly Incremental Cost of Gas.

<sup>[3]</sup> Where applicable, as set forth in this rate schedule, the Account 191 portion of the Temporary Adjustments as set forth in **SCHEDULE 162** may not apply.

<sup>[4]</sup> Where applicable, as set forth in this rate schedule, the Account 191 portion of the Sales Service Temporary Adjustments as set forth in **SCHEDULE 162** may also apply.

Fifth Revision of Sheet 32-9 Cancels Fourth Revision of Sheet 32-9

### RATE SCHEDULE 32 LARGE VOLUME NON-RESIDENTIAL SALES AND TRANSPORTATION SERVICE (continued)

MONTHLY RATES: Effective: November 1, 2009 (T)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in **SCHEDULE 160**. The rates for distributed generation customers are subject to **SCHEDULE 32-CHP**.

FIRM SALES SERVICE CHARG	ES [1]:				
Customer Charge (per month, all	service types):				\$675.00
	Base Rate Base Rate Commodity Total Temporary Adjustment Component [2] Adjustments [3]				
32 CSF Volumetric Charges (	(per therm):				
Block 1: 1 <sup>st</sup> 10,000 therms	\$0.09710	\$0.00276	\$0.59044	\$(0.03760)	\$0.65270
Block 2: Next 20,000 therms	\$0.08252	\$0.00235	\$0.59044	\$(0.03758)	\$0.63773
Block 3: Next 20,000 therms	\$0.05826	\$0.00165	\$0.59044	\$(0.03755)	\$0.61280
Block 4: Next 100,000 therms	\$0.03399	\$0.00096	\$0.59044	\$(0.03751)	\$0.58788
Block 5: Next 600,000 therms	\$0.01943	\$0.00055	\$0.59044	\$(0.03750)	\$0.57292
Block 6: All additional therms	\$0.00972	\$0.00028	\$0.59044	\$(0.03748)	\$0.56296
32 ISF Volumetric Charges (p	per therm):				
Block 1: 1 <sup>st</sup> 10,000 therms	\$0.09775	\$ 0.00297	\$ 0.59044	\$(0.03870)	\$0.65246
Block 2: Next 20,000 therms	\$0.08308	\$ 0.00253	\$ 0.59044	\$(0.03868)	\$0.63737
Block 3: Next 20,000 therms	\$0.05866	\$ 0.00178	\$ 0.59044	\$(0.03864)	\$0.61224
Block 4: Next 100,000 therms	\$0.03421	\$ 0.00105	\$ 0.59044	\$(0.03861)	\$0.58709
Block 5: Next 600,000 therms	\$0.01956	\$ 0.00059	\$ 0.59044	\$(0.03859)	\$0.57200
Block 6: All additional therms	\$0.00980	\$ 0.00030	\$ 0.59044	\$(0.03857)	\$0.56197
Firm Service Distribution Capacit	y Charge (per the	erm of MDDV pe	r month):		\$0.15748
Firm Sales Service Storage Char	ge (per therm of	MDDV per mont	h):		\$0.20415
Pipeline Capacity Charge Option	ons (select one)	:			
Firm Pipeline Capacity Charge - \	Volumetric optior	n (per therm):			\$0.12502
Firm Pipeline Capacity Charge - I	Peak Demand or	otion (per therm o	of MDDV per month	):	\$1.87
INTERRUPTIBLE SALES SERV	ICE CHARGES	[4]:			
Customer Charge (per month):					\$675.00
32 ISI Volumetric Charges (po	er therm):				
Block 1: 1 <sup>st</sup> 10,000 therms	\$0.09752	\$0.00263	\$0.59044	\$(0.03320)	\$0.65739
Block 2: Next 20,000 therms	\$0.08289	\$0.00223	\$0.59044	\$(0.03318)	\$0.64238
Block 3: Next 20,000 therms	\$0.05852	\$0.00158	\$0.59044	\$(0.03315)	\$0.61739
Block 4: Next 100,000 therms	\$0.03414	\$0.00093	\$0.59044	\$(0.03312)	\$0.59239
Block 5: Next 600,000 therms	\$0.01951	\$0.00052	\$0.59044	\$(0.03310)	\$0.57737
Block 6: All additional therms	\$0.00977	\$0.00026	\$0.59044	\$(0.03309)	\$0.56738
Interruptible Pipeline Capacity Ch	narge (per therm)	):			\$0.01486

The Monthly Bill shall equal the sum of the Customer Charge, plus the Volumetric Charges, plus the Pipeline Capacity Charge selected by the Customer, plus any other charges that may apply from Schedule C or Schedule 15.
 The stated rate is the Company's Annual Sales WACOG. However, the Commodity Component to be billed will be dependent on

(continue to Sheet 32-10)

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<sup>[2]</sup> The stated rate is the Company's Annual Sales WACOG. However, the Commodity Component to be billed will be dependent on Customer's Service Type Selection and may instead be Winter Sales WACOG or Monthly Incremental Cost of Gas.

<sup>[3]</sup> Where applicable, as set forth in this rate schedule, the Account 191 portion of the Temporary Adjustments as set forth in Schedule 162 may not apply.

<sup>[4]</sup> Where applicable, as set forth in this rate schedule, the Account 191 portion of the Sales Service Temporary Adjustments as set forth in Schedule 162 may also apply.

P.U.C. Or. 24

Seventh Revision of Sheet 32-10 Cancels Sixth Revision of Sheet 32-10

# RATE SCHEDULE 32 LARGE VOLUME NON-RESIDENTIAL SALES AND TRANSPORTATION SERVICE (continued)

MONTHLY RATES: Effective: November 1, 2009 (T)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in Schedule 160. The rates for distributed generation customers are subject to **SCHEDULE 32-CHP**.

FIRM TRANSPORTATION SERV	Billing Rates			
Customer Charge (per month):	\$675.00			
Transportation Charge (per month	\$250.00			
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Total Temporary Adjustments [2]	
Block 1: 1st 10,000 therms Block 2: Next 20,000 therms Block 3: Next 20,000 therms Block 4: Next 100,000 therms Block 5: Next 600,000 therms Block 6: All additional therms	\$0.09708 \$0.08250 \$0.05825 \$0.03399 \$0.01942 \$0.00973	\$0.00224 \$0.00190 \$0.00134 \$0.00078 \$0.00045 \$0.00023	\$(0.00007) \$(0.00006) \$(0.00003) \$(0.00001) \$0.00001	\$0.09925 \$0.08434 \$0.05956 \$0.03476 \$0.01988 \$0.00998
Firm Service Distribution Capacity  INTERRUPTIBLE TRANSPORTA		·	,	\$0.15748
Customer Charge (per month):				\$675.00
Transportation Charge (per month	):			\$250.00
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Temporary Adjustments [2]	
Block 1: 1st 10,000 therms Block 2: Next 20,000 therms Block 3: Next 20,000 therms Block 4: Next 100,000 therms Block 5: Next 600,000 therms Block 6: All additional therms	\$0.09744 \$0.08282 \$0.05847 \$0.03411 \$0.01950 \$0.00977	\$0.00220 \$0.00187 \$0.00132 \$0.00077 \$0.00044 \$0.00022	\$(0.00007) \$(0.00006) \$(0.00003) \$(0.00001) \$0.00001	\$0.09957 \$0.08463 \$0.05976 \$0.03487 \$0.01995 \$0.01001

<sup>[1]</sup> For Firm Transportation Service, the Monthly Bill shall equal the sum of the Customer Charge, plus Transportation Charge, plus the Volumetric Charges, plus the Distribution Capacity Charge, plus any other charges that may apply from Schedule C or Schedule 15.

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Issued by: NORTHWEST NATURAL GAS COMPANY

<sup>[2]</sup> Where applicable, the Account 191 Adjustments shall apply.

<sup>[3]</sup> For Interruptible Transportation Service, the Monthly Bill shall equal the sum of the Customer Charge, plus Transportation Charge, plus the Volumetric Charges, plus any other charges that may apply from Schedule C or Schedule 15.

<sup>[4]</sup> Where applicable, as set forth in this rate schedule, the Account 191 portion of the Sales Service Temporary Adjustments as set forth in Schedule 162 may also apply.

P.U.C. Or. 24

Sixth Revision of Sheet 33-6 Cancels Fifth Revision of Sheet 33-6

# RATE SCHEDULE 33 HIGH VOLUME NON-RESIDENTIAL FIRM AND INTERRUPTIBLE TRANSPORTATION SERVICE (continued)

MONTHLY RATE: Effective: November 1, 2009 (T)

The rates shown below may not always reflect actual billing rates. See **Schedule 100** for a list of applicable adjustments. Rates are subject to changes for purchased gas costs and technical rate adjustments. The rates for Coos County customers are subject to the additional adjustment set forth in **SCHEDULE 160**.

FIRM TRANSPORTATION SERVICE CHARGES (33 TF)								
	Billing Rates							
Customer Charge:				\$38,000.00				
Transportation Charge:				\$250.00				
Volumetric Charge:	Base Rate	Base Rate Adjustments	Total Temporary Adjustment [1]					
Per therm, all therms:	\$0.00526	\$0.00013	\$(0.00001)	\$0.00538				
Firm Service Distribution Capac	Firm Service Distribution Capacity Charge: Per therm of MDDV per month \$0.15748							
Minimum Monthly Rill: Custo	mor Charge, plus Tra	ancoertation Chara	o plue Firm Service Die	tribution Capacity				

**Minimum Monthly Bill:** Customer Charge, plus Transportation Charge, plus Firm Service Distribution Capacity Charge, plus any other charges that may apply from **Schedule C** and **Schedule 15**.

INTERRUPTIBLE TRANSPORTATION SERVICE CHARGES (33 TI)					
			Billing Rates		
			\$38,000.00		
			\$250.00		
Base Rate	Base Rate Adjustments	Total Temporary Adjustment [1]			
\$0.00526	\$0.00013	\$(0.00001)	\$0.00538		
	Base Rate	Base Rate Base Rate Adjustments	Base Rate Adjustments Total Temporary Adjustment [1]		

**Minimum Monthly Bill:** Customer Charge, plus Transportation Charge, plus any other charges that may apply from **Schedule C** and **Schedule 15**.

[1] Where applicable, as set forth in this rate schedule, the Account 191 portion of the Temporary Adjustments as set forth in **SCHEDULE 162** shall apply.

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Tenth Revision of Sheet 100-1 Cancels Ninth Revision of Sheet 100-1

### SCHEDULE 100 SUMMARY OF ADJUSTMENTS

### **PURPOSE**:

The purpose of this Schedule is to list and summarize the adjustment Schedules applicable to each of the Company's Rate Schedules.

SCHEDULE	Α	160	161	162	163	164	166	167	169	170	172	176	177
1R	ADD	ADD	ADD	INC	INC	INC	INC	INC	INC	INC	INC	INC	INC
1C	ADD	ADD	ADD	INC	INC	INC	INC	INC	INC	INC		INC	INC
2	ADD	ADD	ADD	INC	INC	INC	INC	INC	INC	INC	INC	INC	INC
3 (CSF)	ADD	ADD	ADD	INC	INC	INC	INC	INC	INC	INC		INC	INC
3 (ISF)	ADD	ADD	ADD	INC		INC	INC	INC	INC	INC	INC	INC	INC
15	ADD						INC	INC		INC			
19	ADD		ADD	ADD		INC	INC	INC	INC				INC
31 (CSF)	ADD	ADD	ADD	INC	INC	INC	INC	INC	INC	INC		INC	INC
31 (CSI)	ADD	ADD	ADD	INC	INC	INC	INC	INC	INC	INC		INC	INC
31 (CTF)	ADD		ADD	INC	INC		INC	INC		INC		INC	INC
31 (ISF)	ADD	ADD	ADD	INC		INC	INC	INC	INC	INC	INC	INC	INC
31 (ISI)	ADD	ADD	ADD	INC		INC	INC	INC	INC	INC	INC	INC	INC
31 (ITF)	ADD		ADD	INC			INC	INC		INC	INC	INC	INC
32 (CSF/ISF)	ADD	ADD	ADD	INC		INC	INC	INC	INC	INC	INC		INC
32 (CSI/ISI)	ADD	ADD	ADD	INC		INC	INC	INC	INC	INC	INC		INC
32 (CTF/ITF)	ADD		ADD	INC			INC	INC		INC	INC		INC
32 (CTI/ITI)	ADD		ADD	INC			INC	INC		INC	INC		INC
00 (07)(17)	400		A D D	INIO			INIO	INIO		INIO		INIO	INIO
33 (CTI/ITI)	ADD		ADD	INC			INC	INC		INC		INC	INC
33 (CTF/ITF)	ADD		ADD	INC			INC	INC		INC		INC	INC
	455							11.10		1110			
60	ADD							INC		INC			

Table Code Key:

ADD This adjustment is added to the billing rates at the time the bill is issued.

INC This adjustment is included in the billing rates shown on the Rate Schedule.

(continue to Sheet 100-1.1)

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(C)

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### SCHEDULE 100 SUMMARY OF ADJUSTMENTS (continued)

**PURPOSE**: (continued)

SCHEDULE	185	186	187	188	190	195	199	301	305
1R	ADD	ADD	INC		INC		INC	ADD	INC
1C	ADD	ADD	INC		INC		INC	ADD	INC
2	ADD	ADD	INC		INC	AD D	INC	ADD	INC
3 (CSF)	ADD	ADD	INC		INC	AD D	INC	ADD	INC
3 (ISF)	ADD	ADD		INC			INC		
15									
19							INC		INC
31 (CSF)	ADD	ADD	INC		INC		INC	ADD	INC
31 (CSI)		ADD	INC		INC		INC	ADD	INC
31 (CTF)					INC		INC		
31 (ISF)	ADD	ADD	INC	INC			INC		
31 (ISI)		ADD	INC	INC			INC		
31 (ITF)							INC		
32 (CSF/ISF)	ADD	ADD	INC	INC			INC		
32 (CSI/ISI)		ADD	INC	INC			INC		
32 (CTF/ITF)							INC		
32 (CTI/ITI)							INC		
33 (CTI/ITI)							INC		
33 (CTF/ITF)							INC		
60									

(M)(N)

(D)

(M)

Table Code Key:

ADD

This adjustment is added to the billing rates at the time the bill is issued.

**INC** This adjustment is included in the billing rates shown on the Rate Schedule.

(continue to Sheet 100-2)

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P.U.C. Or. 24

Fifth Revision of Sheet 100-2 Cancels Fourth Revision of Sheet 100-2

### SCHEDULE 100 SUMMARY OF ADJUSTMENTS (continued)

The following is a brief description of the applicable Schedules:

### Schedule A "Billing for City and County Exactions."

This adjustment will be reflected directly on Customer bills.

#### Schedule 160 "Revision of Charges for Coos County Customers."

This adjustment is added to the Delivery Charges for applicable Coos County Customers.

#### Schedule 161 "Automatic Adjustment for Utility Income Tax"

These are one-time annual lump sum adjustments to bills that do not affect Rate Schedule billing rates.

### Schedule 162 "Temporary (Technical) Adjustments to Rates."

These are Temporary Adjustments that are included in the Delivery Charge reflected on Customer bills.

### Schedule 163 "Special Adjustment to Rates Price Elasticity"

These are Base Adjustments that are included in the Delivery or Volumetric Charges reflected on Customer bills.

### Schedule 164 "Purchased Gas Cost Adjustments to Rates."

These are Pipeline Capacity and Commodity charges

### Schedule 166 "Adjustments to Rates (UM 1335)."

These are Base Adjustments associated with a change in depreciation rates that are included in Delivery or Volumetric Charges reflected on Customer bills.

### Schedule 167 "General Adjustments to Rates."

These are Base Adjustments that are included in all applicable charges reflected on Customer bills

### Schedule 169 "Special Adjustment to Rates for Storage Inventories."

These are Temporary Adjustments that are included in the Delivery or Volumetric Charges reflected on Customer bills.

Schedule 170 "Special Adjustment to Rates for Pension Expense."	(N)
These are Temporary Adjustments that are included in the Delivery or Volumetric Charges reflected on	(N)
Customer bills.	(N)
Schedule 172 "Special Adjustment to Rates for Intervenor Funding."	(N)
These are Temporary Adjustments that are included in the Delivery or Volumetric Charges reflected on	(N)
Customer bills.	(N)

### Schedule 176 "Adjustments to Rates for Costs Relating to Mist Storage Expansion."

These are Base Adjustments that are included in the Delivery or Volumetric Charges reflected on Customer bills.

### Schedule 177 "System Integrity Program Rate Adjustment."

These are Base Adjustments that are included in the Delivery or Volumetric Charges reflected on Customer bills.

### Schedule 185 "Special Annual Interstate Storage and Transportation Credit."

These are one-time annual lump sum adjustments to bills that do not affect Rate Schedule billing rates.

(continue to Sheet 100-3)

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P.U.C. Or. 24

First Revision of Sheet 100-3 Cancels Original Sheet 100-3

### SCHEDULE 100 SUMMARY OF ADJUSTMENTS (continued)

Schedule 186 "Specia	I Annual Core	Pineline Canacity	Ontimization	Credit "

These are one-time annual lump sum adjustments to bills that do not affect Rate Schedule billing rates.

<u>Schedule 187 "Special Adjustment for Storage Recall."</u> These are Base Adjustments that are included in the Delivery or Volumetric Charges reflected on Customer bills.	(N) (N) (N)
Schedule 188 "Industrial Demand Side Management (DSM) program Cost Recovery."  These are Temporary Adjustments that are included in the Delivery or Volumetric Charges reflected	(N) (N)
on Customer bills.	(N)

### Schedule 190 "Price Elasticity and Partial Decoupling Mechanism."

These are Base Adjustments that are included in the Delivery or Volumetric Charges reflected on Customer bills.

### Schedule 195 "Weather Adjusted Rate Mechanism (WARM)."

These are winter heating season adjustments that are included in the Delivery Charges reflected on Customer bills.

### Schedule 199 "Special Rate Adjustment (UM 1148/UP205)."

These are Base Adjustments that are included in the Delivery or Volumetric Charges reflected on Customer bills.

### Schedule 301 "Public Purposes Funding Surcharge."

These are monthly adjustments to bills that do not affect Rate Schedule billing rates.

Schedule 305 "Special Adjustment for Smart Energy Program Costs."	(N) (N)
These are Temporary Adjustments that are included in the Delivery or Volumetric Charges reflected	(N)
on Customer bills.	

Issued August 31, 2009 NWN Advice No. OPUC 09-12

P.U.C. Or. 24

Ninth Revision of Sheet 162-1 Cancels Eighth Revision of Sheet 162-1

Effective: November 1, 2009

### SCHEDULE 162 TEMPORARY (TECHNICAL) ADJUSTMENTS TO RATES

### PURPOSE:

To identify adjustments to rates in the Rate Schedules listed below that relate to the amortization of balances in all of the Company's conventional deferred revenue and gas cost accounts, Accounts 186 and 191, respectively.

### **APPLICABLE:**

To the following Rate Schedules of this Tariff:

Schedule 1 Schedule 3 Schedule 31 Schedule 33 Schedule 2 Schedule 19 Schedule 32 Schedule 54

### **APPLICATION TO RATE SCHEDULES:**

The Total Adjustment amount shown below is included in the Temporary Adjustments reflected in the above-listed Rate Schedules. NO ADDITIONAL ADJUSTMENT TO RATES IS REQUIRED.

Schedule	Block	Account 191 Commodity Adjustment	Account 191 Pipeline Capacity Adjustment	Account 186 Net Adjustments	Total Temporary Adjustment
1R		\$(0.03237)	\$(0.00622)	\$0.03373	\$(0.00486)
1C		\$(0.03237)	\$(0.00622)	\$0.00321	\$(0.03538)
2		\$(0.03237)	\$(0.00622)	\$0.03397	\$(0.00462)
3 (CSF)		\$(0.03237)	\$(0.00622)	\$0.00335	\$(0.03524)
3 (ISF)		\$(0.03237)	\$(0.00622)	\$(0.00027)	\$(0.03886)
19		(0.62)	(0.12)	0.02000	(0.72)
31 (CSF)	Block 1	\$(0.03237)	\$(0.00622)	\$0.00345	\$(0.03514)
	Block 2	\$(0.03237)	\$(0.00622)	\$0.00347	\$(0.03512)
31(CTF)	Block 1	N/A	N/A	\$0.00237	\$0.00237
	Block 2	N/A	N/A	\$0.00239	\$0.00239
31 (CSI)	Block 1	\$(0.03237)	\$(0.00074)	\$0.00353	\$(0.02958)
	Block 2	\$(0.03237)	\$(0.00074)	\$0.00354	\$(0.02957)
31 (ISF)	Block 1	\$(0.03237)	\$(0.00622)	\$(0.00021)	\$(0.03880)
	Block 2	\$(0.03237)	\$(0.00622)	\$(0.00018)	\$(0.03877)
31 (ITF)	Block 1	N/A	N/A	\$(0.00017)	\$(0.00017)
	Block 2	N/A	N/A	\$(0.00015)	\$(0.00015)
31 (ISI)	Block 1	\$(0.03237)	\$(0.00074)	\$(0.00597)	\$(0.03908)
	Block 2	\$(0.03237)	\$(0.00074)	\$(0.00540)	\$(0.03851)

(continue to Sheet 162-2)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

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P.U.C. Or. 24

Eighth Revision of Sheet 162-2 Cancels Seventh Revision of Sheet 162-2

Effective: November 1, 2009

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# SCHEDULE 162 TEMPORARY (TECHNICAL) ADJUSTMENTS TO RATES (continued)

### **APPLICATION TO RATE SCHEDULES** (continued):

Schedule	Block	Account 191 Commodity Adjustment	Account 191 Pipeline Capacity Adjustment	Account 186 Net Adjustments	Total Temporary Adjustment
32 (CSF)	Block 1	\$(0.03237)	\$(0.00622)	\$0.00099	\$(0.03760)
	Block 2	\$(0.03237)	\$(0.00622)	\$0.00101	\$(0.03758)
	Block 3	\$(0.03237)	\$(0.00622)	\$0.00104	\$(0.03755)
	Block 4	\$(0.03237)	\$(0.00622)	\$0.00108	\$(0.03751)
	Block 5	\$(0.03237)	\$(0.00622)	\$0.00109	\$(0.03750)
	Block 6	\$(0.03237)	\$(0.00622)	\$0.00111	\$(0.03748)
32 (ISF)	Block 1	\$(0.03237)	\$(0.00622)	\$(0.00011)	\$(0.03870)
` ,	Block 2	\$(0.03237)	\$(0.00622)	\$(0.00009)	\$(0.03868)
	Block 3	\$(0.03237)	\$(0.00622)	\$(0.00005)	\$(0.03864)
	Block 4	\$(0.03237)	\$(0.00622)	\$(0.00002)	\$(0.03861)
	Block 5	\$(0.03237)	\$(0.00622)	\$0.00000	\$(0.03859)
	Block 6	\$(0.03237)	\$(0.00622)	\$0.00002	\$(0.03857)
32 (TF)	Block 1	N/A	N/A	\$(0.00007)	\$(0.00007)
` ,	Block 2	N/A	N/A	\$(0.00006)	\$(0.00006)
	Block 3	N/A	N/A	\$(0.00003)	\$(0.00003)
	Block 4	N/A	N/A	\$(0.00001)	\$(0.00001)
	Block 5	N/A	N/A	\$0.00001	\$0.00001
	Block 6	N/A	N/A	\$0.00002	\$0.00002
32 (SI)	Block 1	\$(0.03237)	\$(0.00074)	\$(0.00009)	\$(0.03320)
` '	Block 2	\$(0.03237)	\$(0.00074)	\$(0.00007)	\$(0.03318)
	Block 3	\$(0.03237)	\$(0.00074)	\$(0.00004)	\$(0.03315)
	Block 4	\$(0.03237)	\$(0.00074)	\$(0.00001)	\$(0.03312)
	Block 5	\$(0.03237)	\$(0.00074)	\$0.00001	\$(0.03310)
	Block 6	\$(0.03237)	\$(0.00074)	\$0.00002	\$(0.03309)
32 (TI)	Block 1	N/A	N/A	\$(0.00007)	\$(0.00007)
` '	Block 2	N/A	N/A	\$(0.00006)	\$(0.00006)
	Block 3	N/A	N/A	\$(0.00003)	\$(0.00003)
	Block 4	N/A	N/A	\$(0.00001)	\$(0.00001)
	Block 5	N/A	N/A	\$0.00001	\$0.00001
	Block 6	N/A	N/A	\$0.00002	\$0.00002
33 (TI)		N/A	N/A	\$(0.00001)	\$(0.00001)
33 (TF)		N/A	N/A	\$(0.00001)	\$(0.00001)

### **GENERAL TERMS**:

This Schedule is governed by the terms of this Schedule, the General Rules and Regulations contained in this Tariff and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

Issued by: NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 24

Tenth Revision of Sheet 163-1 Cancels Ninth Revision of Sheet 163-1

### SCHEDULE 163

### SPECIAL ADJUSTMENT TO RATES PRICE ELASTICITY

### **PURPOSE**:

To identify permanent adjustments to rates in the schedules listed below in accordance with a Stipulation and Agreement adopted by the Public Utility Commission of Oregon in Docket UG 143.

### **APPLICABLE:**

To Residential and Commercial Customers served on the following schedules of this Tariff:

Residential	Commercial
Schedule 1	Schedule 1
Schedule 2	Schedule 3 (CSF)
	Schedule 31 (CSF)
	Schedule 31 (CTF)
	Schedule 31 (CSI)

### **APPLICATION TO RATE SCHEDULES:**

(T)

The Base Adjustments stated in the above-listed rate schedules reflect the following adjustments (increase). NO FURTHER ADJUSTMENT TO RATES IS REQUIRED.

Residential Rate Schedules: (\$0.01277) per therm (C)
Commercial Rate Schedules: (\$0.00595) per therm (C)

### **GENERAL RULES AND REGULATIONS:**

This Schedule is governed by the terms of this Schedule, the General Rules and Regulations contained in this Tariff and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

Effective: November 1, 2009

P.U.C. Or. 24

Eighth Revision of Sheet 164-1

Effective: November 1, 2009

Effective: November 1, 2009

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Cancels Seventh Revision of Sheet 164-1

### SCHEDULE 164 PURCHASED GAS COST ADJUSTMENT TO RATES

### **PURPOSE:**

To (a) identify the Commodity and Pipeline Capacity Components applicable to the Rate Schedules listed below; and (b) to identify any changes to such components due to changes in the cost of Pipeline capacity and the cost of gas purchased from the Company's suppliers that apply the Rate Schedules listed below.

### **APPLICABLE:**

To the following Rate Schedules of this Tariff:

Schedule 1 Schedule 3 Schedule 31 Schedule 54

Schedule 2 Schedule 19 Schedule 32

### **APPLICATION TO RATE SCHEDULES:**

Annual Sales WACOG [1]	\$0.59044	(I)
Winter Sales WACOG [2]	\$0.57227	(1)
Firm Sales Service Pipeline Capacity Component [3]	\$0.12502	(R)
Firm Sales Service Pipeline Capacity Component [4]	\$1.87	(R)
Interruptible Sales Service Pipeline Capacity Component [5]	\$0.01486	(R)

- [1] Applies to all Sales Service Rate Schedules (per therm) except where Winter Sales WACOG or Monthly Incremental Cost of Gas applies.
- [2] Applies to Sales Customers that request Winter Sales WACOG at the September 15 Annual Service Election.
- [3] Applies to Rate Schedules 1, 2, 3, and Schedule 31 and Schedule 32 Firm Sales Service Volumetric Pipeline Capacity option (per therm).
- [4] Applies to Schedules 31 and 32 Firm Sales Service Peak Demand Pipeline Capacity option (per therm of MDDV per month).
- [5] Applies to Schedule 31 and Schedule 32 Interruptible Sales Service (per therm).

### ADJUSTMENTS TO RATE COMPONENTS:

The above listed components shall be adjusted as follows:

Commodity Component	Firm Pipeline Capacity Component
\$(0.00000)	\$(0.00000)

### **GENERAL TERMS:**

This schedule is governed by the terms of this Schedule, the General Rules and Regulations contained in this Tariff and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

Issued August 31, 2009 NWN Advice No. OPUC 09-12

First Revision of Sheet 166-1 Cancels Original Sheet 166-1

### SCHEDULE 166 ADJUSTMENTS TO RATES (UM 1335)

### **PURPOSE:**

To identify the effects of the annual revenue requirement decrease associated with the adoption of the depreciation study in Docket UM 1335

### **APPLICABLE:**

To the following Rate Schedules of this Tariff:

Schedule 1 Schedule 31
Schedule 2 Schedule 32
Schedule 3 Schedule 33
Schedule 19 Schedule 54

### **APPLICATION TO RATE SCHEDULES:**

Effective: November 1, 2009

The Base Rates in the listed Rate Schedules include the adjustment shown below. NO ADDITIONAL ADJUSTMENT TO RATES IS REQUIRED.

Schedule	Block	Total Base
Scriedule	BIOCK	Adjustment
1R		\$(0.01874)
1C		\$(0.01525)
2		\$(0.01299)
3 (CSF)		\$(0.00914)
3 (ISF)		\$(0.00766)
19		\$(0.84)
31 (CSF)	Block 1	\$(0.00614)
	Block 2	\$(0.00560)
31(CTF)	Block 1	\$(0.00535)
	Block 2	\$(0.00487)
31 (CSI)	Block 1	\$(0.00444)
	Block 2	\$(0.00404)
31 (ISF)	Block 1	\$(0.00447)
	Block 2	\$(0.00404)
31 (ITF)	Block 1	\$(0.00473)
	Block 2	\$(0.00428)
31 (ISI)	Block 1	\$0.08405
	Block 2	\$0.07596
32(CSF)	Block 1	\$(0.00306)
_	Block 2	\$(0.00260)
	Block 3	\$(0.00184)
	Block 4	\$(0.00107)
	Block 5	\$(0.00061)
	Block 6	\$(0.00031)

(continue to Sheet 166-2)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

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### SCHEDULE 166 ADJUSTMENTS TO RATES (UM 1335)

### APPLICATION TO RATE SCHEDULES: (continued) Effective: November 1, 2009

0 1 1 1	Block	Total Base
Schedule		Adjustment
32(ISF)	Block 1	\$(0.00241)
, ,	Block 2	\$(0.00204)
	Block 3	\$(0.00144)
	Block 4	\$(0.00085)
	Block 5	\$(0.00048)
	Block 6	\$(0.00024)
32(CTF) and 32(ITF)	Block 1	\$(0.00299)
	Block 2	\$(0.00255)
	Block 3	\$(0.00180)
	Block 4	\$(0.00104)
	Block 5	\$(0.00060)
	Block 6	\$(0.00030)
32(CSI) and 32(ISI)	Block 1	\$(0.00263)
	Block 2	\$(0.00223)
	Block 3	\$(0.00158)
	Block 4	\$(0.00092)
	Block 5	\$(0.00053)
	Block 6	\$(0.00026)
32(CTI) and 32(ITI)	Block 1	\$(0.00263)
	Block 2	\$(0.00223)
	Block 3	\$(0.00158)
	Block 4	\$(0.00092)
	Block 5	\$(0.00052)
	Block 6	\$(0.00026)
33(CTI) and 33(ITI)		\$(0.00016)
33(CTF) and 33(ITF)		\$(0.00016)

### **GENERAL TERMS**:

Service under this Rate Schedule is governed by the terms of this Rate Schedule, the General Rules and Regulations contained in this Tariff, any other schedules that by their terms or by the terms of this Rate Schedule apply to service under this Rate Schedule, and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

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Third Revision of Sheet 169-1 Cancels Second Revision of Sheet 169-1

Effective: November 1, 2009

### SCHEDULE 169 SPECIAL ADJUSTMENT TO RATES FOR STORAGE INVENTORIES

#### **PURPOSE:**

To identify adjustments to rates in the Rate Schedules listed below that relate to the amortization of balances in the Company's storage inventories.

### **APPLICABLE**:

To the following Rate Schedules of this Tariff:

Schedule 1 Schedule 3 Schedule 31 Schedule 2 Schedule 19 Schedule 32

**APPLICATION TO RATE SCHEDULES:** 

The Total Adjustment amount shown below is included in the Temporary Adjustments reflected in the abovelisted Rate Schedules. NO ADDITIONAL ADJUSTMENT TO RATES IS REQUIRED.

Schedule	Block	Adjustment	Schedule	Block	Adjustment
1R		\$0.00	32 (ISF)	Block 1	\$0.00
1C		\$0.00		Block 2	\$0.00
2		\$0.00		Block 3	\$0.00
3 (CSF)		\$0.00		Block 4	\$0.00
				Block 5	\$0.00
3 (ISF)		\$0.00		Block 6	\$0.00
			32(TF)	Block 1	N/A
19		\$0.00		Block 2	N/A
31 (CSF)	Block 1	\$0.00		Block 3	N/A
	Block 2	\$0.00		Block 4	N/A
31(CTF)	Block 1	N/A		Block 5	N/A
	Block 2	N/A		Block 6	N/A
31 (CSI)	Block 1	\$0.00	32(SI)	Block 1	\$0.00
	Block 2	\$0.00		Block 2	\$0.00
31 (ISF)	Block 1	\$0.00		Block 3	\$0.00
	Block 2	\$0.00		Block 4	\$0.00
31 (ITF)	Block 1	N/A		Block 5	\$0.00
	Block 2	N/A		Block 6	\$0.00
31 (ISI)	Block 1	\$0.00	32(TI)	Block 1	N/A
	Block 2	\$0.00		Block 2	N/A
32 (CSF)	Block 1	\$0.00		Block 3	N/A
	Block 2	\$0.00		Block 4	N/A
	Block 3	\$0.00		Block 5	N/A
	Block 4	\$0.00		Block 6	N/A
	Block 5	\$0.00	33(TI)		N/A
	Block 6	\$0.00	33(TF)		N/A

Issued August 31, 2009 NWN Advice No. OPUC 09-12 and after November 1, 2009

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Effective with service on

Portland, Oregon 97209-3991

P.U.C. Or. 24 Original Sheet 170-1

### SCHEDULE 170 SPECIAL ADJUSTMENT TO RATES FOR PENSION EXPENSE

### **PURPOSE:**

To identify adjustments to rates in the Rate Schedules listed below for the amortization of deferred balances related to the Company's pension expense. The rate adjustments under this Schedule are made pursuant to the Stipulation and Agreement in Docket UM 152 adopted by Commission Order No. 03-507.

### **APPLICABLE**:

To the following Rate Schedules of this Tariff:

Schedule 1 Schedule 3 Schedule 3 Schedule 2 Schedule 3

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### **APPLICATION TO RATE SCHEDULES:**

Effective: November 1, 2009

The Total Adjustment amount shown below is included in the Temporary Adjustments reflected in the above-listed Rate Schedules. NO ADDITIONAL ADJUSTMENT TO RATES IS REQUIRED.

**Schedule Block** Adjustment **Schedule Block** Adjustment Block 1 \$(0.00073) \$(0.00014) 1R 32 (ISF) 1C Block 2 \$(0.00049) \$(0.00012) Block 3 2 \$(0.00049) \$(0.00008) 3 (CSF) \$(0.00035) Block 4 \$(0.00005) Block 5 \$(0.00003) 3 (ISF) \$(0.00030) Block 6 \$(0.00001) Block 1 \$(0.00010) 32 (TF) Block 2 \$(0.00009) Block 3 Block 1 31 (CSF) \$(0.00025) \$(0.00006) Block 2 Block 4 \$(0.00004) \$(0.00023) Block 1 Block 5 31 (CTF) \$(0.00021) \$(0.00002) Block 2 Block 6 \$(0.00019) \$(0.00001) Block 1 Block 1 \$(0.00012) 31 (CSI) \$(0.00017) 32 (SI) Block 2 \$(0.00016) Block 2 \$(0.00010) Block 1 Block 3 31 (ISF) \$(0.00024) \$(0.00007) Block 2 Block 4 \$(0.00021) \$(0.00004) Block 1 Block 5 31 (ITF) \$(0.00020) \$(0.00002) Block 2 Block 6 \$(0.00018) \$(0.00001) Block 1 Block 1 31 (ISI) \$(0.00600) 32 (TI) \$(0.00010) Block 2 Block 2 \$(0.00009) \$(0.00543) Block 1 Block 3 32 (CSF) \$(0.00013) \$(0.00006) Block 2 Block 4 \$(0.00011) \$(0.00004) Block 3 Block 5 \$(0.00008) \$(0.00002) Block 4 \$(0.00004) Block 6 \$(0.00001) Block 5 \$(0.00003) \$(0.00001) 33 (TI) Block 6 33 (TF) \$(0.00001) \$(0.00001)

Issued August 31, 2009 NWN Advice No. OPUC 09-12

P.U.C. Or. 24 Original Sheet 172-1

### SCHEDULE 172 SPECIAL ADJUSTMENT TO RATES FOR INTERVENOR FUNDING

(N)

### **PURPOSE:**

To identify adjustments to rates in the Rate Schedules listed below for the amortization of deferred balances related to Intervenor Funding. The rate adjustments under this Schedule are made pursuant to the Intervenor Funding Agreement in Docket UM 1357 adopted by Commission in Order No. 07-564.

### **APPLICABLE:**

To the following Rate Schedules of this Tariff:

Schedule 1R Schedule 31 (all Industrial Classes)
Schedule 2 Schedule 32 (all Industrial Classes)

Schedule 3 ISF

### **APPLICATION TO RATE SCHEDULES:**

The Total Adjustment amount shown below is included in the Temporary Adjustments reflected in the above-listed Rate Schedules. NO ADDITIONAL ADJUSTMENT TO RATES IS REQUIRED.

Residential Customer Adjustment: \$0.00023 Industrial Customer Adjustment: \$0.00003

(N)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

Effective: November 1, 2009

Portland, Oregon 97209-3991

P.U.C. Or. 24

Third Revision of Sheet 177-1
Cancels Second Revision of Sheet 177-1

### SCHEDULE 177 SYSTEM INTEGRITY PROGRAM RATE ADJUSTMENT

(C)

### **PURPOSE:**

To recover the costs associated with the Company's System Integrity Program in accordance with the Stipulation adopted by Commission in Docket UM 1406, OPUC Order 09-067 entered March 1, 2009.

#### **GENERAL TERMS:**

This Schedule is governed by the terms of this Schedule, the General Rules and Regulations contained in this Tariff and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

### SYSTEM INTEGRITY PROGRAM ADJUSTMENT RATE

The System Integrity Program Adjustment Rate recovers the costs incurred from the Company's System Integrity Program which consists of the following parts:

Part A – Bare Steel Replacement Program This program was initiated in 2001 with an estimated completion date of schedule of 2021. The costs for this program will be classified as capital expenditures. The Company will allocate 70% of the cumulative investment to Residential and Commercial firm sales and transportation customers taking service under Rate Schedules 1, 2, 3, 31 and 54 on an equal cents per therm basis. The remaining 30% will be allocated on an equal percent of margin basis to all customer classes. The cost recovery for this Part shall be as agreed to in the Safety Program Stipulation, dated April 17, 2002.

<u>Part B –Transmission Integrity Management Program (TIMP)</u> – This program was initiated in 2002 in response to the Pipeline Safety Improvement Act of 2002 and PHMSA Natural Gas Integrity Management Rule. Associated costs will be spread to all customer classes on an equal percent of margin.

<u>Part C - Distribution Integrity Management Program (DIMP)</u> – This program was initiated in 2008 and will focus on damage prevention. Associated costs will be spread to all customer classes on an equal percent of margin.

### **SPECIAL PROVISIONS**

- Cost recovery under this Schedule shall not exceed \$12 million dollars per PGA Year without the express written consent from all parties to the Stipulation adopted by Commission Order No. 09-067.
- Each April, the Company will present to the parties to UM 1406 an annual forecast of program expenditures. A report of actual program expenses will be filed with the Commission each August.
- Adjustments under this Schedule will be based on actual and forecasted expense and investment activity through September 30, adjusted to reflect the difference between the previous year's actual versus forecasted costs.

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(continue to Sheet 177-2)

Issued August 31, 2009 NWN Advice No. OPUC 09-12

P.U.C. Or. 24

Ninth Revision of Sheet 177-2

Effective: November 1, 2009

Cancels Eighth Revision of Sheet 177-2 and Original Sheet 177-2.1

# SCHEDULE 177 SYSTEM INTEGRITY PROGRAM RATE ADJUSTMENT (continued)

### SPECIAL PROVISIONS (Continued)

4. For the 2009-2010 PGA Year only, effective November 1, 2009, an adjustment reflecting the final carry over balance of the GeoHazard Repair and Risk Mitigation program will be included in customer rates.

#### TERM:

The System Integrity Program shall remain in effect through December 31, 2021, or until such other time as the Commission may approve.

### **APPLICATION TO RATE SCHEDULES:**

The Adjustments shown below are included in the Base Adjustments in the listed Rate Schedules:

Part A Part B Part C Geo-Haz Total **Schedule Block** Final Adjustment 70% 30% 1R \$0.00364 \$0.00250 \$0.01062 \$0.00000 \$0.00267 \$0.01943 1C \$0.00169 \$0.00000 \$0.00180 \$0.01431 \$0.00364 \$0.00718 2 \$0.00364 \$0.00170 \$0.00722 \$0.00000 \$0.00181 \$0.01437 3 (CSF) \$0.00364 \$0.00120 \$0.00509 \$0.00000 \$0.00128 \$0.01121 3 (ISF) \$0.00364 \$0.00101 \$0.00431 \$0.00000 \$0.00108 \$0.01004 19 \$0.07 \$0.00 \$0.00 \$0.00 \$0.00 \$0.07 \$0.00090 Block 1 \$0.00085 \$0.00359 \$0.00000 31 (CSF) \$0.00364 \$0.00898 Block 2 \$0.00364 \$0.00077 \$0.00329 | \$0.00000 \$0.00083 \$0.00853 Block 1 31(CTF) \$0.00364 \$0.00072 \$0.00307 \$0.00000 \$0.00077 \$0.00820 Block 2 \$0.00066 \$0.00071 \$0.00782 \$0.00364 \$0.00281 \$0.00000 31 (CSI) Block 1 \$0.00364 \$0.00059 \$0.00251 \$0.00000 \$0.00063 \$0.00737 Block 2 \$0.00364 \$0.00054 \$0.00230 \$0.00000 \$0.00058 \$0.00706 31 (ISF) Block 1 \$0.00000 \$0.00081 \$0.00345 \$0.00000 \$0.00087 \$0.00513 Block 2 \$0.00000 \$0.00073 \$0.00311 \$0.00000 \$0.00078 \$0.00462 31 (IFT) Block 1 \$0.00000 \$0.00071 \$0.00300 | \$0.00000 \$0.00075 \$0.00446 Block 2 \$0.00000 \$0.00064 \$0.00271 \$0.00000 \$0.00068 \$0.00403 31 (ISI) Block 1 \$0.00000 \$0.02065 \$0.08785 \$0.00000 \$0.02204 \$0.13054 Block 2 \$0.01866 \$0.11797 \$0.00000 \$0.07939 \$0.00000 \$0.01992 32 (CSF) Block 1 \$0.00000 \$0.00044 \$0.00185 \$0.00000 \$0.00047 \$0.00276 Block 2 \$0.00037 \$0.00040 \$0.00000 \$0.00158 \$0.00000 \$0.00235 Block 3 \$0.00000 \$0.00026 \$0.00111 \$0.00000 \$0.00028 \$0.00165 Block 4 \$0.00000 \$0.00015 \$0.00065 \$0.00000 \$0.00016 \$0.00096 Block 5 \$0.00000 \$0.00009 \$0.00037 \$0.00000 \$0.00009 \$0.00055 \$0.00004 Block 6 \$0.00000 \$0.00019 \$0.00000 \$0.00005 \$0.00028

(continue to Sheet 177-3)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

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P.U.C. Or. 24

Seventh Revision of Sheet 177-3

Cancels Sixth Revision of Sheet 177-3

Original Sheet 177-3.1, Fifth Revision of Sheet 177-4, and Original Sheet 177-4.1

### **SCHEDULE 177** SYSTEM INTEGRITY PROGRAM RATE ADJUSTMENT (continued)

### **APPLICATION TO RATE SCHEDULES:**

Effective: November 1, 2009 The Adjustments shown below are included in the Base Adjustments in the listed Rate Schedules:

Calcadula	Disals	Part A		Part B	Part C	Geo-Haz	Total
Schedule	Block	700/	200/	1		Final	Adjustment
		70%	30%				
32 (ISF)	Block 1	\$0.00000	\$0.00047	\$0.00200	\$0.00000	\$0.00050	\$0.00297
	Block 2	\$0.00000	\$0.00040	\$0.00170	\$0.00000	\$0.00043	\$0.00253
	Block 3	\$0.00000	\$0.00028	\$0.00120	\$0.00000	\$0.00030	\$0.00178
	Block 4	\$0.00000	\$0.00017	\$0.00070	\$0.00000	\$0.00018	\$0.00105
	Block 5	\$0.00000	\$0.00009	\$0.00040	\$0.00000	\$0.00010	\$0.00059
	Block 6	\$0.00000	\$0.00005	\$0.00020	\$0.00000	\$0.00005	\$0.00030
32 (TF)	Block 1	\$0.00000	\$0.00035	\$0.00151	\$0.00000	\$0.00038	\$0.00224
	Block 2	\$0.00000	\$0.00030	\$0.00128	\$0.00000	\$0.00032	\$0.00190
	Block 3	\$0.00000	\$0.00021	\$0.00090	\$0.00000	\$0.00023	\$0.00134
	Block 4	\$0.00000	\$0.00012	\$0.00053	\$0.00000	\$0.00013	\$0.00078
	Block 5	\$0.00000	\$0.00007	\$0.00030	\$0.00000	\$0.00008	\$0.00045
	Block 6	\$0.00000	\$0.00004	\$0.00015	\$0.00000	\$0.00004	\$0.00023
32 (SI)	Block 1	\$0.00000	\$0.00042	\$0.00177	\$0.00000	\$0.00044	\$0.00263
, ,	Block 2	\$0.00000	\$0.00035	\$0.00150	\$0.00000	\$0.00038	\$0.00223
	Block 3	\$0.00000	\$0.00025	\$0.00106	\$0.00000	\$0.00027	\$0.00158
	Block 4	\$0.00000	\$0.00015	\$0.00062	\$0.00000	\$0.00016	\$0.00093
	Block 5	\$0.00000	\$0.00008	\$0.00035	\$0.00000	\$0.00009	\$0.00052
	Block 6	\$0.00000	\$0.00004	\$0.00018	\$0.00000	\$0.00004	\$0.00026
32 (TI)	Block 1	\$0.00000	\$0.00035	\$0.00148	\$0.00000	\$0.00037	\$0.00220
	Block 2	\$0.00000	\$0.00030	\$0.00125	\$0.00000	\$0.00032	\$0.00187
	Block 3	\$0.00000	\$0.00021	\$0.00089	\$0.00000	\$0.00022	\$0.00132
	Block 4	\$0.00000	\$0.00012	\$0.00052	\$0.00000	\$0.00013	\$0.00077
	Block 5	\$0.00000	\$0.00007	\$0.00030	\$0.00000	\$0.00007	\$0.00044
	Block 6	\$0.00000	\$0.00003	\$0.00015	\$0.00000	\$0.00004	\$0.00022
33 (all)		\$0.00000	\$0.00002	\$0.00009	\$0.00000	\$0.00002	\$0.00013

Issued August 31, 2009 NWN Advice No. OPUC 09-12

### SCHEDULE 187 SPECIAL RATE ADJUSTMENT FOR MIST CAPACITY RECALL

(N)

### **PURPOSE:**

The purpose of this schedule is to reflect the rate effects of the Company's recalling of Mist storage capacity for use by the Company's core customers.

### **APPLICABLE:**

To the following Rate Schedules of this Tariff:

Schedule 1 Schedule 3 Schedule 32

Schedule 2 Schedule 31

APPLICATION TO RATE SCHEDULES: Effective: November 1, 2009

The Total Adjustment amounts shown below are included in the Base Adjustments reflected in the above-listed Rate Schedules. NO ADDITIONAL ADJUSTMENT TO RATES IS REQUIRED.

Cabadula	Disala	Mist Recall	
Schedule 1R	Block	Base Rate Adjustment [1] \$0.00028	
1C		\$0.00028	
2		<b>\$</b> 0.00018	
3CSF		\$0.00019	
3ISF		\$0.00013 \$0.00011	
	D	*	
31CSF	Block 1	\$0.00009	
0.4105	Block 2	\$0.00009	
31ISF	Block 1	\$0.00009	
04001	Block 2	\$0.00008	
31CSI	Block 1	\$0.00007	
0.4101	Block 2	\$0.0006	
31ISI	Block 1	\$0.00230	
22225	Block 2	\$0.00208	
32CSF	Block 1	\$0.0005	
	Block 2	\$0.0004	
	Block 3	\$0.00003	
	Block 4	\$0.00002	
	Block 5	\$0.00001	
	Block 6	\$0.00000	
32I SF	Block 1	\$0.00005	
	Block 2	\$0.00004	
	Block 3	\$0.00003	
	Block 4	\$0.00002	
	Block 5	\$0.00001	
	Block 6	\$0.00001	
32CSI /32ISI	Block 1	\$0.00005	
	Block 2	\$0.00004	
	Block 3	\$0.00003	
	Block 4	\$0.00002	
	Block 5	\$0.00001	
	Block 6	\$0.00000	

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Issued August 31, 2009 NWN Advice No. OPUC 09-12

P.U.C. Or. 24

Tenth Revision of Sheet 190-1 Cancels Ninth Revision of Sheet 190-1

### SCHEDULE 190

### PARTIAL DECOUPLING MECHANISM

### **PURPOSE**:

To (a) describe the partial decoupling mechanism established in accordance with a Stipulation and Agreement adopted by the Oregon Public Utility Commission (OPUC) in Docket UG 143, Order No. 02-634, dated September 12, 2002, and later reauthorized, with modifications, in Docket UG 163, Order No. 05-934, dated August 25, 2005; and (b) identify the adjustment applicable to rates under the Rate Schedules listed below.

### TERM:

This Schedule shall automatically terminate on October 31, 2012, or on such other date as the Commission may approve.

### **APPLICABLE:**

To Residential and Commercial Customers served on the following Rate Schedules of this Tariff:

Residential	Commercial
Schedule 1	Schedule 1
Schedule 2	Schedule 3(SF)
	Schedule 31(SF)
	Schedule 31(SI)
	Schedule 31(TF)

### **ADJUSTMENT TO RATE SCHEDULES:**

The Temporary Adjustments for Residential and Commercial Customers taking service on the above-listed Rate Schedules includes the following adjustment:

Residential Rate Schedules: \$0.03311 per therm (Commercial Rate Schedules: \$0.00258 per therm (Commercial Rate Schedule

### **PARTIAL DECOUPLING DEFERRAL ACCOUNT:**

 Each month, the company will calculate the difference between weather-normalized usage and the calculated baseline usage for each Residential and Commercial Customer group. The resulting usage differential shall be multiplied by the per therm distribution margin for the applicable customer group.

The Company shall defer and amortize, with interest, 100% of the distribution margin differential in a sub-account of Account 186. The deferral will be a credit (accruing a refund to customers) if the differential is positive, or a debit (accruing a recovery by the company) if the differential is negative.

(continue to Sheet 190-2)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

Effective: November 1, 2009

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P.U.C. Or. 24

Ninth Revision of Sheet 190-2 Cancels Eighth Revision of Sheet 190-2

### SCHEDULE 190

### PARTIAL DECOUPLING MECHANISM (continued)

### PARTIAL DECOUPLING DEFERRAL ACCOUNT (continued):

2. The baseline usage shall be determined from actual weather normalized usage for the Company's most recent rate case, as adjusted for any price elasticity effects since that rate case.

The following is an example baseline usage calculation for the Residential Group:

Weather-normalized usage, divided by	<u>330,164,716</u>
Residential Customers, equal	450,709
Normalized use per therm per customer	733
October 1 price decrease	-10%
Usage increase due to price elasticity (-10% x -0.172)	1.72%
Estimated usage increase due to price elasticity	5,678,833
(weather normalized usage x % of usage increase)	
Total New Baseline Usage: (weather normalized usage plus	
estimated usage increase), divided by	<u>335,843,549</u>
customer count, equal	450,709
Reset baseline usage per therm per customer	745

3. Weather-normalized usage is calculated using the approach to weather normalization adopted in the Company's last general rate case, Docket UG 152. The weather data is taken from the stations identified in RULE 24.

<u>Step One</u>. For the heating season months October through May, usage is normalized by taking the difference between normal and actual heating degree days for each district using a base of 59 degrees for Residential and 58 degrees for Commercial.

<u>Step Two</u>. This step derives the per-therm customer variance by multiplying the heating degree-day difference by the usage coefficient of .1958 for Residential variances, and .7669 for Commercial variances.

<u>Step Three</u>. The per-therm customer variance is multiplied by the appropriate customer count, by district, with the sum of the district results representing the normalized therm amount.

- 4. Baseline usage will be adjusted to reflect actual customers billed each month.
- 5. The per therm distribution margins to be used in the deferral calculation effective November 1, 2009 is \$0.44254 per therm for Residential customers and \$0.30374 per therm for Commercial customers.

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(continue to Sheet 190-3)

Issued August 31, 2009 NWN Advice No. OPUC 09-12

P.U.C. Or. 24

Seventh Revision of Sheet 195-4 Cancels Sixth Revision of Sheet 195-4

#### SCHEDULE 195 WEATHER ADJUSTED RATE MECHANISM

(WARM Program) (continued)

#### WARM FORMULA: (continued)

a. The statistical coefficients to be used in the calculation of the WARM Adjustment Factor effective with the WARM Period commencing November 15, 2003 are:

Schedule 2: .1958	Schedule 3:	.7669
-------------------	-------------	-------

c. The applicable margins to be used in the calculation of the WARM Adjustment Factor effective with the WARM Period commencing January 1, 2009 are:

Schedule 2: \$0.42963 Schedule 3: \$0.34743
---

Weather data used in the calculation of HDD for each customer shall be from the same weather stations and weather zones that are used in the determination of thermal units as set forth in Rule 24.

#### **WARM BILL EFFECTS:**

The following table depicts the impact on residential **RATE SCHEDULE 2** and commercial **RATE SCHEDULE 3** customer bills, respectively, at specified variations in HDDs.

	RESIDE	NTIAL	COMM	IERCIAL
HDD	Equivalent therms	Total Monthly	Equivalent therms	Total Monthly WARM
Variance		WARM adjustment		adjustment
(+ or -)		(+ or -) *		(+ or -) *
1	.1958	\$0.08	.7669	\$0.27
5	.9790	\$0.42	3.8345	\$1.33
10	1.958	\$0.84	7.669	\$2.66
15	2.937	\$1.26	11.5035	\$4.00
20	3.916	\$1.68	15.338	\$5.33
25	4.895	\$2.10	19.1725	\$6.66
30	5.874	\$2.52	23.007	\$7.99
35	6.853	\$2.94	26.8415	\$9.33
40	7.832	\$3.36	30.676	\$10.66
45	8.811	\$3.79	34.5105	\$11.99
50	9.790	\$4.21	38.345	\$13.32

To calculate variations beyond or in-between specified levels, multiply the desired HDD variance by the applicable statistical coefficient, and then multiply that sum by the applicable margin.

To obtain the cent per therm effect of the Warm Adjustment, divide the WARM Adjustment by the number of therms used during the billing month.

(continue to Sheet 195-5)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

Issued by: NORTHWEST NATURAL GAS COMPANY d.b.a. NW Natural

220 N.W. Second Avenue Portland, Oregon 97209-3991

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P.U.C. Or. 24

Sixth Revision of Sheet 195-5 Cancels Fifth Revision of Sheet 195-5

#### SCHEDULE 195 WEATHER ADJUSTED RATE MECHANISM

(WARM Program) (continued)

WARM BILL EFFECTS: (continued)

**Example Bill Calculation:** 

Here is the how the WARM adjustment is calculated for a residential **RATE SCHEDULE 2** customer where the billing rate is \$1.14047 cents per therm, the HDD variance is 50 HDDs colder than normal, and the monthly therm usage is 129 therms:

HDD Differential: Normal HDDs: 600 HDDs

Actual HDDs: 650 HDDs

HDD variance: 600 - 650 = -50 HDDs

Equivalent Therms: HDD variance: -50 HDDs

Statistical coefficient: .1958

Equivalent therms:  $-50 \times .1958 = -9.79$  therms

Total Warm Adjustment: Equivalent therms: -9.79 therms

Margin Rate: \$0.42963

Total WARM Adj.:  $-9.79 \times $0.42963 = -$4.20608$ 

Total WARM Adjustment

converted to cents per therm: Total WARM Adj. -\$4.44573

Monthly usage: 129 therms

Cent/therm Adj.:  $-\$4.20608 \div 129 = -\$0.03261$ 

Billing Rate per therm: Current Rate/therm: \$1.14047

WARM cent/therm Adj. -\$0.03261

WARM Billing Rate: \$1.14047 + -\$0.03261 = \$1.10786

Total WARM Bill: Customer Charge: \$6.00

Usage Charge: \$1.10786

Total  $(129 \times \$1.10786) + \$6.00 = \$148.91$ 

(continue to Sheet 195-6)

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Issued by: NORTHWEST NATURAL GAS COMPANY d.b.a. NW Natural 220 N.W. Second Avenue Portland, Oregon 97209-3991 (C)

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P.U.C. Or. 24 Original Sheet 305-1

### SCHEDULE 305 SPECIAL ADJUSTMENT TO RATES FOR SMART ENERGY PROGRAM COSTS

(N)

#### **PURPOSE:**

To identify adjustments to rates in the Rate Schedules listed below for the amortization of deferred balances related to the Company's Smart Energy Program.

#### **APPLICABLE:**

To the following Rate Schedules of this Tariff:

Schedule 1R Schedule 3 CSF Schedule 31 CSI Schedule 1C Schedule 19 Schedule 32 CSF

Schedule 2 Schedule 31 CSF

#### **APPLICATION TO RATE SCHEDULES:** Effective: November 1, 2009

The Total Adjustment amount shown below is included in the Temporary Adjustments reflected in the above-listed Rate Schedules. NO ADDITIONAL ADJUSTMENT TO RATES IS REQUIRED.

Volumetric Rate Adjustment (per therm): \$0.00112 Schedule 19 Adjustment (per mantle) \$0.02

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Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

Portland, Oregon 97209-3991

Sixth Revision of Sheet P-2 Cancels Fifth Revision of Sheet P-2

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#### SCHEDULE P PURCHASED GAS COST ADJUSTMENTS (continued)

#### **DEFINITIONS** (continued):

- 7. Estimated Annual Sales Weighted Average Cost of Gas (Annual Sales WACOG): The estimated Annual Sales WACOG is the default Commodity Component for billing purposes, and is used for purposes of calculating the monthly gas cost deferral costs for entry into the Account 191 sub-accounts calculated by the following formula: (Forecasted Purchases at Adjusted Contract Prices) divided by forecasted sales volumes.
  - "Forecasted Purchases" means November 1 October 31 forecasted sales volumes, "weather-normalized", plus a percentage for distribution system LUFG.
  - b. "Distribution system embedded LUFG" means the 5-year average of actual distribution system LUFG, not to exceed 2%.
  - "Adjusted contract prices" means actual and projected contract prices that are adjusted by each associated Canadian pipeline's published (closest to August 1) fuel use and line loss amount provided for by tariff, and by each associated U.S. pipeline's tariffed rate.

Effective November 1, 2009: Estimated Annual Sales WACOG per therm (w/ revenue sensitive): \$0.59044 Estimated Annual Sales WACOG per therm (w/o revenue sensitive): \$0.57277

Estimated Winter Sales WACOG: The Company's weighted average Commodity Cost of 8. Gas for the five-month period November through March. Effective November 1, 2009:

Estimated Winter Sales WACOG per therm (w/ revenue sensitive): \$0.57227 Estimated Winter Sales WACOG per therm (w/o revenue sensitive): \$0.55515

- Estimated Non-Commodity Cost: Estimated annual Non-Commodity gas costs shall be 9. equal to estimated annual Demand Costs, less estimated annual Capacity Release Benefits, plus or minus estimated annual pipeline refunds or surcharges.
- Estimated Non-Commodity Cost per Therm Firm Sales: The portion of the Estimated 10. annual Non-Commodity Cost applicable to Firm Sales Service divided by November 1 -October 31 forecasted Firm Sales Service volumes. Effective November 1, 2009:

Estimated Non-Commodity Cost per therm-Firm Sales (w/revenue sensitive): \$0.12502 Estimated Non-Commodity Cost per therm-Firm Sales (w/o revenue sensitive: \$0.12128

(continue to Sheet P-3)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

Seventh Revision of Sheet P-3 Cancels Sixth Revision of Sheet P-3

### SCHEDULE P PURCHASED GAS COST ADJUSTMENTS (continued)

#### **DEFINITIONS** (continued):

11. Estimated Non-Commodity Cost per Therm – Interruptible Sales: The portion of the Estimated annual Non-Commodity Cost applicable to Interruptible Sales Service divided by November 1 – October 31 forecasted Interruptible Sales Service volumes. Effective November 1, 2009:	
,	(T)
Estimated Non-Commodity Cost per therm-Interruptible Sales (w/revenue sensitive):	(1)
\$0.01486	(1)
Estimated Non-Commodity Cost per therm-Interruptible Sales (w/o revenue sensitive):	(1)
\$0.01442	(1)
12. Estimated Non-Commodity Cost per Therm – MDDV Based Sales: The portion of the Estimated annual Non-Commodity Cost applicable to MDDV Based Sales Service. Effective November 1, 2009: Estimated Non-Commodity Cost per therm - MDDV Based Sales (w/revenue sensitive):  \$1.87 Estimated Non-Commodity Cost per therm- MDDV Based Sales (w/o revenue sensitive): \$1.81	(T) (I) (I)

- 13. <u>Actual Monthly Firm Sales Service Volumes</u>: The total actual monthly billed Firm Sales Service therms, excluding MDDV based volumes, adjusted for estimated unbilled Firm Sales Service therms.
- Actual Monthly Interruptible Sales Service Volumes: The total actual monthly billed Interruptible Sales Service therms, adjusted for estimated unbilled Interruptible Sales Service therms.
- Actual Monthly MDDV Based Firm Sales Service Volumes: The total actual monthly billed Firm Sales Service Volumes for Rate Schedule 31 and Rate Schedule 32 customers billed under the Firm Pipeline Capacity Charge - Peak Demand option, adjusted for estimated unbilled MDDV Firm Sales Service Volumes.
- 16. Embedded Commodity Cost: The Estimated Annual Sales WACOG, updated for October 31 storage inventory prices, multiplied by the Total of the Actual Monthly Firm and Interruptible Sales Service Volumes.
- 17. <u>Embedded Non-Commodity Cost per Therm Firm Sales Service</u>: The Estimated Non-Commodity Cost per Therm Firm Sales Service multiplied by the Actual Monthly Firm Sales Service Volumes.
- 18. <u>Embedded Non-Commodity Cost per Therm Interruptible Sales Service</u>: The Estimated Non-Commodity Cost per Therm Interruptible Sales Service multiplied by the Actual Monthly Interruptible Sales Service Volumes.

(continue to Sheet P-4)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009

P.U.C. Or. 24

Ninth Revision of Sheet P-5 Cancels Eighth Revision of Sheet P-5

#### SCHEDULE P PURCHASED GAS COST ADJUSTMENTS (continued)

#### **CALCULATION OF MONTHLY GAS COSTS FOR DEFERRAL PURPOSES (continued):**

2. A debit or credit entry shall be made equal to 100% of any monthly difference between Embedded Non-Commodity Costs and Monthly Seasonalized Fixed Charges. The monthly Seasonalized Fixed Charges for the period November 1, 2009 through November 30, 2010 are:

November 2009	\$8,395,499	(C)
December 2009	\$11,788,859	
January 2010	\$11,530,612	
February	\$9,466,937	
March	\$8,126,382	
April	\$5,834,847	
May	\$3,925,687	
June	\$2,626,200	
July	\$2,092,431	
August	\$2,085,682	
September	\$2,392,301	
October	\$5,191,674	
November	\$8,508,815	
ANNUAL TOTAL	\$73,570,427	(C)

- 3. A debit or credit entry shall be made equal to 90% of the difference between the Actual Commodity Cost and the Embedded Commodity Cost. A debit or credit entry will also be made equal to 100% of the difference between storage withdrawals priced at the actual book inventory rate as of October 31 prior to the PGA year and storage withdrawals priced at the inventory rate used in the PGA filing.
- 4. Monthly differentials shall be deemed to be positive if actual costs exceed embedded costs and to be negative if actual costs fall below embedded costs.
- 5. The cost differential entries shall be debited to the sub-accounts of Account 191 if positive, and credited to the sub-accounts of Account 191 if negative.
- 6. Interest Beginning November 1, 2007, the Company shall compute interest on existing deferred balances on a monthly basis using the interest rate(s) approved by the Commission.

(continue to Sheet P-6)

Issued August 31, 2009 NWN Advice No. OPUC 09-12 Effective with service on and after November 1, 2009 (C)

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220 N.W. Second Avenue Portland, Oregon 97209-3991

Exhibit: A

### BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON



**SUPPORTING MATERIALS** 

TO

**PGA FILING GUIDELINES** 

**DOCKET UM 1286** 

**OPUC ORDER NOS. 09-263 / 09-248** 

Purchased Gas Cost and Technical Adjustments to Rates

NWN Advice No. OPUC 09-12

#### NWN Advice No. OPUC 09-12 INDEX

Guideline Reference	Data Requirement	Location	Link
Reference	Data Requirement	Location	LITIK
III	Assumptions		
1	General Rate Development		
a)	Deferrals and amortizations: LDCs should use forecasted therms to develop rate increments associated with deferrals and amortizations	See Workpapers of Natasha Siores (submitted separately)	
b)	Calculation and application of revenue sensitive costs: When revenue sensitive costs are updated, the LDC should send in work papers to support revision. The LDCs should first determine the entire revenue requirement associated with the annual PGA and then apply the revenue sensitive calculation to the total. Allocation of revenue requirement totals into rate increments should be made after that point. Alternatively, the revenue requirement could be allocated to customer classes and then the total for each customer class could be grossed up. The rate increment would be calculated from the grossed up total.	Exhibit B, pages 3 and 4	
c)	Deferral accounts: The revenue totals in the PGA Summary Sheet should tie directly to deferral account totals. Utility will provide 2 columns consisting of preand post-grossed up totals	See Workpapers of Natasha Siores (submitted separately)	
d)	Annual Sales WACOG: The forward price curve used by the utility in its PGA filing for its Annual Sales WACOG should be based on the formula described in Order 08-504, at page 16-17.	See Work papers of Natasha Siores (submitted separately)	
2	PGA Amortizations unrelated to gas distribution: With its Spring Earnings filing, the company should provide Staff with a notice of "intent to request amortization effective November 1" for any deferral it intends to amortize in the PGA that requires a separate earnings test.	See NWN Spring Earnings filing dated May 1, 2009	
	The notice should include a completed (hard copy and electronic) Deferral Summary Worksheet. The LDC would be expected to submit an updated summary sheet and other necessary information when filing for amortization.	See Workpapers of Natasha Siores (submitted separately)	

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#### NWN Advice No. OPUC 09-12 INDEX

Guideline Reference	Data Requirement	Location	Link
3	Calculation of 3% Test. The calculation for the 3% Test should conform to ORS 757.259(6), (i.e. total proposed amortization times the LDC's gross revenues from the preceding year should not exceed 3%). Gross revenues is defined as all Oregon revenues including Other Revenues that are booked above the line. (First column of the ROO from the preceding year.) Preceding year is defined as preceding calendar year as submitted in the ROO provided for the spring earnings review.) The 3% consists of the total of all amortizations. If the total exceeds 3%, it will be dealt with on a case by case basis as provided by related statutes and regulation. See ORS 757.259(7).	Exhibit B, Page 17	
4	Deferral Application	See separately filed: (1) Application for Reauthorization, Docket UM 1027 dated August 14, 2009; and (2) Application for Reauthorization of purchased gas costs dated August 31, 2009 (not yet docketed)	
IV	General Information and Forecasting		
1	General Information		
a)	Definitions of all major terms and acronyms in the data and information provided.	Exhibit A	Definitions!/
b)	Any significant new regulatory requirements identified by the utility that in the utility's judgment directly impacts the Oregon portfolio design, implementation, or assessment.	Exhibit A	IV.1.b!A1
c)	All forecasts of demand, weather, etc. upon which the gas supply portfolio for the current PGA filing is based should be based on a methodology and data sources that are consistent with the most recently acknowledged IRP or IRP update for the utility. If the methodology and/or data sources are not consistent each difference should be identified, explained, and documented as part of the PGA filing workpapers.	Exhibit A	
2	Workpapers		
a)	PGA Summary Sheet	Exhibit A, IV.2.a	IV.2.a!A1
b)	Gas Supply Portfolio and Related Transportation	F 1 7 7 4 19 6 1 7 5	N/ 0 1 1 = " :
1	General Information  Overview of portfolio planning process	Exhibit A, IV.2.b 1-7 Exhibit A, IV.2.b 1-7	IV.2.b.1-7'!A
3	LDC sales system demand forecasting	Exhibit A, IV.2.b 1-7  Exhibit A, IV.2.b 1-7	IV.2.b.1-7'!/
	, , , , , , , , , , , , , , , , , , ,	·	
4	Natural gas price forecasts	Exhibit A, IV.2.b 1-7	IV.2.b.1-7'!A
5	Physical resources for the portfolio	Exhibit A; IV.2.b 1-7 See also Appendix 'A', V.1	IV.2.b.1-7'!A

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#### NWN Advice No. OPUC 09-12 INDEX

Guideline Reference	Data Requirement	Location	Link
6	Financial resources for the portfolio (derivatives and other financial arrangements)	Exhibit A; IV.2.b 1-1 See also Appendix 'A', V.2	IV.2.b.1-7'!A1
7	Storage resources	Exhibit A, IV.2.b 1-7 See also Appendix 'A', V.7	IV.2.b.1-7'!A1
8	Forecasted annual and peak demand used in the current PGA portfolio, with and without programmatic and non-programmatic demand response, with explanation	Exhibit A, IV.2.b 8	IV.2.b.8!A1
9	Forecasted annual and peak demand used in the current PGA portfolio, with and without effects from gas supply incentive mechanisms	Exhibit A, IV.2.b 9	IV.2.b.9!A1
10	Overview of portfolio documentation provided	See Exhibit A, IV.1 - 7	IV.2.b.1-7'!A1
V.	Data and Analysis (in the entirety)	Appendix 'A'	

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### NW Natural PGA Filing Guidelines OPUC Order Nos. 09-263 – 09-248, Docket UM 1286

On all an IV	4. One and before atten-
Section IV. a)	1 General Information Definitions and Acronyms
	Dominione and Actionyme
Base Load gas (contract)	Purchase agreements in which NW Natural has to take a set amount of gas each day from a supplier for the term of the agreement. Usually involves paying for any gas not taken unless excused by reason of Force Majeure.
Base Rate	The portion of rates that does not change outside of a general rate case, except as allowed through a Commission approved base rate adjustment.
Base Rate Adjustment	A permanent adjustment to rates approved by the Commission outside of a general rate case process.
Collar	Financial hedges that set ceiling and floor values on the price of gas purchases.
Commodity Component	The Tariff term used to refer to the cost of gas component of a customer's billing rate, and which will equal either (a) the Annual Sales WACOG, (b) the Winter Sales WACOG, or (c) the Monthly Incremental Cost of Gas.
Demand [Charge]	The term used to refer to Pipeline Capacity related costs.
Derivative products	Financial transactions related to gas supply, including but not limited to hedges, swaps, puts, calls, options and collars that are exercised to provide price stability/control or supply reliability for sales service customers.
EIA	U.S. Energy Information Administration
FERC	Federal Energy Regulatory Commission
Financial swaps	Transactions that involve an exchange of cash flows with a counterparty.
Financially hedged	Purchases that have associated financial swaps such that the price of the gas is fixed for a pre-determined period of time.
IRP	Integrated Resource Plan
MDDV	Maximum Daily Delivery Volume
NWP	Northwest Pipeline
Off-system storage	Storage facilities located outside NW Natural's service territory.
On-system storage	Storage facilities located inside NW Natural's service territory.
PGA	Purchased Gas Adjustment

be theoretical (the "design day") or actual.

Peak day

Definitions Page 4

The day in which volumes distributed or sold by NW Natural are at a maximum. May

Pipeline Capacity The quantity (volume) of natural gas available on the interstate pipeline for the

transportation of gas supplies to the Company's distribution system. Pipeline

Capacity related costs are often referred to as "Demand".

Recallable gas supply/capacity Refers to arrangements that allow NW Natural to use the upstream pipeline capacity

and gas supplies held by third parties.

**Revenue Sensitive**The amount by which rates are adjusted to reflect the effects of revenue related

costs, such as uncollectible expense, regulatory fees, and city license and franchise

fees

Swing gas (contract) Purchase agreements in which NW Natural has the right, but not the obligation, to

take gas from a supplier on any given day.

**Technical Rate Adjustments** Also referred to as Temporary Rate Adjustments.

**Therm** A unit of heating value equivalent to 100,000 Btus. The amount of heat energy in

approximately 100 cubic feet of Natural Gas.

**Total Commodity Cost** The combined costs for all purchased gas supplies, excluding transportation costs.

Total Gas Cost The combined costs of all purchased gas supplies and associated transportation

costs.

Transportation Cost The combined costs for all pipeline related demand, capacity or reservation charges

Transportation Resources The various upstream pipeline capacity agreements held by the company.

**Upstream pipeline**Those pipelines that collect natural gas from the areas where it is produced in the

British Columbia, Alberta and the U.S. Rocky Mountain supply regions and transport

that gas to NW Natural's service territory.

Upstream pipeline capacity Refers to the rights that NW Natural has obtained to transport gas on upstream

pipelines.

WACOG The Company's weighted average commodity cost of gas (excluding transportation

cost), also referred to as Annual Sales WACOG.

Winter Sales WACOG The Company's winter period weighted average commodity cost of gas (excluding

transportation cost).

Definitions Page 5

# NW Natural PGA Filing Guidelines OPUC Order Nos. 09-263 – 09-248, Docket UM 1286

- IV General Information and Forecasting
- 1 General Information
- b) Any significant new regulatory requirements identified by the utility that in the utility's judgment directly impacts the Oregon portfolio design, implementation, or assessment.

While there are efforts in Congress to impose new regulatory requirements on over-the-counter (OTC) derivative transactions such as those utilized by the company, nothing new has been implemented yet. Accordingly, there has been no impact on the company's portfolio design, implementation or assessment. We continue to monitor the progress of the proposed legislation and are working through the AGA in this regard.

IV.1.b Page 6

# NW Natural PGA Filing Guidelines OPUC Order Nos. 09-263 – 09-248, Docket UM 1286

- IV General Information and Forecasting
- 1 General Information
- c) All forecasts of demand, weather, etc. upon which the gas supply portfolio for the current PGA filing is based should be based on a methodology and data sources that are consistent with the most recently acknowledged IRP or IRP update for the utility. If the methodology and/or data sources are not consistent each difference should be identified, explained, and documented as part of the PGA filing workpapers.

In accordance with the PGA Filing Guidelines at Section IV(1)(c), the Company acknowledges that all forecasts of demand, weather, etc. upon which the gas supply portfolio for this PGA filing is based on the methodology and data sources that are consistent with the Company's most recently acknowledged IRP.

IV.1.c Page 7

#### **NW Natural PGA Filing Guidelines** OPUC Order Nos. 09-263 - 09-248, Docket UM 1286

- IV. General Information and Forecasting
- 2 Workpapers a. PGA Summary Sheet

	Amount	Location in Company Filing (cite)
1) Change in Annual Revenues		
(Per OAR 860-022-0017(3)(a))		
A) Dollars (To .1 million)	(\$174,100,000)	Exhibit B, Page 3
B) Percent (To .1 percent)	-19.85%	" Exhibit b, 1 age 5
by Ference (10 12 percent)	15.05 70	
2) Annual Revenues Calculation (Whole Dollars)		
A) PGA Cost Change (Commodity & Transportation)	(171,542,293)	Exhibit B, Page 3
B) Remove Last Year's Temporary Increment Total	(10,194,193)	II .
C) Add New Temporary Increment	(12,020,782)	"
D) Other Additions or Subtractions ( <i>Break out &amp; List each below Attach additional sheet if necessary</i> )		
1) Net Safety Programs	791,000	Exhibit B, Page 3
2) Storage Recall	95,825	п
3) Remove Coos Bay	145,783	II
4) Elasticity	(5,888,966)	п
5) UM 1335	4,076,000	П
6)	-	
E) Total Proposed Change	(174,149,240)	п
3) Residential Bill Effects Summary		
A) Residential Schedule 2 Rate Impacts		
1) Current Billing Rate per Therm	\$1.39384	Exhibit B, Page 2
2) Proposed Billing Rate per Therm	\$1.14047	"
3) Rate Change Per Therm	(\$0.25337)	
4) Percent Change per Therm (to .1%)	-18.2%	
B) Average Residential Bill Impact (forecasted weather-normalized annual)		
1) Average Residential Monthly Use	55	Exhibit B, Page 2
2) Customer Charge	\$6.00	II
3) Current Average Monthly Bill	\$82.66	II .
4) Proposed Average Monthly Bill	\$68.73	11
5) Change in Average Monthly Bill	(\$13.93)	11
6) Percent change in Average Monthly Bill (to .1%)	-16.9%	u u
C) Average January Residential Bill Impact		
Average January Residential Use (forecasted weather-normalized)	108	N/A
2) Customer Charge	\$6.00	N/A
3) Current Average January Bill	\$156.53	N/A
4) Proposed Average January Bill	\$129.17	N/A
5) Change in Average January Bill	(\$27.36)	N/A
6) Percent change in Average January Bill (to .1%)	(+=: :50)	r
	-17.5%	N/A
4) Breakdown of Costs	-17.570	IV/A
A) Embedded in Rates		
1) Total Commodity Cost	0	

IV.2.a Page 8

a) Total Demand Cost (assoc. w/ supply)	0	
b) Total Peaking Cost (assoc. w/ supply)		
c) Total Reservation Cost (assoc. w/ supply)	0	
d) Total Volumetric Cost (assoc. w/ supply)	\$560,273,612	N/A
e) Total Storage Cost (assoc. w/ supply)	0	1471
f) Other	\$2,213,269	N/A
2) Total Transportation Cost (Pipeline related)	0	·
a) Total Upstream Canadian Toll	0	
i.Total Demand, Capacity, or Reservation Cost	33,892,586	N/A
ii. Total Volumetric Cost	0	
b) Total Domestic Cost	0	
i. Total Demand, Capacity, or Reservation Cost	48,748,373	N/A
ii. Total Volumetric Cost	0	
3) Total Storage Costs	\$84,692,441	N/A
4) Capacity Release Credits	0	
5) Total Gas Costs	\$729,820,281	N/A
B) Projected For New Rates		
1) Total Commodity Cost	0	
a) Total Demand Cost (assoc. w/ supply)	0	
b) Total Peaking Cost (assoc. w/ supply)	0	
c) Total Reservation Cost (assoc. w/ supply)	0	
d) Total Vaporization Cost (assoc. w/ supply)	0	
e) Total Volumetric Cost (assoc. w/ supply)	\$342,947,047	Exhibit B, Page 5
		Exhibit b, 1 age 3
f) Total Storage Cost (assoc. w/ supply)	0	Establish D. Donne E
g) Other (A&G Benchmark Savings)	\$1,998,052	Exhibit B, Page 5
2) Total Transportation Cost (Pipeline related)	0	
a) Total Upstream Canadian Toll	0	
i.Total Demand, Capacity, or Reservation Cost	32,881,145	Exhibit B, Page 6
ii. Total Volumetric Cost	0	, 3
b) Total Domestic Cost	0	
b) Total Domestic Cost	0	
i. Total Demand, Capacity, or Reservation Cost	48,673,480	Exhibit B, Page 6
ii. Total Volumetric Cost	0	
3) Total Storage Costs	\$68,469,227	Exhibit B, Page 5
4) Capacity Release Credits	0	
5) Total Gas Costs	\$494,968,951	Exhibit B, Page 5
5) WACOG (Weighted Average Cost of Gas)		
A) Embedded in Rates		
1) WACOG (Commodity Only)	0	
a. With revenue sensitive	\$0.85126	N/A
b. Without revenue sensitive 2) WACOG (Non-Commodity)	\$0.82668 \$0.00000	N/A
a. With revenue sensitive	\$0.12115	N/A
b. Without revenue sensitive	\$0.11765	N/A
B) Proposed for New Rates		
1) WACOG (Commodity Only)	\$0.00000	
a. With revenue sensitive	\$0.59044	Exhibit B, Page 5 and Page 8

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b. Without revenue sensitive	\$0.57277	п
2) WACOG (Non-Commodity)	\$0.00000	
a. With revenue sensitive	\$0.12502	Exhibit B, Page 7
b. Without revenue sensitive	\$0.12128	II
6) Therms Sold	721,775,799	Exhibit B, Page 5

7) Purchasing/ Hedging Strategies Prepare 1-2 page summary of gas cost situation to include resources, purchasing strategy, hedging, and pipeline issues. Within the summary include:

1) Firm Pipeline Capacity		
a) Year-round supply contracts	N/A	Exhibit A, IV.2.b 1-7
b) Winter-only contracts	N/A	п
c) Reliance on Spot Gas/Other Short Term Contracts	N/A	п
d) Other - e.g. Supply area storage	N/A	п
2) Market Area Storage		
a) Underground-owned	N/A	п
b) Underground- contracted	N/A	п
c) LNG-owned	N/A	п
d) LNG-contracted	N/A	n n
3) Other Resources		
a) Recallable Supply	N/A	п
b) City gate Deliveries	N/A	п
c) Owned-Production	N/A	II .
d) Propane/Air	N/A	II .

# NW Natural PGA Filing Guidelines OPUC Order Nos. 09-263 – 09-248, Docket UM 1286

- IV General Information and Forecasting
- 2 Workpapers
- b) Gas Supply Portfolio and Related Transportation
- 1 General Information
- 2 Overview of portfolio planning process
- 3 LDC sales system demand forecasting
- 4 Natural gas price forecasts
- 5 Physical resources for the portfolio
- 6 Financial resources for the portfolio (derivatives and other financial arrangements)
- 7 Storage resources
- 1. General Information.
- 2. Overview of portfolio planning process.

NWN's goal is to assemble resources sufficient to meet expected firm customer requirements under "design" year conditions at the lowest reasonable cost.[1]

To ensure adequate reliability, NWN contracts for firm upstream pipeline capacity, firm off-system storage service and firm recallable gas supply/capacity arrangements with certain on-system customers, in addition to its development of on-system underground and LNG storage.[2]

Upstream pipeline capacity has been contracted with the following objectives in mind: (1) Diversify capacity sources so that disruptions in any one supply region, such as from a pipeline rupture, well freeze-offs, etc., have a minimal impact on NWN; (2) Obtain upstream capacity along the path from NWN's service territory to points generally recognized for their liquidity, such as AECO, to maximize trading opportunities and minimize price volatility; and (3) Find ways to minimize the cost of upstream capacity such as through optimization activities or committing to capacity only on a winter season basis if possible.

Upstream gas supply contracts have been negotiated with the following objectives in mind: (1) Use a diverse group of reliable suppliers as established by their asset positions, past performance and other factors; (2) Try to match our year-round customer requirements to baseload (take-or-pay) annual or multi-year supply contracts to obtain the most favorable pricing; (3) Use winter only (Nov-Mar) term contracts to match our rise in requirements during the heating season; (4) Leave very little to be purchased on the spot market during the winter due to the likely correlation of high requirements with high spot prices; (5) Use a variety of multi-year contract durations to avoid having to re-contract all supplies every year; (6) Use index-related pricing formulas in term contracts to enable easy evaluation of competitive offers and avoid the need for further price negotiation over the term of the contract; (7) Structure the portfolio to provide some opportunity to take advantage when spot prices are favorable; and (8) Avoid over-contracting gas on a take-or-pay basis, which could result in excess gas supplies that must be sold at a loss if

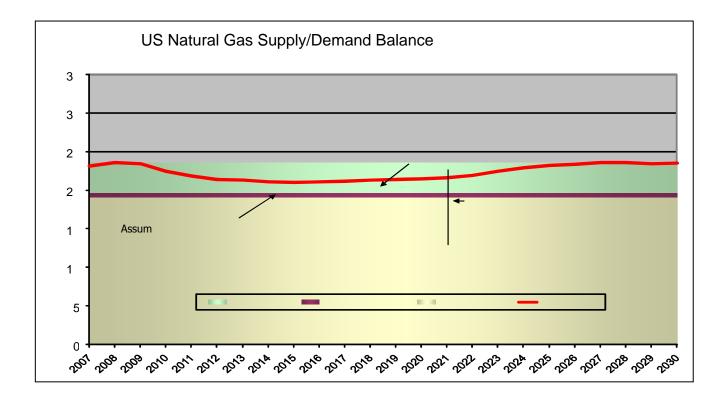
IV.2.b.1-7 Page 11

<sup>[1] &</sup>quot;Design" year is based on the 85% probability of the coldest heating season in the last 20 years. The design year is augmented by the coldest historical coincident system-weighted average day observed during the last 20 years. This coincident system-weighted coldest average day occurred on February 3, 1989. In addition, the days prior to and following the peak day are also included in the design year to model a consecutive three-day cold snap. For the non-heating season (April through October), daily heating degree day values are assumed equal to the 20-year average.

<sup>[2]</sup> Customer requirements increase dramatically during the heating season, so past and present storage developed in or adjacent to NWN's

#### 3. LDC sales system demand forecasting.

Customer growth has not equated to load growth in recent years. Conservation and price elasticity among existing residential and commercial customers have offset customer gains. Due in part to its 5-day curtailment of interruptible sales customers in December 2008, many industrial sales customers have elected to switch to transportation service for the coming year, further suppressing sales demand. While interruptible customers do not affect peak day planning and requirements, their annual sales volumes are accounted for in the company's purchasing plans. As a result, the company's annual sales outlook has declined from prior years on a weather-adjusted basis. This mirrors national trends as shown below.

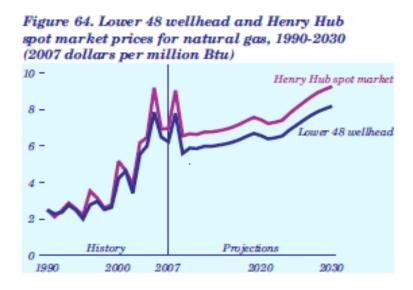


The company's methodology for forecasting annual sales and firm peak day requirements follow the methodology established in its last IRP.

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#### Natural gas price forecasts.

NWN relies on forecasts prepared by the U.S. Energy Information Administration (EIA), the Wood Mackenzie consulting firm as well as NYMEX futures prices to help formulate its gas purchase and hedging strategies. Various other price forecasts and analyses also come to NWN by way of trade publications, consultant visits, oil/gas company presentations and other governmental sources. These provide opportunities to test assumptions and explore alternate viewpoints. As an example, below is the latest long-range natural gas forecast as published earlier this year in EIA's Annual Energy Outlook (AEO).



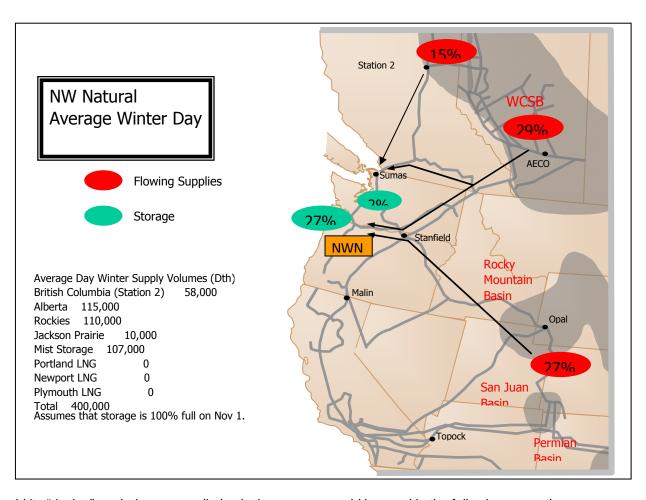
In this case the recent sharp drop in natural gas prices, amid forecasts for rising prices, then leads NWN to formulate hedging strategies around locking in prices on a longer term basis (2 to 3 years out or even longer) for a portion of its expected purchase volumes.

#### 5. Physical resources for the portfolio.

As mentioned above, NWN's physical portfolio on any given day includes gas supplies purchased and transported over the upstream pipeline grid as well as supplies either placed into or withdrawn from five different gas storage facilities. The company also has arrangements with two large on-system customers that allow it to call on their gas supplies on short notice for use by the company ("recall arrangements"). Finally, a very small portion of the company's gas supply (less than 1%) is native gas produced from the Mist Field. This is the company's only gas supply that does not require transportation at one time or another over the interstate pipeline system.

Two changes have occurred in the company's physical supply resources over the past year. First, the company had acquired 5,200 Dth/day of Northwest Pipeline (NWP) capacity from an industrial customer in 1995 under a long-term release. The customer had the option to terminate that release on one year's notice, which was given in July 2008. Hence, that NWP capacity is not available to NWN for any part of the forthcoming PGA period. Second, the company elected last year to recall 10,000 Dth/day of Mist storage capacity effective May 1, 2009. Accordingly, this year's peak day portfolio is slightly larger than last year, while year-round capacity is slightly less.

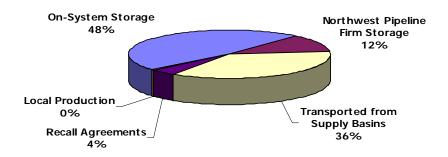
A summary of the company's physical resources is provided in Tables 1 through 5. Using its mix of transportation and storage resources, the company achieves the following profile on a typical winter day.



Should its "design" peak day occur, all physical resources would be used in the following proportions.

#### **Peak Day Firm Supply**

effective November 1, 2009



Total = 9.03 Million Therms

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Regarding physical supply purchasing, NWN has contracted with suppliers for approximately 850,000 therms per day of firm deliveries on a daily basis over the upcoming November 2009 through October 2010 period. This reflects the relatively stable daily component of NWN's demand, including some portion of storage injection requirements in the summer months. This figure has been reduced somewhat from prior periods to allow more purchase flexibility during the summer months. It also reflects the lack of load growth associated with new customer additions and the migration of certain interruptible industrial customers from sales to transportation service. This also meshes well with the slight reduction in year-round NWP capacity available to the company that is mentioned above.

For the Nov09-Mar10 heating season, NWN will have contracts for an additional 1.1 million therms/day of supply under baseload and peaking (swing) agreements. This reflects the higher consumption of customers during those months and is about the same volume as contracted for the prior two winter periods. Buying under term supply contracts lessens the need to rely extensively on the spot market during periods of high demand when competition with mid-continent markets for Rockies and Alberta supplies may be intense. Most of the winter contracted volume (750,000 therms/day) is purchased on a take-or-pay basis. The remaining 350,000 therms/day are made available to NWN on a daily basis in exchange either for payment of a fixed "reservation" charge or for equivalent value in the form of put options during the summer months. These swing contracts have no minimum daily, monthly or seasonal purchase requirement, but they provide additional daily supply flexibility, which is especially valuable since winter weather can fluctuate rapidly between mild and cool temperatures, resulting in rapidly changing customer requirements.

This means between 1.2 and 1.6 million therms/day of upstream capacity could be available during the heating season for spot (one month and shorter duration) purchases as and when needed. Accordingly, on days when all upstream capacity is in use, purchases will be split among three roughly equal categories – year-round contracts, winter term contracts and spot purchases.

### 6. Financial resources for the portfolio (derivatives instruments and other financial arrangements).

NWN "swaps" monthly index prices for fixed prices and other price structures through the use of financial instruments in order to increase price stability across the year. Volumes in storage provide another form of hedging. Overall, NWN's target this year is to hedge the prices of approximately 75% of its expected annual purchase volumes for the upcoming 12-month period commencing in November, the traditional start month for its supply contracts. As storage currently accounts for about 15% of annual purchase quantities, this leaves approximately 60% to be financially hedged. Actual financial hedging targets are set by an executive level oversight committee within the company (the Gas Acquisition Strategy & Policies Committee or GASP) and could change from time-to-time in reaction to market conditions or other factors as the year progresses.

In addition to financial swaps, the company's derivative policies allow the use of financial options (puts and calls) to limit exposure to gas price fluctuations. For example, these instruments can be used in combination in order to "collar" the price of gas for specific purchases.

The company's Gas Supply department performs the actual derivative transactions, while separate individuals, reporting to different executives, oversee the risk management of the hedging program such as approving counterparties and determining credit limits.

#### 7. Storage resources.

NWN relies on five storage facilities to balance its supply portfolio and meet customer requirements. Mist, Portland LNG (also known as Gasco) and Newport LNG are owned and operated by the company. NWN contracts with Northwest Pipeline for service at Jackson Prairie and the Plymouth LNG plant. Storage provides the following benefits to customers:

a) Avoids the need to subscribe to year-round interstate pipeline capacity to meet winter season loads.

- b) Allows more gas purchasing during the non-heating season, when prices are typically lower, instead of heating season periods when prices typically peak.
- c) Provides diversity of supply and gas movement to and through NWN's service territory, improving overall reliability.
- d) Helps balance daily demand with supplies, reducing the potential of imbalance penalties with upstream pipelines.
- e) Provides flexibility to take advantage of daily, monthly and seasonal variations in gas pricing, either directly by NWN or through its optimization arrangements.

Additional benefits attributable to Mist have been created through the development of an interstate storage service starting back in 2001. For example, rather than large "lumpy" resource additions requiring years of preparation, the "pre-build" of interstate storage service provides the ability to time and size incremental Mist capacity to a degree not achievable through typical resource development.

More information on the company's storage resources is provided in Table 3 and the workpapers.

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Table 1

NW Natural
Firm Off-System Gas Supply Contracts
for the 2009/2010 Tracker Year

Supply Location	Duration	Baseload Quantity (Dth/day)	Swing Quantity (Dth/day)	Contract Termination Date
British Columbia (Station 2):		( = 1 = 1)	( - / / /	
BP Canada	Nov-Oct	5,000		10/31/2012
Coral Energy Canada	Nov-Oct	10,000		10/31/2010
Husky Energy Marketing	Nov-Oct	5,000		10/31/2010
Alta Energy Marketing	Nov-Oct	5,000		10/31/2010
Nexen	Nov-Oct	10,000		10/31/2010
Suncor	Nov-Oct	10,000		10/31/2010
Shell	Nov-Oct	5,000		10/31/2010
Alberta:		,		, ,
Sempra Energy Trading	Nov-Oct	10,000		10/31/2014
Suncor	Nov-Mar	5,000		3/31/2010
Husky Energy Marketing	Nov-Mar	5,000		3/31/2010
Sequent	Nov-Mar	,	5,000	3/31/2010
Sequent	Apr-Oct		5,000	10/31/2010
pending	Nov-Mar	30,000	,	3/31/2010
Rockies:				
BP Energy	Nov-Oct	10,000		10/31/2011
Western Gas Resources	Nov-Oct	5,000		10/31/2010
Iberdrola	Nov-Oct	10,000		10/31/2010
BP Energy	Nov-Mar	10,000		3/31/2010
Anadarko	Nov-Mar	5,000		3/31/2010
Enserco Energy	Nov-Mar	5,000		3/31/2010
ONEOK Energy Services	Nov-Mar		10,000	3/31/2010
Kansas Energy	Nov-Mar		5,000	3/31/2010
Kansas Energy	Nov-Mar		5,000	3/31/2010
Shell Energy	Nov-Mar		10,000	3/31/2010
Kansas Energy	Apr-Oct		5,000	10/31/2010
Shell Energy	Apr-Oct		10,000	10/31/2010
pending	Nov-Mar	15,000	•	3/31/2010
Total Off System Firm Contrast Symphy		160,000	55,000	
Total Off-System Firm Contract Supply		100,000	55,000	

#### Notes:

- 1. Contract quantities represent deliveries into upstream pipelines. Accordingly, quantities delivered into NW Natural's system are slightly less due to upstream pipeline fuel consumption.
- 2. Nov-Mar "Swing" contracts represent physical call options at NWN's discretion, while the Apr-Oct "Swing" contracts represent physical put options at the supplier's discretion.

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Table 2

NW Natural
Firm Transportation Capacity
for the 2009/2010 Tracker Year

	Contract Demand	
Pipeline and Contract	(Dth/day)	Termination Date
Northwest Pipeline:		
Sales Conversion	214,889	9/30/2013
1993 Expansion	35,155	9/30/2044
1995 Expansion	102,000	11/30/2011
Occidental (formerly Duke) Cap. Acq.	<u>5,000</u>	10/31/2012
Total NWP Capacity	357,044	
less recallable release to -		
Portland General Electric	<u>(30,000)</u>	10/31/2010
Net NWP Capacity	327,044	
TransCanada's GTN System:		
Sales Conversion	3,616	10/31/2023
1993 Expansion	46,549	10/31/2023
1995 Rationalization	<u>56,000</u>	10/31/2011
Total GTN Capacity	106,165	
TransCanada's BC System:		
1993 Expansion	47,727	10/31/2010
1995 Rationalization	57,417	10/31/2010
Engage Capacity Acquisition	3,708	Upon 1-year notice
2004 Capacity Acquisition	<u>48,669</u>	10/31/2016
Total TCPL-BC Capacity	157,521	
TransCanada's Alberta System:		
1993 Expansion	48,135	10/31/2011
1995 Rationalization	57,909	10/31/2011
Engage Capacity Acquisition	3,739	Upon 1-year notice
2004 Capacity Acquisition	<u>49,138</u>	10/31/2016
Total TCPL-ALberta Capacity	158,921	
WEI T-South Capacity	57,822	10/31/2014
Southern Crossing Pipeline	47,709	10/31/2020

#### Notes:

- 1. All of the above agreements continue year-to-year after termination at NW Natural's sole option except for PGE which requires a mutual agreement to continue.
- 2. The WEI and Southern Crossing contracts are denominated in volumetric units. Accordingly, the above energy units are an approximation.
- 3. The numbers shown for the 1993 Expansion contracts on GTN and TCPL-BC are for the winter season (Oct-Mar) only. Both contracts decline during the summer season (Apr-Sep) to approximately 30,000 Dth/day.

Table 3

NW Natural
Firm Storage Resources

for the 2009/2010 Tracker Year

#### Max. Daily Rate Max. Seasonal Level (Dth/day) **Termination Date** Facility (Dth) Jackson Prairie: SGS-2F 46,030 1,120,288 Upon 1-year notice TF-2 (redelivery service) 32,624 839,046 Upon 1-year notice TF-2 (redelivery service) 13,406 281,242 Upon 1-year notice Plymouth LNG: LS-1 60,100 478,900 Upon 1-year notice TF-2 (redelivery service) 60,100 478,900 Upon 1-year notice Total Firm Off-system Storage: Withdrawal/Vaporization 106,130 1,599,188 106,130 TF-2 Redelivery 1,599,188 Firm On-System Storage Plants: Mist (reserved for core) 250,000 9,420,270 n/a Portland LNG Plant 120,000 600,000 n/a Newport LNG Plant 60,000 1,000,000 n/a Total On-System Storage 430,000 11,020,270 Total Firm Storage Resource 536,130 12,619,458

#### Notes:

- 1. All of the above agreements continue year-to-year after termination at NW Natural's sole option.
- 2. The second Jackson Prairie TF-2 service, for 13,406 Dth/day, is a subordinated firm service. However, on cold weather days, when flows are maximized on NWP's system, service on this agreement should be highly reliable.
- 3. On-system storage peak deliverability based on design criteria.
- 4. Mist numbers shown are the portions reserved for service to utility core customers per the company's Integrated Resource Plan. Additional capacity and deliverability has been contracted under varying terms to off-system customers. The number is approximate as it depends on the heat content of the stored gas, which in turn is dependent on the blended heat content of upstream pipeline gas together with Mist production gas.

# Table 4 NW Natural Other Resources: Recall Agreements, Citygate Deliveries and Mist Production for the 2009/2010 Tracker Year

Туре	Max. Daily Rate (Dth/day)	Max. Annual Recall (days)	Termination Date
PGE Weyerhaeuser 1 Weyerhaeuser 2 Total Recall Resource	30,000 3,000 5,000 38,000	30 40 40	11/1/2010 upon 1 year notice upon 1 year notice
Citygate Deliveries: none			
Mist Production:			
Enerfin Resources	≈1,800	n/a	12/31/2010

#### Notes:

- 1. There are a variety of terms and conditions surrounding the recall rights under each of the above agreements.

  All of the recall arrangements include delivery to NW Natural's system.
- 2. Mist production is currently flowing at roughly the figure shown above. Flows vary as new wells are added and older wells deplete. NW Natural's obligation to take gas from existing wells continues for the life of those wells.

#### Table 5

#### NW Natural Firm Resource Summary for the 2009/2010 Tracker Year

Resource Type	Max. Daily Rate (Dth/day)
Net Deliverability over Upstream Pipeline Capacity Off-System Storage (Jackson Prairie and Plymouth) On-System Storage (Mist, Portland LNG and Newport LNG) Recallable Capacity and Supply Agreements Citygate Deliveries Nominal Mist Production Gas	327,044 106,130 430,000 38,000 - 1,800
Total Firm Resource	902,974

### NW Natural PGA Filing Guidelines

#### OPUC Order Nos. 09-263 - 09-248, Docket UM 1286

- IV General Information and Forecasting
- 2 Workpapers
- b) Gas Supply Portfolio and Related Transportation
- 8 Forecasted annual and peak demand used in the current PGA portfolio, with and without programmatic and non-programmatic demand response, with explanation

NW Natural includes *realized* demand response savings in forecasted annual and peak demand by updating use per customer coefficients prior to the annual PGA filing. The updated use per customer coefficient reflects demand measures actually taken in the previous year. Because our ability to accurately forecast annual demand savings is relatively uncertain, we do not include projected demand measures in our forecasted annual and peak demand.

	2009/2010
Forecast Annual Demand (therms)	721,775,790
Forecast Peak Demand (therms)	3,971,602
Forecast DSM Annual (therms)	2,102,781
Forecast DSM Peak (therms)	11,571
Forecast Annual Demand with Forecast DSM	719,673,010
Forecast Peak Demand with Forecast DSM	3,960,031

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# NW Natural PGA Filing Guidelines OPUC Order Nos. 09-263 – 09-248, Docket UM 1286

- IV General Information and Forecasting
- 2 Workpapers
- b) Gas Supply Portfolio and Related Transportation
- 9 Forecasted annual and peak demand used in the current PGA portfolio, with and without effects from gas supply incentive mechanisms

Our forecasted annual and peak demand is not impacted by gas supply incentive mechanisms.

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### Exhibit B Supporting Materials

#### NWN Advice No. OPUC 09-12

#### **Combined Effects:**

	<u>Page</u>
Calculation of Proposed Rates – Summary PGA Effects on Average Bill by Rate Schedule PGA Effects on Revenue Basis for Revenue Related Costs	1 2 3 4
Commodity and Non-Commodity Costs:	
Summary of Total Commodity Cost Summary of Total Demand Charges Derivation of Demand Increments Calculation of Winter Sales WACOG – Oregon Derivation of Seasonalized Fixed Charges	5 6 7 8 9
Northwest Pipeline Corporation; Fourth Revised Sheet No. 5 Northwest Pipeline Corporation; Third Revised Sheet No. 7 Northwest Pipeline Corporation; First Revised Sheet No. 8	10 11 12
Temporary and Permanent Adjustments Effects:	
Elasticity Adjustment Summary of Permanent Increments Summary of Temporary Increments Bare Steel, Geohazard and Integrity Management Programs Cost of Service Summary	13 14 15 16
Estimated Revenue Effects for the 12 Months Beginning November 1, 2009	17

	-	1/1/2009 Billing Rates	Net change WACOG	Net change Demand [1]	Proposed Rates PGA Only [1]	Net change Permanent Increments	Net change Temporary Increments	Elasticity Adjustment	Pre-1981 Reg Assets Adjustment	Storage Recall Adjustment	Proposed 11/1/2009 Rates [1]
Schedule	Block	Α	В	С	D=A+B+C <b>D</b>	Е	F	G	Н	1	J
1R		1.45725	(0.26082)	0.00387	1.20030	0.00192	0.00609	(0.01277)	0.01140	0.00028	1.20722
1C		1.41578	(0.26082)	0.00387	1.15883	0.00091	(0.00662)	(0.00595)	0.00770	0.00018	1.15505
2R		1.39384	(0.26082)	0.00387	1.13689	0.00199	0.00642	(0.01277)	0.00775	0.00019	1.14047
3C Firm Sales		1.28982	(0.26082)	0.00387	1.03287	0.00154	(0.00640)	(0.00595)	0.00546	0.00013	1.02765
Intentionally blank			` '				` '	` '			
31 Firm Sales		1.26989	(0.26082)	0.00387	1.01294	0.00144	(0.02555)	0.00000	0.00463	0.00011	0.99357
Intentionally blank											
19	1st mantle	23.33	(4.98)	0.08	18.43	0.01	(0.46)	(0.24)	0.00	0.00	17.74
19	add'l mtls	22.72	(4.98)	0.08	17.82	0.01	(0.46)	(0.24)	0.00	0.00	17.13
31C Firm Sales	Block 1	1.00914	(0.26082)		0.74832	0.00128	(0.00624)	(0.00595)	0.00386	0.00009	0.74136
	Block 2	0.99340	(0.26082)		0.73258	0.00124	(0.00622)	(0.00595)	0.00353	0.00009	0.72527
31C Firm Trans	Block 1	0.17195	0.00000		0.17195	0.00125	0.01774	(0.00595)	0.00329	0.00000	0.18828
	Block 2	0.15616	0.00000		0.15616	0.00121	0.01777	(0.00595)	0.00302	0.00000	0.17221
31C Interr Sales	Block 1	1.03105	(0.26082)		0.77023	0.00112	(0.02120)	(0.00595)	0.00270	0.00007	0.74697
	Block 2	1.01520	(0.26082)		0.75438	0.00110	(0.02120)	(0.00595)	0.00247	0.00006	0.73086
311 Firm Sales	Block 1	1.00149	(0.26082)		0.74067	0.00133	(0.02544)	0.00000	0.00370	0.00009	0.72035
	Block 2	0.98572	(0.26082)		0.72490	0.00118	(0.02540)	0.00000	0.00334	0.00008	0.70410
31I Firm Trans	Block 1	0.16378	0.00000		0.16378	0.00081	(0.00035)	0.00000	0.00322	0.00000	0.16746
	Block 2	0.14800	0.00000		0.14800	0.00072	(0.00031)	0.00000	0.00291	0.00000	0.15132
311 Interr Sales	Block 1	1.02147	(0.26082)		0.76065	0.12519	(0.04626)	0.00000	0.09435	0.00230	0.93623
	Block 2	1.00578	(0.26082)		0.74496	0.11313	(0.04570)	0.00000	0.08526	0.00208	0.89973
32C Firm Sales	Block 1	0.93532	(0.26082)		0.67450	0.00027	(0.02411)	0.00000	0.00199	0.00005	0.65270
	Block 2	0.92067	(0.26082)		0.65985	0.00024	(0.02409)	0.00000	0.00169	0.00004	0.63773
	Block 3	0.89628	(0.26082)		0.63546	0.00016	(0.02404)	0.00000	0.00119	0.00003	0.61280
	Block 4	0.87188	(0.26082)		0.61106	0.00009	(0.02399)	0.00000	0.00070	0.00002	0.58788
	Block 5	0.85724	(0.26082)		0.59642	0.00006	(0.02397)	0.00000	0.00040	0.00001	0.57292
	Block 6	0.84750	(0.26082)		0.58668	0.00003	(0.02395)	0.00000	0.00020	0.00000	0.56296
321 Firm Sales	Block 1	0.93598	(0.26082)		0.67516	0.00039	(0.02529)	0.00000	0.00215	0.00005	0.65246
	Block 2	0.92125	(0.26082)		0.66043	0.00034	(0.02527)	0.00000	0.00183	0.00004	0.63737
	Block 3	0.89672	(0.26082)		0.63590	0.00023	(0.02521)	0.00000	0.00129	0.00003	0.61224
	Block 4	0.87216	(0.26082)		0.61134	0.00016	(0.02518)	0.00000	0.00075	0.00002	0.58709
	Block 5	0.85747	(0.26082)		0.59665	0.00006	(0.02515)	0.00000	0.00043	0.00001	0.57200
	Block 6	0.84765	(0.26082)		0.58683	0.00004	(0.02513)	0.00000	0.00022	0.00001	0.56197
32 Firm Trans	Block 1	0.09763	0.00000		0.09763	0.00021	(0.00021)	0.00000	0.00162	0.00000	0.09925
	Block 2	0.08299	0.00000		0.08299	0.00018	(0.00020)	0.00000	0.00137	0.00000	0.08434
	Block 3	0.05861	0.00000		0.05861	0.00013	(0.00015)	0.00000	0.00097	0.00000	0.05956
	Block 4	0.03423	0.00000		0.03423	0.00008	(0.00012)	0.00000	0.00057	0.00000	0.03476
	Block 5	0.01961	0.00000		0.01961	0.00004	(0.00009)	0.00000	0.00032	0.00000	0.01988
22 1-1 2 1	Block 6	0.00986	0.00000		0.00986	0.00003	(0.00007)	0.00000	0.00016	0.00000	0.00998
32 Interr Sales	Block 1	0.95612	(0.26082)		0.69530	0.00048	(0.04034)	0.00000	0.00190	0.00005	0.65739
	Block 2	0.94146	(0.26082)		0.68064	0.00041	(0.04033)	0.00000	0.00162	0.00004	0.64238
	Block 3	0.91701	(0.26082)		0.65619	0.00030	(0.04027)	0.00000	0.00114	0.00003	0.61739
	Block 4	0.89258	(0.26082)		0.63176	0.00018	(0.04024)	0.00000	0.00067	0.00002	0.59239
	Block 5	0.87792	(0.26082)		0.61710	0.00009	(0.04021)	0.00000	0.00038	0.00001	0.57737
00 I I T	Block 6	0.86815	(0.26082)		0.60733	0.00005	(0.04019)	0.00000	0.00019	0.00000	0.56738
32 Interr Trans	Block 1	0.09789	0.00000		0.09789	0.00030	(0.00020)	0.00000	0.00158	0.00000	0.09957
	Block 2	0.08324	0.00000		0.08324	0.00024	(0.00020)	0.00000	0.00135	0.00000	0.08463
	Block 3	0.05879	0.00000		0.05879	0.00017	(0.00015)	0.00000	0.00095	0.00000	0.05976
	Block 4	0.03434	0.00000		0.03434	0.00010	(0.00012)	0.00000	0.00055	0.00000	0.03487
	Block 5	0.01966	0.00000		0.01966	0.00006	(0.00009)	0.00000	0.00032	0.00000	0.01995
	Block 6	0.00989	0.00000		0.00989	0.00003	(0.00007)	0.00000	0.00016	0.00000	0.01001
Intentionally blank		0.00===	0		0		(0	0	0.000	0.0000	0.00000
33		0.00529	0.00000	0.00000	0.00529	0.00001	(0.00001)	0.00000	0.00009	0.00000	0.00538

Col C - Col B Col E - Col D Column O Column P

Column Q

Rates in detail

Col F - Col B

Column G+H-C-D

11] For convenience of presentation, demand charges for Rate Schedules 31 and 32 are omitted

ffects on Avera	ge Bill by	Rate Schedule							Cal	culation of Effe	ect on Custome	r Average Bill	by Rate Sched	lule [1]		
		Oregon PGA Normalized Volumes page, Column D	Therms in Block	Normal Therms Monthly Average use	Minimum Monthly Charge	1/1/2009 Billing Rates	1/1/2009 Current Average Bill	Proposed 11/1/2009 PGA Only Rates	Proposed 11/1/2009 PGA Only Average Bill	Proposed 11/1/2009 PGA Only % Bill Change	Proposed 11/1/2009 Temp & Base Rates	Proposed 11/1/2009 Temp & Base Average Bill	Proposed 11/1/2009 Temp & Base % Bill Change	Proposed 11/1/2009 Total Rates	Proposed 11/1/2009 Total Average Bill	Proposed 11/1/2009 Total % Bill Chang
Schedule	Block	- A	В	c	D	F	F=D+(C * E)	G	H=D+(C * G)	I =(H - F)/F		K=D+(C * J)	L =(K - F)/F	м	K=D+(C * M) N	O = (N - F)/F
1R	DIULK	726,368	N/A	17.0	5.00	1.45725	29.77	1.20030	25.41	-14.6%	1.46417	29.89	0.4%	1.20722	25.52	-14.3
1C		167,659	N/A	77.0	5.00	1.41578	114.02	1.15883	94.23	-17.4%	1.41200	113.72	-0.3%	1.15505	93.94	-17.6
2R		355,349,088	N/A	55.0	6.00	1.39384	82.66	1.13689	68.53	-17.1%	1.39742	82.86	0.2%	1.14047	68.73	-16.9
3C Firm Sales		152,067,450	N/A	230.0	8.00	1.28982	304.66	1.03287	245.56	-19.4%	1.28460	303.46	-0.4%	1.02765	244.36	-19.8
Intentionally blank 31 Firm Sales Intentionally blank		2,174,044	N/A	656.0	8.00	1.26989	841.05	1.01294	672.49	-20.0%	1.25052	828.34	-1.5%	0.99357	659.78	-21.6
19	1st mantle	18,760	N/A	98.0	22.04	23.33	23.33	18.43	18.43	-21.0%	22.64	22.64	-3.0%	17.74	17.74	-24.0
19	add'l mtls	0	N/A	0.0	21.43	22.72	22.72	17.82	17.82	-21.6%	22.03	22.03	-3.0%	17.13	17.13	-24.
31C Firm Sales	Block 1	24,057,306	2,000	4,162.0	325.00	1.00914	2,343.28	0.74832	1,821.64		1.00218	2,329.36		0.74136	1,807.72	
	Block 2	36,368,804	all additional			0.99340	2,147.73	0.73258	1,583.84		0.98609	2,131.93		0.72527	1,568.03	l
210 Firm Trans	Total		2.000	0.0	325.00	0.17195	4,491.01	0.47405	3,405.48	-24.2%	0.10000	4,461.29	-0.7%	0.40000	3,375.75	-24.
31C Firm Trans	Block 1 Block 2	0	2,000 all additional	0.0	325.00	0.17195	325.00	0.17195 0.15616	325.00		0.18828 0.17221	325.00		0.18828 0.17221	325.00	
	Total	U	ali additional			0.13010	325.00	0.13010	325.00	0.0%	0.17221	325.00	0.0%	0.17221	325.00	0.
31C Interr Sales	Block 1	223.579	2.000	0.0	325.00	1.03105	325.00	0.77023	325.00	0.070	1.00779	325.00	0.070	0.74697	325.00	0.
	Block 2	812,974	all additional			1.01520		0.75438			0.99168			0.73086		
	Total						325.00		325.00	0.0%		325.00	0.0%		325.00	0.
311 Firm Sales	Block 1	3,013,400	2,000	3,699.0	325.00	1.00149	2,327.98	0.74067	1,806.34		0.98117	2,287.34		0.72035	1,765.70	
	Block 2	8,129,370	all additional			0.98572	1,674.74	0.72490	1,231.61		0.96492	1,639.40		0.70410	1,196.27	
041 E: T	Total						4,002.72		3,037.95	-24.1%		3,926.74	-1.9%		2,961.97	-26.
31I Firm Trans	Block 1 Block 2	46,557 159,947	2,000 all additional	5,736.0	325.00	0.16378 0.14800	652.56 552.93	0.16378 0.14800	652.56 552.93		0.16746 0.15132	659.92 565.33		0.16746 0.15132	659.92 565.33	
	Total	137,747	ali auditioriai			0.14000	1,205.49	0.14000	1,205.49	0.0%	0.13132	1,225.25	1.6%	0.13132	1,225.25	1.
311 Interr Sales	Block 1	6,751	2,000	53.0	325.00	1.02147	379.14	0.76065	365.31	0.070	1.19705	388.44	1.070	0.93623	374.62	
	Block 2	5,979	all additional			1.00578		0.74496			1.16055			0.89973		
	Total						379.14		365.31	-3.6%		388.44	2.5%		374.62	-1.
32C Firm Sales	Block 1	4,257,903	10,000	18,849.0	675.00	0.93532	10,028.20	0.67450	7,420.00		0.91352	9,810.20		0.65270	7,202.00	
	Block 2	4,488,591	20,000			0.92067	8,147.01	0.65985	5,839.01		0.89855	7,951.27		0.63773	5,643.27	
	Block 3	1,469,604	20,000			0.89628		0.63546			0.87362			0.61280		
	Block 4	188,695	100,000			0.87188		0.61106			0.84870			0.58788		
	Block 5 Block 6	0	600,000 all additional			0.85724 0.84750		0.59642 0.58668			0.83374 0.82378			0.57292 0.56296		
	Total	U	ali additional			0.64750	18,175.21	0.36006	13,259.01	-27.0%	0.02376	17,761.47	-2.3%	0.56296	12,845.27	-29.
321 Firm Sales	Block 1	2,502,255	10,000	16,204.0	675.00	0.93598	10,034.80	0.67516	7,426.60	-27.070	0.91328	9,807.80	-2.370	0.65246	7,199.60	-27.
	Block 2	3,460,532	20,000	,		0.92125	5,715.44	0.66043	4,097.31		0.89819	5,572.37		0.63737	3,954.24	
	Block 3	1,304,655	20,000			0.89672		0.63590			0.87306			0.61224		
	Block 4	899,465	100,000			0.87216		0.61134			0.84791			0.58709		
	Block 5	1	600,000			0.85747		0.59665			0.83282			0.57200		
	Block 6	0	all additional			0.84765		0.58683			0.82279			0.56197		
32 Firm Trans	Total Block 1	5,662,307	10,000	92,499.0	675.00	0.09763	15,750.24 1.651.30	0.09763	11,523.91 1,651.30	-26.8%	0.09925	15,380.17 1.667.50	-2.3%	0.09925	11,153.84 1.667.50	-29.
32 FIRM Trans	Block 1	8,929,949	20,000	92,499.0	6/5.00	0.09763	1,651.30	0.09763	1,651.30		0.09925	1,686.80		0.09925	1,686.80	
	Block 3	5,934,416	20,000			0.05861	1,172.20	0.05861	1,172.20		0.05956	1,191.20		0.05956	1,191.20	
	Block 4	17,922,013	100,000			0.03423	1,454.74	0.03423	1,454.74		0.03476	1,477.27		0.03476	1,477.27	
	Block 5	17,050,698	600,000			0.01961	.,	0.01961	.,		0.01988	.,		0.01988	.,	
	Block 6	0	all additional			0.00986		0.00986			0.00998			0.00998		
	Total						5,938.04		5,938.04	0.0%		6,022.77	1.4%		6,022.77	1.
32 Interr Sales	Block 1	10,429,376	10,000	29,740.0	675.00	0.95612	10,236.20	0.69530	7,628.00		0.91821	9,857.10		0.65739	7,248.90	1
	Block 2	13,880,474	20,000			0.94146	18,829.20	0.68064	13,612.80		0.90320	17,829.17		0.64238	12,680.58	1
	Block 3 Block 4	7,538,869 12,407,037	20,000			0.91701 0.89258	(238.42)	0.65619	(170.61)		0.87821 0.85321			0.61739 0.59239		1
	Block 5	4,994,306	600,000			0.87792		0.61710			0.83819			0.59239		
	Block 6	4,774,300	all additional			0.86815		0.60733			0.82820			0.56738		1
	Total	_					28,826.98		21,070.19	-26.9%		27,686.27	-3.9%		19,929.48	-30
32 Interr Trans	Block 1	6,243,567	10,000	201,583.0	675.00	0.09789	1,653.90	0.09789	1,653.90		0.09957	1,670.70		0.09957	1,670.70	1
	Block 2	10,718,721	20,000			0.08324	1,664.80	0.08324	1,664.80		0.08463	1,692.60		0.08463	1,692.60	1
	Block 3	7,690,383	20,000			0.05879	1,175.80	0.05879	1,175.80		0.05976	1,195.20		0.05976	1,195.20	1
	Block 4	22,705,048	100,000			0.03434	3,434.00	0.03434	3,434.00		0.03487	3,487.00		0.03487	3,487.00	1
	Block 5	48,168,825	600,000			0.01966	1,014.12	0.01966	1,014.12		0.01995	1,029.08		0.01995	1,029.08	
	Block 6 Total	76,222,375	all additional			0.00989	8,942.62	0.00989	8,942.62	0.0%	0.01001	9,074.58	1.5%	0.01001	9,074.58	1
Intentionally blank	ivial						0,742.02		0,742.02	0.078		7,074.38	1.376		7,074.36	<u>'</u>
33		0	N/A	0.0	38,000.00	0.00529	38,000.00	0.00529	38,000.00	0.0%	0.00538	38,000.00	0.0%	0.00538	38,000.00	0
Totals		878,398,101 0														
Sources: Direct Inputs			per Tariff		per Tariff											
			por rumi		por rural											
ates in summary						Column A		Column D			Cols A+E+F+G+H+I			Column J		

<sup>72 [1]</sup> For convenience of presentation, the cent per therm demand charge is used, rather than the available MDDV demand option for Rate Schedules 31 and 32

#### NW Natural Rates & Regulatory Affairs 2009-2010 PGA Filing - Oregon PGA Effects on Revenue

PGAI	Effects on Revenue	Excluding	Including	
1 2	Purchased Gas Cost Adjustment (PGA)	Revenue Sensitve <u>Amount</u>	Revenue Sensitve Amount	<u>Reference</u>
3 4	Gas Cost Change	(\$165,281,012)	(\$170,378,744)	NWN 2009-10 PGA gas cost file August filing.xls
5 6	Capacity Cost Change	(1,128,736)	(1,163,549)	NWN 2009-10 PGA gas cost file August filing.xls
7 8	Total PGA Change	(166,409,748)	(171,542,293)	
9 10	Temporary Rate Adjustments			
11 12	Proposed Temporary Increments	(11,661,120)	(12,020,782)	NWN 2009-10 Oregon PGA rate development Refiling
13 14	Removal of Current Temporary Increments	(9,899,887)	(10,194,193)	2008-2009 PGA filing + January Rate Change File
15 16	Total Net Temporary Rate Adjustment	(1,761,233)	(1,826,589)	
17 18	Base Rate Adjustments			
19 20	Proposed Safety Program Costs	7,496,000	7,727,000	NWN/B Page of
21 22 23	Removal of Current Safety Program Costs	(6,728,000)	(6,936,000)	2008-2009 PGA filing
23 24 25	Coos Bay Adjustment	0	0	Coos Bay increment is complete
26 27	Removal of Current Coos Bay Adjustment	141,421	145,783	2008-2009 PGA filing
28 29	Storage Recall for Core	92,958	95,825	Storage Recall workpaper
30 31	Pre-1981 Assets	3,954,000	4,076,000	Order 08-578
32 33	Price Elasticity Adjustment	(5,712,768)	(5,888,966)	NWN 2009-10 Oregon PGA rate development file
34 35	Total Net Base Rate Adjustment	(756,389)	(780,358)	
36 37 38 39	TOTAL OF ALL COMPONENTS OF ALL RATE CHANGES	(\$168,927,370)	(\$174,149,240)	
40 41	2008 Oregon Earnings Test Normalized Total Revenues	\$877,514,000	\$877,514,000	
42 43	Affect of this filling, as a percentage change (line 31÷ line 35)	-19.25%	-19.85%	

#### NW Natural Rates and Regulatory Affairs 2009-2010 PGA Filing - OREGON Basis for Revenue Related Costs

17

		Twelve Months	
1		Ended 06/30/09	
2			
3	Total Billed Gas Sales Revenues	890,192,604	
4	Total Oregon Revenues	922,390,509	
5			
6	Regulatory Commission Fees [1]	2,305,976	0.250% Statutory rate
7	City License and Franchise Fees	21,439,393	2.324% Line 7 ÷ Line 4
8	Net Uncollectible Expense	3,852,973	0.418% Line 8 ÷ Line 4
9			
10	Total	27,598,342	2.992% Sum lines 8-9
11		<del></del>	
12			
13	Note:		
14	[1] Dollar figure is set at statutory level	of 0.25% times Total Oregon Re	venues (line 4)
15			
16			

#### NW Natural 2009-2010 PGA - SYSTEM: August Filing Summary of Total Commodity Cost

#### SYSTEM COSTS

1	(a) (b)	(c) November	(d) December	(e) January	(f) February	(g) March	(h) April	(i) Mav	(j) June	(k) July	(I) August	(m) September	(n) October	(o) TOTAL		
2		1	2	Junuary 2	1 Columny	IVIGI CIT	April 4	ividy	Julic	July	August 10	Jeptember 11	12	TOTAL		
4	COSTS		-		4	3		,	· ·	,	10		12			
5	Commodity Cost from Supply	\$39,386,600	\$50.149.157	\$39,661,174	\$32,766,878	\$36,582,328	\$31.547.457	\$22,273,762	\$16,404,782	\$13,832,066	\$13,982,188	\$15,854,423	\$30,506,233	\$342,947,047		
6	tab commodity cost from supply, column ao, lines 93-105	407,000,000	000,117,107	407,001,171	402,700,070	400,002,020	401,017,107	\$22,270,702	\$10,101,70 <u>2</u>	ψ10/00Z/000	\$10,702,100	\$10,00 I, IZO	400,000,200	4012/717/017		
7	Volumetric Pipeline Chqs	\$255,999	\$309,273	\$238,113	\$201,558	\$209,683	\$183,529	\$125,772	\$86,876	\$71,096	\$71,273	\$80,756	\$164,124	\$1,998,052		
8	tab commodity cost from vol pipe, column e, line 78-90															
9	Commodity Cost from Storage	\$2,351,553	\$12,290,333	\$24,309,040	\$19,001,957	\$9,373,717	\$235,012	\$152,353	\$147,438	\$152,353	\$152,353	\$147,438	\$155,680	\$68,469,227		
10	tab Commodity Cost from Storage, column h, line 61-73															
11	Total Commodity Cost	\$41,994,152	\$62,748,763	\$64,208,327	\$51,970,393	\$46,165,728	\$31,965,998	\$22,551,887	\$16,639,096	\$14,055,515	\$14,205,814	\$16,082,617	\$30,826,037	\$413,414,326		
12																
13	VOLUMES															
14	Pipeline Commodity at Receipt Points	79,765,754	95,109,495	71,668,333	58,933,104	66,185,005	59,019,847	40,709,432	28,257,611	23,139,496	23,196,926	26,285,812	53,021,328	625,292,143		
15	Pipeline Fuel Use	2,104,703	2,480,847	1,948,847	1,583,675	1,778,128	1,511,962	1,068,230	755,440	670,278	671,320	719,278	1,378,423	16,671,131		
16	Pipeline Gas Arriving at City Gate	77,661,051	92,628,648	69,719,486	57,349,429	64,406,877	57,507,885	39,641,202	27,502,171	22,469,218	22,525,606	25,566,534	51,642,905	608,621,012		
17	Storage Gas Deliveries	4,699,391	19,644,010	40,596,042	32,991,221	15,582,522	443,955	217,000	210,000	217,000	217,000	210,000	225,889	115,254,030		
18	Total Gas At Citygate (Storage and Pipeline)	82,360,442	112,272,658	110,315,528	90,340,650	79,989,399	57,951,840	39,858,202	27,712,171	22,686,218	22,742,606	25,776,534	51,868,794	723,875,042		
19																
20	Unaccounted for Gas	267,866	319,492	240,474	197,811	222,149	198,352	136,729	94,862	77,504	77,696	88,182	178,126	2,099,243	0.290%	0.000%
21																
22	Load Served	82,092,576	111,953,166	110,075,054	90,142,839	79,767,250	57,753,488	39,721,473	27,617,309	22,608,714	22,664,910	25,688,352	51,690,668	721,775,799		
23														0		
24	Annual Sales WACOG	\$0.51155	\$0.56049	\$0.58331	\$0.57653	\$0.57876	\$0.55349	\$0.56775	\$0.60249	\$0.62169	\$0.62678	\$0.62607	\$0.59636	\$0.57277		
25																
OR	OREGON Sales WACOG with Revenue Sensitive	\$0.52733	\$0.57778	\$0.60130	\$0.59431	\$0.59661	\$0.57056	\$0.58526	\$0.62107	\$0.64086	\$0.64611	\$0.64538	\$0.61475	\$0.59044		
WA	WASHINGTON Sales WACOG with Revenue Sensitive	\$0.53558	\$0.58682	\$0.61071	\$0.60361	\$0.60595	\$0.57949	\$0.59442	\$0.63079	\$0.65090	\$0.65622	\$0.65548	\$0.62438	\$0.59968		

#### NW Natural 2009-2010 PGA - SYSTEM: August Filing Summary of Total Demand Charges

#### SYSTEM COSTS

1 2	(a)	(b)	(c) November	(d) December	(e) January	(f) February	(g) March	(h) April	(i) May	(j) June	(k) July	(I) August	(m) September	(n) October	(o) TOTAL
3 4	Transport charges by tran	nsporter:	30	31	31	28	31	30	31	30	31	31	30	31	365
5			40.000.400	******	******	40.747.750	******	40.000.400	4444.075	40.000.400	******	4444.075	40.000.400	*****	***
6	Northwest Pipeline		\$3,982,129	\$4,114,865	\$4,114,865	\$3,716,653	\$4,114,865	\$3,982,129	\$4,114,865	\$3,982,129	\$4,114,865	\$4,114,865	\$3,982,129	\$4,114,865	\$48,449,224
8	GTN		517,197	534,438	534,438	482,717	534,438	435,253	449,762	435,253	449,762	449,762	435,253	534,438	5,792,711
9 10	TCPL BC		239,195	239,195	239,195	239,195	239,195	214,070	214,070	214,070	214,070	214,070	214,070	239,195	2,719,590
11 12	NOVA		745,767	745,767	745,767	745,767	745,767	745,767	745,767	745,767	745,767	745,767	745,767	745,767	8,949,204
13 14	Terasen (Southern Crossing)		576,541	595,760	595,760	538,105	595,760	576,541	595,760	576,541	595,760	595,760	576,541	595,760	7,014,589
15 16	Spectra (Westcoast)		699,229	702,090	702,090	693,505	702,090	699,229	702,090	699,229	702,090	702,090	699,229	702,090	8,405,051
17 18	KB Pipeline		18,688	18,688	18,688	18,688	18,688	18,688	18,688	18,688	18,688	18,688	18,688	18,688	224,256
19	T. 10 1 D		*/ 770 7//	*/ 050 000	*/ 050 000	*/ 101 /00	*/ 050 000	*/ /74 /77	*/ 044 000	4/ /74 /77	*/ 044 000	*/ 0/1 000	*/ /74 /77	*/ 050 000	404 554 (05
20	Total System Demand		\$6,778,746	\$6,950,803	\$6,950,803	\$6,434,630	\$6,950,803	\$6,671,677	\$6,841,002	\$6,671,677	\$6,841,002	\$6,841,002	\$6,671,677	\$6,950,803	\$81,554,625
21 22															

### **Oregon Derivation of Demand Increments**

1 2			Without Revenue Sensitive	WITH Revenue Sensitive
3	(a)	(b)	(c)	(d)
4	System Demand	(b)	\$81,554,625	(d)
5	Oregon Allocation Factor 1/		90.21%	
6	Oregon Demand		\$73,570,427	
7	Crogon Bomana		Ψ10,010, 121	
8	Oregon Firm Sales Forecasted Normal Vo	lumes	600,643,949	
9	Oregon Interruptible Sales Forecasted Nor		50,299,345	
10			,,-	
11				
12	Proposed Firm Demand Per Therm 2/		\$0.12128	\$0.12502
13	Proposed Interruptible Demand 2/		\$0.01442	\$0.01486
14	Proposed MDDV Demand Charge		\$1.81	\$1.87
15	•			
16	Current Firm Demand Per Therm		\$0.11765	\$0.12115
17	Current Interruptible Demand		\$0.01399	\$0.01441
18	Current MDDV Demand Charge		\$1.76	\$1.81
19				
20	Percent Change in Firm Demand		3.09%	
21				
22				
23	1/Allocation Factor: Actual 12 months ende	ed 06/30/09 firm sal	es volumes:	
24		<u>Washington</u>	<u>Oregon</u>	<u>System</u>
25	Residential	45,029,237	362,678,428	407,707,665
26	Commercial	20,837,936	232,002,769	252,840,705
27	Industrial	2,963,408	39,543,978	42,507,386
28	Total	68,830,581	634,225,175	703,055,756
29		9.79%	90.21%	100.00%
30				
31	2/Calculation of Proposed Demand Rates:			
32				
33	Demand change factor		1.031	
34	F' D 1(0) 0 ± 0 05		<b>A</b> 0.40400	<b>#</b> =0.04=.000
35	Firm Demand (line 8 * line 35)		\$0.12128	\$72,845,038
36	Interruptible Demand (line 9 * line 36)		\$0.01442	\$725,389
37				\$73,570,427
38				\$0

### NW Natural 2009-2010 PGA - SYSTEM: August Filing Calculation of Winter WACOG

1	Forecast price for AECO gas	S:		
2		AECO/NIT		
3 4		AECO/NIT	_	
4 5	November	\$0.41677		
6	December	\$0.48498		
7	January	\$0.40476 \$0.51505		
8	February	\$0.51838		
9	March	\$0.51234		
-	April	\$0.51234 \$0.49122		
10	•	\$0.49122 \$0.49592		
11 12	May June	\$0.49592 \$0.50579		
		\$0.50579 \$0.51755		
13	July			
14	August	\$0.52657		
15	September	\$0.53247		
16	October	\$0.54339		
17				
18	A		<b>#0.40050</b>	
19	Average price, November-M	arcn	\$0.48950	average lines 5-9
20			<b>4</b> 0.50504	
21	Annual average price, Nover	mber-October	\$0.50504	average lines 5-16
22	5		0.0000	
23	Ratio of winter to annual		0.96923	line 19 ÷ line 21
24			1489 B	14/17/11/5
25			Without Rev	WITH Rev
26			<u>Sensitive</u>	<u>Sensitive</u>
OR	Oregon Annual WACOG		\$0.57277	\$0.59044
OR	Oregon Winter WACOG		\$0.55515	\$0.57227
			line 23 * 0.57277	
WA	Washington Annual WACOG		\$0.57277	\$0.59968
WA	Washington Winter WACOG		\$0.55515	\$0.58123
			line 23 * 0.57277	

NW Natural 2009-2010 PGA - OREGON Derivation of Oregon Seasonalized Fixed Charges

1 2 3			Normalized Residential Volumes	Normalized Commercial Volumes	Firm Industrial Volumes	Interruptible Industrial Volumes	Total		Firm Demand Increment Eff. 11/01/09	Interr. Demand Increment Eff. 11/01/09		Seasonalized Fixed Charges
4	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(I)
5	'											
6	November	2009										\$8,395,499
7												
8	December	2009	60,257,634	34,187,004	2,241,113	4,365,649	101,051,400		\$0.12502	\$0.01486		\$11,788,859
9	January	2010	58,776,677	33,395,753	2,322,859	4,879,644	99,374,933		\$0.12502	\$0.01486		\$11,530,612
10	February	2010	47,826,909	27,521,856	2,258,932	3,799,622	81,407,319		\$0.12502	\$0.01486		\$9,466,937
11	March	2010	40,269,247	24,039,410	1,992,124	5,931,645	72,232,426		\$0.12502	\$0.01486		\$8,126,382
12	April	2010	27,920,025	17,690,288	1,943,223	4,690,428	52,243,964		\$0.12502	\$0.01486		\$5,834,847
13	May	2010	17,668,739	12,604,553	1,626,778	3,946,234	35,846,304		\$0.12502	\$0.01486		\$3,925,687
14	June	2010	10,815,310	8,974,715	1,443,027	3,543,614	24,776,666		\$0.12502	\$0.01486		\$2,626,200
15	July	2010	7,961,557	7,577,884	1,313,885	3,363,111	20,216,437		\$0.12502	\$0.01486		\$2,092,431
16	August	2010	7,880,156	7,536,292	1,367,799	3,476,159	20,260,406		\$0.12502	\$0.01486		\$2,085,682
17	September	2010	9,511,021	8,289,484	1,492,550	3,639,444	22,932,499		\$0.12502	\$0.01486		\$2,392,301
18	October	2010	24,562,011	16,106,435	1,641,342	4,189,708	46,499,496		\$0.12502	\$0.01486		\$5,191,674
19	November	2010	42,644,930	25,142,338	1,840,091	4,474,086	74,101,445		\$0.12502	\$0.01486		\$8,508,815
20												
21												
22		-	356,094,216	223,066,012	21,483,723	50,299,344	650,943,295					\$73,570,427
		=	ok	ok	ok	ok						

## STATEMENT OF RATES Effective Rates Applicable to Rate Schedules TF-1, TF-2, TI-1, TFL-1 and TIL-1 (Dollars per Dth)

	В	ase			ently ctive
Rate Schedule and	Tarif	f Rate		Tariff	Rate(3)
Type of Rate		Maximum	ACA(2)		
Rate Schedule TF-1 (4)(5)					
Reservation					
(Large Customer)					
System-Wide	.00000	.37984	-	.00000	.37984
15 Year Evergreen Exp.	.00000	.38101	-	.00000	.38101
25 Year Evergreen Exp.	.00000	.36445	-	.00000	.36445
Volumetric					
(Large Customer)					
System-Wide	.00756		.00190	.00946	.03190
15 Year Evergreen Exp.					.00559
25 Year Evergreen Exp.	00369	.00369	.00190	.00559	.00559
(Small Customer) (6)	.00756	.67209	.00190	.00946	.67399
Scheduled Overrun	.00756	.40984	.00190	.00946	.41174
ate Schedule TF-2 (4)(5)					
Reservation	.00000	.37984	-	.00000	.37984
Volumetric	.00756		_		.03000
Scheduled Daily Overrun		.40984	_		.40984
Annual Overrun	.00756		-		.40984
ate Schedule TI-1					
Volumetric (7)	.00756	.40984	.00190	.00946	.41174
Scheduled Overrun	.00756	.40984	.00190		.41174
ate Schedule TFL-1 (4)(5)					
Reservation	-	-	-	-	-
Volumetric	-	-	-	-	-
Scheduled Overrun	-	-	-	-	-
Rate Schedule TIL-1					
ate Schedule TIL-1 Volumetric	-	-	-	-	_

Issued by: Laren M.Gertsch, Director

Issued on: August 24, 2009 Effective: October 1, 2009

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TF0307 0030003P128Third Revised Sheet No. 7
TF04 Second Revised Sheet No. 7
TF05Laren M. Gertsch, Director
TF06112008 010109

#### STATEMENT OF RATES (Continued)

#### Effective Rates Applicable to Rate Schedules SGS-2F and SGS-2I

(Dollars per Dth)

Rate Schedule and Type of Rate	Currently Tariff F Minimum	Rate (1)
Rate Schedule SGS-2F (2) (3) (4) (5) Demand Charge		
Pre-Expansion Shipper	0.00000	0.01551
Expansion Shipper	0.00000	0.08476
Capacity Demand Charge Pre-Expansion Shipper	0.00000	0.00056
Expansion Shipper - 2009 Phase	0.00000	0.00243
Volumetric Bid Rates Withdrawal Charge		
Pre-Expansion Shipper	0.00000	0.01551
Expansion Shipper	0.00000	0.08476
Storage Charge		
Pre-Expansion Shipper	0.00000	0.00056
Expansion Shipper - 2009 Phase	0.00000	0.00243
Rate Schedule SGS-2I Volumetric	0.00000	0.00112
VOLUMECTIC	0.00000	0.00113

#### Footnotes

<sup>(1)</sup> Shippers receiving service under these rate schedules are required to furnish fuel reimbursement in-kind at the rates specified on Sheet No. 14.

taritt Page 14 of 4/9

TF038 0010003P158First Revised Sheet No. 8
TF04 Original Sheet No. 8
TF05Laren M. Gertsch, Director
TF06103108 010109

TF071861272

STATEMENT OF RATES (Continued)

Effective Rates Applicable to Rate Schedule LS-1

(Dollars per Dth)

Type of Rate	Currently Effective Tariff Rate (1)
Demand Charge (2)	0.03062
Capacity Charge (2)	0.00391
Liquefaction	0.64110
Vaporization	0.04184

### Footnotes

<sup>(1)</sup> Shippers receiving service under this rate schedule are required to furnish fuel reimbursement in-kind at the rate specified on Sheet No. 14.

<sup>(2)</sup> Rates are daily rates computed on the basis of 365 days per year, except that rates for leap years are computed on the basis of 366 days.

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			Elasticity Volumes	Monthly Service Charge	Customers	Current 1/1/2009 Billing Rate	Proposed 11/1/2009 Billing Rate Before Elasticity	Current 1/1/2009 Revenue	Proposed 11/1/2009 Revenue	WACOG	Demand	Proposed 11/1/2009 Temporaries	Proposed 11/1/2009 Margin Rate	Proposed 11/1/2009 Margin
								F=(D*A)+(B*C*12)	$G=(E^*A)+(B^*C^*12)$				K = E - H - I - J	L = K * A
1	Schedule	Block	<u>A</u>	<u>B</u>	<u>c</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>1</u>	<u>1</u>	<u>K</u>	<u>L</u>
2	1R		740,147.1	\$5.00	3,624	\$1.45725	\$1.21999	\$1,296,019	\$1,120,412	\$0.59044	\$0.12502	(\$0.00486)	\$0.50939	\$377,024
3	1C		166,238.8	\$5.00	182	\$1.41578	\$1.16100	\$246,278	\$203,923	\$0.59044	\$0.12502	(\$0.03538)	\$0.48092	\$79,948
4	2R		362,090,600.4	\$6.00	533,687	\$1.39384	\$1.15324	\$543,121,826	\$456,002,828	\$0.59044	\$0.12502	(\$0.00462)	\$0.44240	\$160,188,882
5	3C Firm Sales		149,399,860.1	\$8.00	55,204	\$1.28982	\$1.03360	\$197,998,512	\$159,719,279	\$0.59044	\$0.12502	(\$0.03524)	\$0.35338	\$52,794,923
6	Intentionally blank													
7	31 Firm Sales													
8	Intentionally blank													
9	19	1st mantle												
10	19	add'l mtls										/ · · ·		
11	31C Firm Sales	Block 1	23,853,607.3	\$325.00	1,210	\$1.00914	\$0.87233	\$28,790,629	\$25,527,217	\$0.59044	\$0.12502	(\$0.03514)	\$0.19201	\$4,580,131
12		Block 2	36,060,860.8			\$0.99340	\$0.85624	\$35,822,859	\$30,876,751	\$0.59044	\$0.12502	(\$0.03512)	\$0.17590	\$6,343,105
13	31C Firm Trans	Block 1	0.0	\$325.00	0	\$0.17195	\$0.19423	\$0	\$0	\$0.00000	\$0.00000	\$0.00237	\$0.19186	\$0
14		Block 2	0.0		_	\$0.15616	\$0.17816	\$0	\$0	\$0.00000	\$0.00000	\$0.00239	\$0.17577	\$0
15	31C Interr Sales	Block 1	313,225.2	\$325.00	0	\$1.03105	\$0.76778	\$322,951	\$240,488	\$0.59044	\$0.01486	(\$0.02958)	\$0.19206	\$60,158
16		Block 2	1,066,773.3		500.007	\$1.01520	\$0.75167	\$1,082,988	\$801,861	\$0.59044	\$0.01486	(\$0.02957)	\$0.17594	\$187,688
17 18			573,691,313		593,907			\$808,682,062	\$674,492,759					\$224,611,858
19	Calculation of Cla	cc Drings o	nd Maraina			01/01/00 Class Dries	11/01/00 Class Dries	1/01/09 Class Revenue:	1 /01 /00 Class Davenus				Class Margin Rate	Class Margin
20	Calculation of Cia	ss Prices a	nu margins.			Column F ÷ A	Column G ÷ A	1/01/09 Class Revenue:	1/01/09 Class Revenues	<u> </u>			Column L ÷ A	Class Margin
21	Residential (Line 2	Line 4)	362,830,748		537,311	\$1.50047	\$1.25988	544,417,845	457,123,240				\$0.44254	160,565,905
22	Commercial (Line 1				56,596	\$1.25327	\$1.03087	264,264,217	217,369,519				\$0.30374	64,045,953
23	Commercial (Line 1	/ - Line 21)	573,691,313	_	593,907	\$1.23327	\$1.03067	808,682,062	674,492,759				\$0.30374	224,611,858
24			373,071,313		373,707			000,002,002	074,472,737					224,011,030
25	Sources for lines 1-	17·												
26	Direct Inputs			Per Tariff										
27	Diroct Inputs			r Gr Turni										
28	Rates in Detail page					Column A	Column N			Column F	Columns G + H	Column N		
29	Volumes page		Column G		Column H	JOIGHH A	ooidilli 14			COLUMNITY	00.0	COLG.TIII IV		
30	PGA Effects page		COMMITTE	Column D	GOIGHHITH									
31	i on Eliccis page			JOIGHIII D										
32	ELASTICITY CAL	CIII ATIO	ΛI -											
32	LLASTICITY CAL	COLATIO	<u>v.</u>											

Commercial

Proposed 210,860,566

\$1.03087

(\$0.22240)

(4,006,351)

\$0.30374

-17.7%

-1.9%

Current

\$1.25327

Elasticity volumes	Current	Proposed 362,830,748
Class prices (Columns D & E, lines 21, 22)	\$1.50047	\$1.25988
Change in class prices	-	(\$0.24059)
Percentage change in class prices		-16.0%
Volume change due to elasticity (Residential @ 0.172, Commercial @ 0.	11)	-2.8%
Volume change due to elasticity in therms (line 42 x line 34)		(10,159,261)

Margin rate per therm (Columns K & L, lines 21, 22)

Margin Shortfall (line 44 x Line 46)	(\$4,495,879)	(\$1,216,889)		
Rate Change Due to Elasticity Effects (line 48 ÷ line 34)	(\$0.01239)	(\$0.00577)		
Rate Change Due to Elasticity Effects with revenue sensitive added	(\$0.01277)	(\$0.00595)		

Residential

\$0.44254

		REMOVE Current	REMOVE Current	REMOVE Current	REMOVE Current	Permanents: Removed	ADD Proposed SIP: Bare	ADD Proposed SIP: Bare	ADD Proposed	ADD Proposed	ADD Proposed	Proposed	Net Effect of Permanent
		Bare Steel	Geo Hazard	IMP	Coos Bay	Subtotal	Steel 70%	Steel 30%	Geo-Haz Final	SIP: DIMP	SIP: TIMP	Subtotal	Items
Schedule	Block	Α	В	С	D	E	F	G	н	1	J	K	L
1R		0.00516	0.00276	0.01001	(0.00042)	0.01751	0.00364	0.00250	0.00267	0.00000	0.01062	0.01943	0.00192
1C		0.00455	0.00198	0.00716	(0.00029)	0.01340	0.00364	0.00169	0.00180	0.00000	0.00718	0.01431	0.00091
2R		0.00440	0.00178	0.00647	(0.00027)	0.01238	0.00364	0.00170	0.00181	0.00000	0.00722	0.01437	0.00199
3C Firm Sales		0.00400	0.00126	0.00460	(0.00019)	0.00967	0.00364	0.00120	0.00128	0.00000	0.00509	0.01121	0.00154
Intentionally blank													
31 Firm Sales		0.00384	0.00106	0.00386	(0.00016)	0.00860	0.00364	0.00101	0.00108	0.00000	0.00431	0.01004	0.00144
Intentionally blank		0.06	0.00	0.00	0.00	0.06	0.07	0.00	0.00	0.00	0.00	0.07	0.01
19	1st mantle add'l mtls	0.06	0.00	0.00	0.00	0.06	0.07	0.00	0.00	0.00	0.00	0.07	0.01
31C Firm Sales	Block 1	0.00371	0.00089	0.00323	(0.00013)	0.00770	0.00364	0.00085	0.00090	0.00000	0.00359	0.00898	0.00128
310 FIIII Sales	Block 2	0.00371	0.00089	0.00323	(0.00013)	0.00770	0.00364	0.00083	0.00090	0.00000	0.00339	0.00853	0.00128
31C Firm Trans	Block 1	0.00360	0.00075	0.00271	(0.00012)		0.00364	0.00077	0.00077	0.00000	0.00327	0.00820	0.00125
STOTHIN Hans	Block 2	0.00355	0.00073	0.00248	(0.00011)	0.00661	0.00364	0.00066	0.00071	0.00000	0.00281	0.00782	0.00123
31C Interr Sales	Block 1	0.00350	0.00061	0.00223	(0.00009)	0.00625	0.00364	0.00059	0.00063	0.00000	0.00251	0.00737	0.00112
	Block 2	0.00345	0.00056	0.00203	(0.00008)	0.00596	0.00364	0.00054	0.00058	0.00000	0.00230	0.00706	0.00110
311 Firm Sales	Block 1	0.00056	0.00072	0.00263	(0.00011)		0.00000	0.00081	0.00087	0.00000	0.00345	0.00513	0.00133
	Block 2	0.00051	0.00065	0.00238	(0.00010)	0.00344	0.00000	0.00073	0.00078	0.00000	0.00311	0.00462	0.00118
31I Firm Trans	Block 1	0.00054	0.00069	0.00252	(0.00010)	0.00365	0.00000	0.00071	0.00075	0.00000	0.00300	0.00446	0.00081
	Block 2	0.00049	0.00063	0.00228	(0.00009)	0.00331	0.00000	0.00064	0.00068	0.00000	0.00271	0.00403	0.00072
311 Interr Sales	Block 1	0.00079	0.00102	0.00370	(0.00016)	0.00535	0.00000	0.02065	0.02204	0.00000	0.08785	0.13054	0.12519
	Block 2	0.00071	0.00092	0.00335	(0.00014)	0.00484	0.00000	0.01866	0.01992	0.00000	0.07939	0.11797	0.11313
32C Firm Sales	Block 1	0.00037	0.00047	0.00172	(0.00007)	0.00249	0.00000	0.00044	0.00047	0.00000	0.00185	0.00276	0.00027
	Block 2	0.00031	0.00040	0.00146	(0.00006)	0.00211	0.00000	0.00037	0.00040	0.00000	0.00158	0.00235	0.00024
	Block 3	0.00022	0.00028	0.00103	(0.00004)	0.00149	0.00000	0.00026	0.00028	0.00000	0.00111	0.00165	0.00016
	Block 4	0.00013	0.00017	0.00060	(0.00003)	0.00087	0.00000	0.00015	0.00016	0.00000	0.00065	0.00096	0.00009
	Block 5	0.00007	0.00009	0.00034	(0.00001)	0.00049	0.00000	0.00009	0.00009	0.00000	0.00037	0.00055	0.00006
	Block 6	0.00004	0.00005	0.00017	(0.00001)	0.00025	0.00000	0.00004	0.00005	0.00000	0.00019	0.00028	0.00003
321 Firm Sales	Block 1	0.00038	0.00049	0.00178	(0.00007)		0.00000	0.00047	0.00050	0.00000	0.00200	0.00297	0.00039
	Block 2	0.00032	0.00042	0.00151	(0.00006)	0.00219	0.00000	0.00040	0.00043	0.00000	0.00170	0.00253	0.00034
	Block 3	0.00023	0.00029	0.00107	(0.00004)	0.00155	0.00000	0.00028	0.00030	0.00000	0.00120	0.00178	0.00023
	Block 4	0.00013	0.00017	0.00062	(0.00003)	0.00089	0.00000	0.00017	0.00018	0.00000	0.00070	0.00105	0.00016
	Block 5	0.00008	0.00010	0.00036	(0.00001)		0.00000	0.00009	0.00010	0.00000	0.00040	0.00059	0.00006
00 F: T	Block 6	0.00004	0.00005	0.00018	(0.00001)	0.00026	0.00000	0.00005	0.00005	0.00000	0.00020	0.00030	0.00004
32 Firm Trans	Block 1	0.00030	0.00039	0.00140	(0.00006)	0.00203	0.00000	0.00035	0.00038	0.00000	0.00151	0.00224	0.00021
	Block 2	0.00025	0.00033	0.00119	(0.00005)	0.00172	0.00000	0.00030	0.00032	0.00000	0.00128	0.00190	0.00018
	Block 3	0.00018	0.00023	0.00084	(0.00004)	0.00121	0.00000	0.00021	0.00023	0.00000	0.00090	0.00134	0.00013
	Block 4 Block 5	0.00010 0.00006	0.00013 0.00008	0.00049 0.00028	(0.00002)	0.00070 0.00041	0.00000	0.00012 0.00007	0.00013 0.00008	0.00000	0.00053 0.00030	0.00078 0.00045	0.00008
	Block 6	0.00003	0.00008	0.00028	(0.00001)	0.00041	0.00000	0.00007	0.00008	0.00000	0.00030	0.00043	0.00004
32 Interr Sales	Block 1	0.00032	0.00004	0.00014	(0.00001)	0.0020	0.00000	0.00042	0.0004	0.00000	0.00013	0.00263	0.00048
32 Interi Sales	Block 2	0.00032	0.00041	0.00146	(0.00005)	0.00213	0.00000	0.00042	0.00038	0.00000	0.00177	0.00203	0.00048
	Block 3	0.00027	0.00024	0.00089	(0.00003)	0.00132	0.00000	0.00035	0.00037	0.00000	0.00106	0.00158	0.00030
	Block 4	0.00017	0.00024	0.00052	(0.00004)	0.00128	0.00000	0.00025	0.00027	0.00000	0.00168	0.00093	0.00030
	Block 5	0.00001	0.00008	0.00032	(0.00002)	0.00073	0.00000	0.00008	0.00009	0.00000	0.00035	0.00052	0.00010
	Block 6	0.00003	0.00004	0.00035	(0.00001)	0.00043	0.00000	0.00004	0.00004	0.00000	0.00033	0.00032	0.00005
32 Interr Trans	Block 1	0.00028	0.00036	0.00132	(0.00006)	0.00190	0.00000	0.00035	0.00037	0.00000	0.00148	0.00220	0.00030
	Block 2	0.00024	0.00031	0.00113	(0.00005)	0.00163	0.00000	0.00030	0.00032	0.00000	0.00125	0.00187	0.00024
	Block 3	0.00017	0.00022	0.00079	(0.00003)	0.00115	0.00000	0.00021	0.00022	0.00000	0.00089	0.00132	0.00017
	Block 4	0.00010	0.00013	0.00046	(0.00002)	0.00067	0.00000	0.00012	0.00013	0.00000	0.00052	0.00077	0.00010
	Block 5	0.00006	0.00007	0.00026	(0.00001)	0.00038	0.00000	0.00007	0.00007	0.00000	0.00030	0.00044	0.00006
	Block 6	0.00003	0.00004	0.00013	(0.00001)	0.00019	0.00000	0.00003	0.00004	0.00000	0.00015	0.00022	0.00003
Intentionally blank													
33		0.00002	0.00002	0.00008	0.00000	0.00012	0.00000	0.00002	0.00002	0.00000	0.00009	0.00013	0.00001

Sources: Direct Inputs 08-09 PGA 08-09 PGA 08-09 PGA 08-09 PGA

Equal ¢ per therm	Column AB					
Equal % of margin		Column O	Column R	Column U	Column X	

2 3 4 5			Current Temporaries	ADD WACOG Deferral	ADD Demand Deferral FIRM	ADD Demand Deferral INTERR	ADD Residential Decoupling	ADD Commercial Decoupling	ADD Smart Energy	ADD Intervenor Funding - CUB	ADD Pension Expense Credit	ADD Intervenor Funding - NWIGU	Total Proposed Temps	Net Effect of Temps
6	Schedule	Block	- A	В	С	D	Ε	F	G	н	i	J	К	L
7	1R		(0.01095)	(0.03237)	(0.00622)	0.00000	0.03311	0.00000	0.00112	0.00023	(0.00073)	0.00000	(0.00486)	0.00609
8	1C		(0.02876)	(0.03237)	(0.00622)	0.00000	0.00000	0.00258	0.00112	0.00000	(0.00049)	0.00000	(0.03538)	(0.00662)
9	2R		(0.01104)	(0.03237)	(0.00622)	0.00000	0.03311	0.00000	0.00112	0.00023	(0.00049)	0.00000	(0.00462)	0.00642
10	3C Sales Firm		(0.02884)	(0.03237)	(0.00622)	0.00000	0.00000	0.00258	0.00112	0.00000	(0.00035)	0.00000	(0.03524)	(0.00640)
11	Intentionally blank			,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(						(		(	
12 13	31 Sales Firm Intentionally blank		(0.01331)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00030)	0.00003	(0.03886)	(0.02555)
14	19	1st mantle	(0.26)	(0.62)	(0.12)	0.00	0.00	0.00	0.02	0.00	0.00	0.00	(0.72)	(0.46)
15	19	add'l mtls	(0.26)	(0.62)	(0.12)	0.00	0.00	0.00	0.02	0.00	0.00	0.00	(0.72)	(0.46)
16	31C Sales Firm	Block 1	(0.02890)	(0.03237)	(0.00622)	0.00000	0.00000	0.00258	0.00112	0.00000	(0.00025)	0.00000	(0.03514)	(0.00624)
17	010 04105 1 11111	Block 2	(0.02890)	(0.03237)	(0.00622)	0.00000	0.00000	0.00258	0.00112	0.00000	(0.00023)	0.00000	(0.03512)	(0.00622)
18	31C Trans Firm	Block 1	(0.01537)	0.00000	0.00000	0.00000	0.00000	0.00258	0.00000	0.00000	(0.00021)	0.00000	0.00237	0.01774
19		Block 2	(0.01538)	0.00000	0.00000	0.00000	0.00000	0.00258	0.00000	0.00000	(0.00019)	0.00000	0.00239	0.01777
20	31C Sales Interr	Block 1	(0.00838)	(0.03237)	0.00000	(0.00074)	0.00000	0.00258	0.00112	0.00000	(0.00017)	0.00000	(0.02958)	(0.02120)
21		Block 2	(0.00837)	(0.03237)	0.00000	(0.00074)	0.00000	0.00258	0.00112	0.00000	(0.00016)	0.00000	(0.02957)	(0.02120)
22	31I Sales Firm	Block 1	(0.01336)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00024)	0.00003	(0.03880)	(0.02544)
23		Block 2	(0.01337)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00021)	0.00003	(0.03877)	(0.02540)
24	31I Trans Firm	Block 1	0.00018	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00020)	0.00003	(0.00017)	(0.00035)
25		Block 2	0.00016	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00018)	0.00003	(0.00015)	(0.00031)
26	31I Sales Interr	Block 1	0.00718	(0.03237)	0.00000	(0.00074)	0.00000	0.00000	0.00000	0.00000	(0.00600)	0.00003	(0.03908)	(0.04626)
27 28	32C Sales Firm	Block 2 Block 1	0.00719 (0.01349)	(0.03237)	0.00000	0.00074)	0.00000	0.00000	0.00000	0.00000	(0.00543)	0.00003	(0.03851)	(0.04570)
28 29	32C Sales Firm	Block 1 Block 2	(0.01349)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00112	0.00000	(0.00013)	0.00000	(0.03758)	(0.02411)
30		Block 3	(0.01351)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00112	0.00000	(0.00011)	0.00000	(0.03755)	(0.02404)
31		Block 4	(0.01351)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00112	0.00000	(0.00004)	0.00000	(0.03753)	(0.02399)
32		Block 5	(0.01353)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00112	0.00000	(0.00003)	0.00000	(0.03751)	(0.02377)
33		Block 6	(0.01353)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00112	0.00000	(0.00001)	0.00000	(0.03748)	(0.02395)
34	321 Sales Firm	Block 1	(0.01341)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00014)	0.00003	(0.03870)	(0.02529)
35		Block 2	(0.01341)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00012)	0.00003	(0.03868)	(0.02527)
36		Block 3	(0.01343)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00008)	0.00003	(0.03864)	(0.02521)
37		Block 4	(0.01343)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00005)	0.00003	(0.03861)	(0.02518)
38		Block 5	(0.01344)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00003)	0.00003	(0.03859)	(0.02515)
39		Block 6	(0.01344)	(0.03237)	(0.00622)	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00001)	0.00003	(0.03857)	(0.02513)
40	32 Trans Firm	Block 1	0.00014	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00010)	0.00003	(0.00007)	(0.00021)
41		Block 2	0.00014	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00009)	0.00003	(0.00006)	(0.00020)
42		Block 3	0.00012	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00006)	0.00003	(0.00003)	(0.00015)
43 44		Block 4 Block 5	0.00011 0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00004) (0.00002)	0.00003 0.00003	(0.00001) 0.00001	(0.00012) (0.00009)
44		Block 5	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00002)	0.00003	0.00001	(0.00007)
46	32 Sales Interr	Block 1	0.00714	(0.03237)	0.00000	(0.00074)	0.00000	0.00000	0.00000	0.00000	(0.0001)	0.00003	(0.03320)	(0.04034)
47	SE SUICS IIIICII	Block 2	0.00715	(0.03237)	0.00000	(0.00074)	0.00000	0.00000	0.00000	0.00000	(0.00012)	0.00003	(0.03320)	(0.04034)
48		Block 3	0.00712	(0.03237)	0.00000	(0.00074)	0.00000	0.00000	0.00000	0.00000	(0.00007)	0.00003	(0.03315)	(0.04027)
49		Block 4	0.00712	(0.03237)	0.00000	(0.00074)	0.00000	0.00000	0.00000	0.00000	(0.00004)	0.00003	(0.03312)	(0.04024)
50		Block 5	0.00711	(0.03237)	0.00000	(0.00074)	0.00000	0.00000	0.00000	0.00000	(0.00002)	0.00003	(0.03310)	(0.04021)
51		Block 6	0.00710	(0.03237)	0.00000	(0.00074)	0.00000	0.00000	0.00000	0.00000	(0.00001)	0.00003	(0.03309)	(0.04019)
52	32 Trans Interr	Block 1	0.00013	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00010)	0.00003	(0.00007)	(0.00020)
53		Block 2	0.00014	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00009)	0.00003	(0.00006)	(0.00020)
54		Block 3	0.00012	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00006)	0.00003	(0.00003)	(0.00015)
55		Block 4	0.00011	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00004)	0.00003	(0.00001)	(0.00012)
56		Block 5	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00002)	0.00003	0.00001	(0.00009)
57 58	Intentionally blank	Block 6	0.00009	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00002	(0.00007)
59	33		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	(0.00001)	0.00000	(0.00001)	(0.00001)
60			3.33300	3.55550	0.00000	0.00000	0.00000	5.55556	0.00000	5.55500	(0.00001)	0.00000	(0.00001)	(0.00001)
61	Sources:													
62	Direct Inputs		Jan 09 filing											
63	E			0 a l	Oak was C	0-1	0-1	California B	0-1	Calaman M.		0-11		
64 65	Equal ¢ per thern Equal % of marg			Column D	Column G	Column J	Column M	Column P	Column S	Column V	Column L	Column Y		
UJ	Equal 70 Ul mary	m f									COIGITITE			

### NW Natural Bare Steel, Geohazard and Integrity Management Programs Cost of Service Summary - PGA 2009-10 Thousands of Dollars

Bare Steel Program	Investment	Tracker Year Cost of Service
1 Activity Ended September 30, 2002	¢2.44E	¢210
2 Activity Ended September 30, 2003	\$2,665 3,510	\$319 415
3 Activity Ended September 30, 2004		377
4 Activity Ended September 30, 2005	3,094	755
5 Activity Ended September 30, 2006	6,000	(89)
6 Activity Ended September 30, 2007	(695) 430	57
7 Activity Ended September 30, 2008	3,850	529
8 Activity Ended September 30, 2009		616
9 Total Bare Steel Program	4,002	
y Total bare Steel Program	<u>\$22,857</u>	<u>\$2,978</u>
Geohazard Program		
10 Activity Ended September 30, 2002	\$1,714	\$205
11 Activity Ended September 30, 2003	555	66
12 Activity Ended September 30, 2004	139	17
13 Activity Ended September 30, 2005	206	26
14 Activity Ended September 30, 2006	2,863	367
15 Activity Ended September 30, 2007	254	34
16 Activity Ended September 30, 2008 (Oct 07-Dec 0	<b>7 ONLY)</b> 1,441	198
17 Final true-up of final program activity (through D	ec <b>07 only)</b> 272	42
18 Total Geohazard Program	\$7,443	\$954
Integrity Management Program (as of October 2008, "TIMP	P")	
19 Activity Ended September 30, 2005	\$3,476	\$437
20 Activity Ended September 30, 2006	8,978	1,152
21 Activity Ended September 30, 2007	2,604	346
22 Activity Ended September 30, 2008	9,680	1,331
23 Activity Ended September 30, 2009	3,446	530
24 Total Integrity Management Program	\$28,184	\$3,796
Distribution Integrity Management Program ("DIMP")		
25 Activity Ended September 30, 2009	\$0	
Total Integrity Management Program	<u>*0</u>	\$0
GRAND TOTAL ALL PROGRAMS	\$58,483	\$7,729

# NW Natural Rates and Regulatory Affairs 2009-2010 PGA Filing - Oregon Estimated Revenue Effects for the 12 Months Beginning November 1, 2009

Line No.	Item	Total Increment Amounts	Limit For Increment Amounts
1	Commodity and Demand Deferrals	(\$24,839,016)	
2	Temporary Increments	388,343	
3	Total =	(\$24,450,673)	
4 5 6	2008 Oregon Utility Revenues @ 3% threshold Threshold for Annual Effect of Proposed Change in Amortization	- -	\$923,914,000 3.0% \$27,717,420

ORS 757.259 (6)

NW NATURAL APPENDIX 'A'

### OPUC ORDER No. 09-263 / 09-248 DOCKET UM 1286 SECTION V. DATA AND ANALYSIS

Guideline Reference	Data Requirement	Location/Link	Status
	Definitions	Definitions!A1	
V.1	Physical Gas Supply	V.1.a pg 1'!A1 V.1.a pg 2'!A1 V.1.a pg3'!A1	HIGHLY CONFIDENTIAL HIGHLY CONFIDENTIAL HIGHLY CONFIDENTIAL
a)	For each physical natural gas supply resource that is included in a utility's portfolio (except spot purchases) upon which the current PGA is based, the utility should provide the following:		
1	Pricing for the resource, including the commodity price and, if relevant, reservation charges.		
2	For new transactions and contracts with pricing provisions entered into since the last PGA: competitive bidding process for the resource. This should include number of bidders, bid prices, utility decision criteria in selecting a "winning" bid, and any special pricing or delivery provisions negotiated as part of the bidding process.		
3	Brief explanation of each contract's role within the portfolio.		
b)	For purchases of physical natural gas supply resource from the spot natural gas market included in the portfolio at the time of the filing of the current PGA or after that filing, the utility should provide the following:	<u>V.1.b!A1</u>	
1	An explanation of the utility's spot purchasing guidelines, the data/information generally reviewed and analyzed in making spot purchases, and the general process through which such purchases are completed by the utility.	<u>V.1.b!A1</u>	
2	Any contract provisions that materially deviate from the standard NAESB contract.	<u>V.1.b!A1</u>	
V.2	Hedging The utility should clearly identify by type, contract, counterparty, and pricing point both the total cost and the cost per volume unit of each financial hedge included in its portfolio.	<u>V.2!A1</u>	HIGHLY CONFIDENTIAL
V.3	Load Forecasting		
a) b)	Customer count and revenue by month and class. Historical (five years) and forecasted (one year ahead) sales system physical peak demand.	<u>V.3.a!A1</u> <u>V.3.b!A1</u>	
c)	Historical (five years), and forecasted (one year ahead) sales system physical annual demand.	<u>V.3.c!A1</u>	
d)	Historical (five years), and forecasted (one year ahead) sales system physical demand for each of following,		
1	Annual for each customer class	V.3.d.1!A1	
2 3	Annual and monthly baseload. Annual and monthly non-baseload.	V.3.d.2!A1 V.3.d.3!A1	
4	Annual and monthly for the geographic regions utilized by each LDC in its most recent IRP or IRP update.	V.3.d.4!A1 V.3.d.4!A1	

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NW NATURAL APPENDIX 'A'

### OPUC ORDER No. 09-263 / 09-248 DOCKET UM 1286 SECTION V. DATA AND ANALYSIS

Guideline	Data Requirement	Location/Link	Status
Reference			
V.4	Market Information General historical and forecasted (one year ahead) conditions in the national and regional physical and financial natural gas purchase markets. This should include descriptions of each major supply point from which the LDC physically purchases and the major factors affecting supply, prices, and liquidity at those points.	<u>V.4!A1</u>	
V.5	Data Interpretation If not included in the PGA filing please explain the major aspects of the LDC's analysis and interpretation of the data and information described in (1) and (2) above, the most important conclusions resulting from that analysis and interpretation, and the application of these conclusions in the development of the current PGA portfolio.	<u>V.5!A1</u>	
V.6	Credit Worthiness Standards A copy of the Board or officer approved credit worthiness standards in place for the period in which the current gas supply portfolio was developed, along with full documentation for these standards. Also, a copy of the credit worthiness standards actually applied in the purchase of physical gas and entering into financial hedges. If the two are one and the same, please indicate so.	<u>V.6!A1</u>	
	Attachment 1 to V.6	V.6 attachment'!A1	CONFIDENTIAL/HIGHLY CONFIDENTIAL
V.7	<b>Storage</b> Workpapers should include the following information about natural gas storage included in the portfolio upon which that PGA is based.		
a)	Type of storage (e.g., depleted field, salt dome).	V.7.a-c'!A1	
b)	Location of each storage facility.	V.7.a-c'!A1	
c)	Total level of storage in terms of deliverability and capacity held during the gas year.	V.7.a-c'!A1	
d)	Historical (five years) gas supply delivered to storage, both annual total and by month.	<u>V.7.d-e'!A1</u>	
e)	Historical (five years) gas supply withdrawn from storage, both annual total and by month.	<u>V.7.d-e'!A1</u>	
f)	An explanation of the methodology utilized by the LDC to price storage injections and withdrawals, as well as the total and average (per unit) cost of storage gas.	<u>V.7.f!A1</u>	
g)	Copies of all contracts or other agreements and tariffs that control the LDC's use of the storage facilities included in the current portfolio.	<u>V.7.g!A1</u>	
h)	For LDCs that own and operate storage:	<u>V.7.h!A1</u>	CONFIDENTIAL
a.	The date and results of the last engineering study for that storage.		

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NW NATURAL APPENDIX 'A'

### OPUC ORDER No. 09-263 / 09-248 DOCKET UM 1286 SECTION V. DATA AND ANALYSIS

Guideline	Data Requirement	Location/Link	Status
Reference			

 A description of any significant changes in physical or operational parameters of the storage facility (including LNG) since the current engineering study was completed.

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### NW Natural PGA Filing Guidelines

#### **Definitions**

**AECO** The industry acronym used for Alberta sourced natural gas supply. It

originally comes from Alberta Energy Company which was incorporated in 1973 by the Alberta government (fully divested in

1993).

Baseload gas (contract) Purchase agreements in which NW Natural has to take a set

amount of gas each day from a supplier for the term of the agreement. Usually involves paying for any gas not taken unless

excused by reason of Force Majeure.

Btu British thermal unit. 100,000 Btus is equivalent to one therm.

CGPR Canadian Gas Price Reporter. This is the industry publication in

Canada that is put out by Canadian Enerdata Ltd and is the exclusive source of Canadian natural gas storage and price forecasts and publishes first of month Canadian indices used in

baseload purchase pricing

**Dth** Dekatherm. A unit of measure equal to 10 therms or one million

Btu.

**FOM** First of Month

Fuel-in-Kind (KIG) The published fuel rate calculated based on the amount of fuel used

on each pipeline to run the compressors and other equipment to move gas across their pipes. Fuel is taken in kind from all receipt shippers by reducing each shippers daily volumes in accordance to

the pipelines estimated fuel requirements.

GMR-NWP Rockies Inside FERC's Gas Market Report, a publication put out by Platts (a

McGraw-Hill subsidiary) that is the source used for price forecasts and indices that used to set US baseload and some daily purchase

prices.

Swing gas (contract) Purchase agreements in which NW Natural has the right, but not the

obligation, to take gas from a supplier on any given day.

Definitions Page 4

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V.1	Physical Gas Supply
a)	For each physical natural gas supply resource that is included in a utility's portfolio (except spot purchases) upon which the current PGA is based, the utility should provide the following:
1	Pricing for the resource, including the commodity price and, if relevant, reservation charges.
2	For new transactions and contracts with pricing provisions entered into since the last PGA: competitive bidding process for the resource. This should include number of bidders, bid prices, utility decision criteria in selecting a "winning" bid, and any special pricing or delivery provisions negotiated as part of the bidding process.
3	Brief explanation of each contract's role within the portfolio.

Baseload

Swing

Swing

#### All contracts are with Approved Counterparties per Exhibit "G" - NW NATURAL Gas Supply Risk Management Policies Approved Counterparties all have executed NAESB contracts with NW Natural

**Rocky Mountain Supply contracts** 

			Commodity	Published	Volume/Day	Volume/Day	Reservation Fee	Contractual	Default Receipt Pt.
Supplier	Term Start	Term End	Price	Index	in Dth's	in Dth's	cents/Dth/day	Conditions	Purchase Location
BP Energy Company	11/1/2008	10/31/2011		IFGMR-NWP Rockies FOM	10,000				Opal / Shute Creek
Western Gas Resources	11/1/2007	10/31/2010		IFGMR-NWP Rockies FOM	5,000				Green River Gathering
Iberdrola Renewables, Inc. (1)	11/1/2009	10/31/2010		IFGMR-NWP Rockies FOM	10,000				NWP Wyoming Pool
Anadarko Energy Services Company (2)	11/1/2009	3/31/2010		IFGMR-NWP Rockies FOM	5,000				NWP Rocky Mt. Pool
Enserco Energy Inc.(3)	11/1/2009	3/31/2010		IFGMR-NWP Rockies FOM	5,000				NWP Rocky Mt. Pool
BP Energy Company (4)	11/1/2009	3/31/2010		IFGMR-NWP Rockies FOM	10,000				Opal
Oneok Energy Services Company, L.P. (5)	11/1/2009	3/31/2010		IFGMR-NWP Rockies FOM		10,000		NWN Winter Call	Shute Creek
Kansas Energy, L.P. (6)	11/1/2009	3/31/2010		IFGMR-NWP Rockies FOM		5,000		NWN Winter Call	Opal
Kansas Energy, L.P. (7)	11/1/2009	3/31/2010		IFGMR-NWP Rockies FOM		5,000		NWN Winter Call	Opal
Shell Energy North America (US), L.P. (8)	11/1/2009	3/31/2010		IFGMR-NWP Rockies FOM		10,000		NWN Winter Call	NWP Wyoming P / Opal
Kansas Energy, L.P. (7)	4/1/2010	10/31/2010		IFGMR-NWP Rockies FOM		5,000		Kansas Put Option	Opal
Shell Energy North America (US), L.P. (8)	4/1/2010	10/31/2010		IFGMR-NWP Rockies FOM		10,000		Shell Put Option	NWP Wyoming P / Opal
Transactions for new PGA year									
Bidding Process Information	# of Bidders	Range of bids				Winning Bid C		_	
Iberdrola Renewables, Inc. (1)	6						ning bidder had exis	ting term deal in place	e for 09-10 season
Anadarko Energy Services Company (2)	6					Price			
Enserco Energy Inc.(3)	6					Price			
BP Energy Company (4)	6					Price			
Oneok Energy Services Company, L.P. (5)	5					Price			
Kansas Energy, L.P. (6)	3					Price, Non-Wir	ning bidders had ex	isting term deals in pla	ace for 09-10 season
Kansas Energy, L.P. (7)	7								
Shell Energy North America (US), L.P. (8)	7			_		Price, Non-Wir	ning bidders had ex	isting term deal in plac	ce for 09-10 season

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V.1	Physical Gas Supply						
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1	Pricing for the resource, including the commodity price and, if relevant, reservation charges.						
2	For new transactions and contracts with pricing provisions entered into since the last PGA: competitive bidding process for the resource. This should include number of bidders, bid prices, utility decision criteria in selecting a "winning" bid, and any special pricing or delivery provisions negotiated as part of the bidding process.						
3	Brief explanation of each contract's role within the portfolio.						

All contracts are with Approved Counterparties per Exhibit "G" - NW NATURAL Gas Supply Risk Management Policies Approved Counterparties all have executed NAESB contracts with NW Natural

11/1/2009

BP Canada Energy Marketing Corp (4)

Station 2 Supply contracts					Baseload
			Commodity	Published	Volume/Day
Supplier	Term Start	Term End	Price	Index	in Dth's
Coral Energy Canada	11/1/2005	10/31/2010		CGPR AECO FOM (7A) \$US/Dth	10,000
AltaGas Energy, L.P.	11/1/2008	10/31/2010		CGPR AECO FOM (7A) \$US/Dth	5,000
Nexen Marketing Canada	11/1/2008	10/31/2010		CGPR AECO FOM (7A) \$US/Dth	10,000
Husky Energy Marketing Inc. (1)	11/1/2009	10/31/2010		CGPR AECO FOM (7A) \$US/Dth	5,000
Suncor Energy Marketing Inc. (2)	11/1/2009	10/31/2010		CGPR AECO FOM (7A) \$US/Dth	10,000
Shell Energy North America (Canada) Inc. (3)	11/1/2009	10/31/2010		CGPR AECO FOM (7A) \$US/Dth	5,000

10/31/2012

Transactions for new PGA year Bidding Process Information	# of Bidders Range of bid	ds. Winning Bid Criteria
Husky Energy Marketing Inc. (1)	5	Price
Suncor Energy Marketing Inc. (2)	4	Price
Shell Energy North America (Canada) Inc. (3)	4	Price
BP Canada Energy Marketing Corp (4)	6	Price, Non-Winning bidder had existing term deal in place for 09-10 season

CGPR AECO FOM (7A) \$US/Dth

5,000

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V.1	Physical Gas Supply	
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1	Pricing for the resource, including the commodity price and, if relevant, reservation charges.	
2	For new transactions and contracts with pricing provisions entered into since the last PGA: competitive bidding process for the resource. This should include number of bidders, bid prices,	,
3	Brief explanation of each contract's role within the portfolio.	

All contracts are with Approved Counterparties per Exhibit "G" - NW NATURAL Gas Supply Risk Management Policies Approved Counterparties all have executed NAESB contracts with NW Natural

Aeco-NIT Supply contracts					Baseload	Swing	Swing	
Supplier	Term Start	Term End	Commodity Price	Published Index	Volume/Day in Dth's	Volume/Day in Dth's	Reservation Fee cents/Dth/day	Contractual Conditions
Sempra Energy Trading	11/1/2004	10/31/2014	11100	CGPR AECO FOM (7A) \$US/Dth	10,000	III Daii 3	cents/btil/day	Conditions
Ochipia Energy Trading	11/1/2004	10/31/2014		001 1( /\2001 0\m) (//) \pu00/D\m	10,000			
Husky Energy Marketing Inc. (1)	11/1/2009	3/31/2010		CGPR AECO FOM (7A) \$US/Dth	5,000			
Suncor Energy Marketing Inc. (2)	11/1/2009	3/31/2010		CGPR AECO FOM (7A) \$US/Dth	5,000			
Sequent Energy Canada Corp (4)	11/1/2009	3/31/2010		CGPR AECO FOM (7A) \$US/Dth		5,000		NWN Winter Call
Sequent Energy Canada Corp (4)	4/1/2010	10/31/2010		CGPR AECO FOM (7A) \$US/Dth		5,000		Sequent Put Option
Transactions for new PGA year								
Bidding Process Information	# of Bidders	Range of bids.			Winning Bid C	riteria	-	
Husky Energy Marketing Inc. (1)	7				Price		•	
Suncor Energy Marketing Inc. (2)	7				Price			
Sequent Energy Canada Corp (4)	5							
Sequent Energy Canada Corp (4)			·	·				

NW Natural PGA Filing Guidelines 2009-2010 Oregon PGA

### V.1 b) Physical Gas Supply

For purchases of physical natural gas supply resource from the spot natural gas market included in the portfolio at the time of the filing of the current PGA or after that filing, the utility should provide the following:

An explanation of the utility's spot purchasing guidelines, the data/information generally reviewed and analyzed in making spot purchases, and the general process through which such purchases are completed by the utility.

The purchasing of baseload and spot supplies for the 2009-2010 PGA follows the Gas Acquisition Plan updated by the Gas Acquisition Strategic Planning team and approved by the Gas Acquisition Strategy and Policies Committee.

2009-2010 purchasing targets diversity of supply regionally and by approved counterparties listed in the Gas Supply Risk Management Policies. The advantage of regional diversity is the opportunity to manage purchases to capture the lowest cost while maintaining a diversity of suppliers and avoiding over reliance on any one liquid trading point or one approved counterparty.

Diversity of contracts in the portfolio is determined by the forecasted usage of NW Natural customers.

- a. One year and greater baseload (take or pay) contract volumes are meant to meet low end requirements by NW Natural firm and interruptible sale customers during the PGA year while capturing the most favorable pricing. Contract volumes are set to avoid having excess supply that might result in loss of revenues sales.
- b. November March winter contract volumes are aligned to meet the forecasted seasonal increase during the heating season and are divided between baseload and winter call option contracts. This helps minimize the exposure to purchasing large volumes of high priced spot gas during cold weather events.
- c. April October summer put option contracts are tied to a winter call option contract to capture a discounted FOM index price and avoid payment of a reservation fee. The volume of the put option contracts is kept to a minimum to avoid over supply when added to term volumes.
- d. Spot purchases are used to fill in requirement on a monthly or daily basis throughout the PGA year. One month spot purchases are negotiated to capture the best FOM index pricing, either Inside FERC or Canadian Gas Price Reporter. Daily spot purchasing utilizes either a daily index (in the case of Rocky Mountain or Sumas supply and published in Inside FERC's Gas Daily publication) or a fixed price in US dollars as negotiated using the electronic trading platform Intercontinental Exchange (ICE) for Rocky Mountain, Sumas, Station 2 and Alberta (Aeco/NIT) supplies. NW Natural does not trade electronically but uses the active Bid/Offer pricing at the above liquid points on ICE to negotiate daily spot deals. In the new PGA filing there are no active spot purchases in the NW Natural portfolio.
- 2 Any contract provisions that materially deviate from the standard NAESB contract.

None.

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#### V.2 Hedging

The utility should clearly identify by type, contract, counterparty, and pricing point both the total cost and the cosper volume unit of each financial hedge included in its portfolio.

#### For Physical Flows November 2009 through October 2010

_						2009-10	Daily	Nov9-Mar10N	Nov9-Oct10		2009-10		Total
Date	Ref. #	Counterparty	Supply	Ref. Pt.	Term	Days	Volumes	Daily Vols	Daily Vols	Other	Volumes	Price	Price
28-Mar-08	2008-01			Rockies	Nov09-Oct10	365	5,000		5,000		1,825,000		
28-May-08	2008-08			Rockies	Nov09-Oct10	365	5,000		5,000		1,825,000		
3-Oct-08	2008-76			AECO / Sumas	Nov09-Oct10	365	5,000		5,000		1,825,000		
3-Oct-08	2008-78			AECO / Sumas	Nov09-Oct10	365	5,000		5,000		1,825,000		
18-Nov-08	2008-80			AECO / Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
18-Nov-08	2008-81			Sumas	Nov09-Oct10	365	5,000		5,000		1,825,000		
20-Nov-08	2008-82			Sumas	Nov09-Oct10	365	5,000		5,000		1,825,000		
9-Dec-08	2008-83			AECO / Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
12-Dec-08	2008-84			AECO / Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
17-Dec-08	2008-85			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
18-Dec-08	2008-86			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
13-Jan-09	2009-01			AECO / Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
14-Jan-09	2009-02			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
20-Jan-09	2009-03			Sumas	Apr 10	30	10,000			10,000	300,000		
22-Jan-09	2009-04			Sumas	Oct 10	31	10,000			10,000	310,000		
23-Jan-09	2009-05			Sumas	Apr 10	30	10,000			10,000	300,000		
29-Jan-09	2009-06			Rockies	Nov09-Apr10	181	5,000			5,000	905,000		
10-Feb-09	2009-07			Sumas	Oct 10	31	5,000			5,000	155,000		
10-Feb-09	2009-08			Sumas	Nov09-Apr10	181	5,000			5,000	905,000		
12-Feb-09	2009-09			Sumas	Oct 10	31	5,000			5,000	155,000		
18-Feb-09	2009-10			Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
20-Feb-09	2009-11			Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
25-Feb-09	2009-12			Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
10-Mar-09	2009-13			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
18-Mar-09	2009-14			Sumas	Nov09-Mar10	151	2,500	2,500			377,500		
18-Mar-09	2009-15			Sumas	May 10	31	5,000			5,000	155,000		
18-Mar-09	2009-16			Sumas	Nov09-Mar10	151	2,500	2,500			377,500		
31-Mar-09	2009-17			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
15-Apr-09	2009-18			Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
24-Apr-09	2009-19			Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
29-Apr-09	2009-20			Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
29-Apr-09	2009-21			Sumas	May10	31	5,000			5,000	155,000		
29-Apr-09	2009-22			Sumas	May 10	31	5,000			5,000	155,000		
29-Apr-09	2009-23			AECO	Nov09-Mar10	151	5,000	5,000			755,000		
15-May-09	2009-24			Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
22-May-09	2009-25			AECO / Sumas	Nov09-Mar10	151	5,000	5,000			755,000		
29-May-09	2009-26			AECO	Nov09-Oct12	365	2,500		2,500		912,500		

### For Physical Flows November 2009 through October 2010

1 of 1 Hysical	1 10113 1101011	ilber 2009 till odgil October 20	,,,,			2009-10	Daily	Nov9-Mar10	Nov9-Oct10		2009-10		Total
Date	Ref. #	Counterparty	Supply	Ref. Pt.	Term	Days	Volumes	Daily Vols	Daily Vols	Other	Volumes	Price	Price
29-May-09	2009-27			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
16-Jun-09	2009-28			AECO	Nov09-Oct12	365	2,500		2,500		912,500		
19-Jun-09	2009-29			Sumas	May10	31	5,000			5,000	155,000		
19-Jun-09	2009-30			Sumas	May10	31	5,000			5,000	155,000		
26-Jun-09	2009-31			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
30-Jun-09	2009-32			Sumas	Nov10-Oct12	0	2,500		2,500		0		
30-Jun-09	2009-33			Rockies	Nov09-Mar10	151	5,000	5,000			755,000		
30-Jun-09	2009-34			Sumas	Apr 10	30	5,000			5,000	150,000		
30-Jun-09	2009-35			Sumas	Oct 10	31	10,000			10,000	310,000		
13-Jul-09	2009-36			Rockies	Nov 09	30	5,000			5,000	150,000		
14-Jul-09	2009-37			Rockies	Dec 09	31	5,000			5,000	155,000		
15-Jul-09	2009-38			Rockies	Dec 09	31	5,000			5,000	155,000		
15-Jul-09	2009-39			Rockies	Nov 09	30	5,000			5,000	150,000		
15-Jul-09	2009-40			Rockies	Nov 09	30	5,000			5,000	150,000		
15-Jul-09	2009-41			Sumas	Nov10-Oct12	0	2,500		2,500		0		
15-Jul-09	2009-42			Rockies	Dec 09	31	5,000			5,000	155,000		
<b>Grand Total</b>							270,000	110,000	40,000	120,000	34,565,000		
												Check:	\$0

						2009-10	Daily	Nov9-Mar10Nov9-Oct10				Total
Date	Ref. #	Counterparty	Supply	Ref. Pt.	Term	Days	Volumes	Daily Vols Daily Vols	Other	Volumes	Price	Price
28-Mar-08	2008-01			Rockies	Nov09-Oct10	365	4,872	4,872		1,778,444		
28-May-08	2008-08			Rockies	Nov09-Oct10	365	4,872	4,872		1,778,444		
3-Oct-08	2008-76			AECO / Sumas	Nov09-Oct10	365	4,872	4,872		1,778,444		
3-Oct-08	2008-78			AECO / Sumas	Nov09-Oct10	365	4,872	4,872		1,778,444		
18-Nov-08	2008-80			AECO / Sumas	Nov09-Mar10	151	4,872	0		735,740		
18-Nov-08	2008-81			Sumas	Nov09-Oct10	365	4,872	4,872		1,778,444		
20-Nov-08	2008-82			Sumas	Nov09-Oct10	365	4,872	4,872		1,778,444		
9-Dec-08	2008-83			AECO / Sumas	Nov09-Mar10	151	4,872	0		735,740		
12-Dec-08	2008-84			AECO / Sumas	Nov09-Mar10	151	4,872	0		735,740		
17-Dec-08	2008-85			Rockies	Nov09-Mar10	151	4,872	0		735,740		
18-Dec-08	2008-86			Rockies	Nov09-Mar10	151	4,872	0		735,740		
13-Jan-09	2009-01			AECO / Sumas	Nov09-Mar10	151	4,872	0		735,740		
14-Jan-09	2009-02			Rockies	Nov09-Mar10	151	4,872	0		735,740		
20-Jan-09	2009-03			Sumas	Apr 10	30	9,745	0		292,347		
22-Jan-09	2009-04			Sumas	Oct 10	31	9,745	0		302,092		
23-Jan-09	2009-05			Sumas	Apr 10	30	9,745	0		292,347		

For Physical Flows November 2009 through October 2010

Date   Ref. #   Counterparty   Sumply   Ref. Pt.   Term   Date   Date   Date   Volumes   Date   Volumes   Price   Pr			_				2009-10	Daily	Nov9-Mar10N	lov9-Oct10		2009-10		Total
10-Feb-0  2009-07    Sumas	Date	Ref. #	Counterparty	Supply	Ref. Pt.	Term	Days	Volumes	Daily Vols	Daily Vols	Other	Volumes	Price	
10 Feb   2009   909	29-Jan-09	2009-06			Rockies	Nov09-Apr10	181	4,872		0		881,913		
12-Feb   0009-09   Sumas	10-Feb-09	2009-07			Sumas	Oct 10	31	4,872		0		151,046		
181-Feb   2009-10   Sumas   Nov09-Mar10   151   4.872   4.872   735,740	10-Feb-09	2009-08			Sumas	Nov09-Apr10	181	4,872		0		881,913		
20-Feb.09   2009-11   Sumas   Nov09-Mar10   151   4,872   4,872   735,740	12-Feb-09	2009-09			Sumas	Oct 10	31	4,872		0		151,046		
25-Feb-90   2009-12   Sumas   Nov09-Mer10   151   4,872   4,872   735,740	18-Feb-09	2009-10			Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
10-Mar-09   2009-13   Rockies   Nov09-Mar10   151   4,872   4,872   735,740	20-Feb-09	2009-11			Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
18-Mar   02   2009 - 14   Sumas   Nov09-Mar   15   2,436   2,436   367,870     18-Mar   02   2009 - 15   Sumas   Nov09-Mar   15   2,436   2,436   367,870     18-Mar   02   2009 - 16   Sumas   Nov09-Mar   15   2,436   2,436   367,870     18-Mar   02   2009 - 17   Rockies   Nov09-Mar   15   4,872   4,872   735,740     18-Apr   02   2009 - 18   Sumas   Nov09-Mar   15   4,872   4,872   735,740     24-Apr   02   2009 - 19   Sumas   Nov09-Mar   15   4,872   4,872   735,740     24-Apr   02   2009 - 20   Sumas   Nov09-Mar   15   4,872   4,872   735,740     24-Apr   02   2009 - 21   Sumas   Nov09-Mar   15   4,872   4,872   0   151,046     24-Apr   02   2009 - 22   Sumas   May   10   31   4,872   0   151,046     24-Apr   03   2009 - 23   AECD   Nov09-Mar   15   4,872   0   151,046     24-Apr   03   2009 - 24   Sumas   May   10   31   4,872   0   151,046     24-Apr   03   2009 - 24   Sumas   Nov09-Mar   15   4,872   0   151,046     24-Apr   03   2009 - 24   Sumas   Nov09-Mar   15   4,872   0   151,046     24-Apr   03   2009 - 24   Sumas   Nov09-Mar   15   4,872   0   151,046     24-Apr   03   2009 - 24   Sumas   Nov09-Mar   15   4,872   0   151,046     24-Apr   03   2009 - 25   AECD   Nov09-Mar   15   4,872   4,872   7735,740     24-Apr   03   2009 - 25   AECD   Nov09-Mar   15   15   4,872   4,872   7735,740     24-Apr   03   2009 - 25   AECD   Nov09-Mar   15   15   4,872   4,872   7735,740     24-Apr   03   2009 - 25   AECD   Nov09-Mar   15   15   4,872   4,872   7735,740     24-Apr   03   2009 - 25   AECD   Nov09-Mar   15   15   4,872   0   15   4,872   7735,740     24-Apr   03   2009 - 25   AECD   Nov09-Mar   15   15   4,872   0   15   4,872   7735,740     24-Apr   03   2009 - 25   AECD   Nov09-Mar   15   4,872   0   15   4,872   7735,740     24-Apr   03   03   03   03   03   03   03   0	25-Feb-09	2009-12			Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
18-Mar   20   2009-15   Sumas   May 10   31   4.872   0   151.046	10-Mar-09	2009-13			Rockies	Nov09-Mar10	151	4,872	4,872			735,740		
18-Mar 09 209-16 Sumas Nov09-Mar10 151 4,872 4,872 735,740 15-Apr 09 209-18 Sumas Nov09-Mar10 151 4,872 4,872 735,740 15-Apr 09 209-18 Sumas Nov09-Mar10 151 4,872 4,872 735,740 29-Apr 09 209-20 Sumas Nov09-Mar10 151 4,872 4,872 735,740 29-Apr 09 209-20 Sumas Nov09-Mar10 151 4,872 4,872 735,740 29-Apr 09 209-21 Sumas Nov09-Mar10 151 4,872 0 151,046 29-Apr 09 209-22 Sumas Nov09-Mar10 151 4,872 0 151,046 29-Apr 09 209-23 AECO Nov09-Mar10 151 4,872 0 151,046 29-Apr 09 209-25 Sumas Nov09-Mar10 151 4,872 4,872 735,740 29-May 09 209-26 AECO Nov09-Mar10 151 4,872 4,872 735,740 29-May 09 209-27 Rockies Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas Nov09-Mar10 151 4,872 4,872 735,740 19-Jun 09 209-29 Sumas May 10 31 4,872 0 151,046 26-Jun 09 209-30 Sumas May 10 31 4,872 0 151,046 26-Jun 09 209-31 Rockies Nov09-Mar10 151 4,872 0 151,046 26-Jun 09 209-33 Rockies Nov09-Mar10 151 4,872 0 151,046 19-Jun 09 209-33 Rockies Nov09-Mar10 151 4,872 0 151,046 19-Jun 09 209-33 Rockies Nov09-Mar10 151 4,872 0 151,046 19-Jun 09 209-39 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-39 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-39 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-39 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-39 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Rockies Nov09 30 4,872 0 151,046 19-Jun 09 209-30 Roc	18-Mar-09	2009-14			Sumas	Nov09-Mar10	151	2,436	2,436			367,870		
31-Mar-09 209-17 Rockies Nov09-Mar-10 151 4,872 4,872 735,740 24-Apr-09 209-19 Sumas Nov09-Mar-10 151 4,872 4,872 735,740 24-Apr-09 209-19 Sumas Nov09-Mar-10 151 4,872 4,872 735,740 24-Apr-09 209-20 Sumas Nov09-Mar-10 151 4,872 4,872 735,740 29-Apr-09 209-21 Sumas May-10 31 4,872 0 151,046 29-Apr-09 209-22 Sumas May-10 31 4,872 0 151,046 29-Apr-09 209-23 AECO Nov09-Mar-10 151 4,872 4,872 735,740 15-May-09 209-24 Sumas Nov09-Mar-10 151 4,872 4,872 735,740 15-May-09 209-25 AECO Nov09-Mar-10 151 4,872 4,872 735,740 15-May-09 209-26 AECO Nov09-Mar-10 151 4,872 4,872 735,740 29-May-09 209-26 AECO Nov09-Mar-10 151 4,872 4,872 735,740 29-May-09 209-28 AECO Nov09-Mar-10 151 4,872 4,872 735,740 15-Jun-09 209-29 AECO Sumas Nov09-Mar-10 151 4,872 4,872 735,740 15-Jun-09 209-29 AECO Sumas Nov09-Mar-10 151 4,872 4,872 735,740 15-Jun-09 209-29 Sumas May-10 31 4,872 0 151,046 29-Jun-09 209-29 Sumas May-10 31 4,872 0 151,046 29-Jun-09 209-30 Sumas May-10 31 4,872 0 151,046 29-Jun-09 209-30 Sumas May-10 31 4,872 0 151,046 29-Jun-09 209-30 Sumas May-10 31 4,872 0 151,046 29-Jun-09 209-31 Rockies Nov09-Mar-10 151 4,872 4,872 735,740 30-Jun-09 209-33 Rockies Nov09-Mar-10 151 4,872 0 151,046 30-Jun-09 209-35 Sumas May-10 31 4,872 0 151,046 30-Jun-09 209-35 Sumas Nov10-Oct12 0 2,436 0 0 0 30-Jun-09 209-35 Sumas Nov10-Oct12 0 2,436 0 0 0 30-Jun-09 209-35 Sumas Nov10-Oct12 0 2,436 0 0 0 30-Jun-09 209-36 Rockies Nov09 30 4,872 0 161,074 30-Jun-09 209-39 Rockies Nov09 30 4,872 0 151,046 30-Jun-09 209-39 Rockies Nov09 30 4,872 0 151,046 30-Jun-09 209-39 Rockies Nov09 30 4,872 0 151,046 30-Jun-09 209-40 30-Jun-09 209-40 30-Jun-09 209-40 30 4,872 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18-Mar-09	2009-15			Sumas	May 10	31	4,872	0			151,046		
15-Apr-09   2009-18   Sumas   Nov09-Mar10   151   4,872   4,872   735,740	18-Mar-09	2009-16			Sumas	Nov09-Mar10	151	2,436	2,436			367,870		
24-Apr-09   2009-19   Sumas   Nov0P-Mar10   151   4,872   4,872   735,740	31-Mar-09	2009-17			Rockies	Nov09-Mar10	151	4,872	4,872			735,740		
29-Apr-09   2009-20   Sumas   Nov0P-Mar10   151   4,872   4,872   735,740	15-Apr-09	2009-18			Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
Sums	24-Apr-09	2009-19			Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
29-Apr-09   2009-22   Sumas   May 10   31   4.872   0   151.046	29-Apr-09	2009-20			Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
29-Apr-09   2009-22   Sumas   May 10   31   4.872   0   151.046	29-Apr-09	2009-21			Sumas	May10	31	4,872	0			151,046		
29-Apr-09   2009-23   AECO   Nov09-Mar10   151   4,872   4,872   735,740	29-Apr-09	2009-22			Sumas	May 10	31	4,872	0					
22-May-09   2009-25   AECO / Sumas   Nov09-Mar10   151   4,872   4,872   735,740	-	2009-23			AECO	-	151	4,872	4,872					
29-May-09 2009-26       AECO       Nov09-Mar10       151       4,872       4,872       735,740         16-Jun-09 2009-28       AECO       Nov09-Mar10       151       4,872       4,872       735,740         19-Jun-09 2009-29       Sumas       May10       31       4,872       0       151,046         19-Jun-09 2009-30       Sumas       May10       31       4,872       0       151,046         26-Jun-09 2009-31       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09 2009-32       Sumas       Nov10-Oct12       0       2,436       0       0       0         30-Jun-09 2009-33       Sumas       Nov10-Oct12       0       2,436       0       0       0       0         30-Jun-09 2009-34       Sumas       Nov09-Mar10       151       4,872       4,872       735,740       30-Jun-09       2009-35       Sumas       Oct 10       31       9,745       0       146,174       30-Jun-09       2009-35       Sumas       Oct 10       31       9,745       0       146,174       30-Jun-09       2009-35       Rockies       Nov 09       30       4,872       0       146,174       151,046       15-Jul-09       <	15-May-09	2009-24			Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
29-May-09       2009-27       Rockles       Nov09-Mar10       151       4,872       4,872       735,740         16-Jun-09       2009-28       AECO       Nov09-Oct12       365       2,436       0       889,222         19-Jun-09       2009-29       Sumas       May10       31       4,872       0       151,046         19-Jun-09       2009-30       Sumas       May10       31       4,872       0       151,046         26-Jun-09       2009-31       Rockles       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-32       Sumas       Nov10-Oct12       0       2,436       0       0       0         30-Jun-09       2009-33       Rockles       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-34       Sumas       Apr 10       30       4,872       0       146,174         14-Jul-09       2009-35       Rockles       Nov 09       30       4,872       0       146,174         14-Jul-09       2009-37       Rockles       Dec 09       31       4,872       0       151,046         15-Jul-09       2009-39       Rockles	22-May-09	2009-25			AECO / Sumas	Nov09-Mar10	151	4,872	4,872			735,740		
16-Jun-09       2009-28       AECO       Nov09-Oct12       365       2,436       0       889,222         19-Jun-09       2009-29       Sumas       May10       31       4,872       0       151,046         19-Jun-09       2009-30       Sumas       May10       31       4,872       0       151,046         26-Jun-09       2009-31       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-32       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-33       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-34       Sumas       Apr 10       30       4,872       0       164,174         30-Jun-09       2009-35       Sumas       Apr 10       30       4,872       0       146,174         11-Jul-09       2009-36       Rockies       Nov 09       30       4,872       0       151,046         15-Jul-09       2009-37       Rockies       Dec 09       31       4,872       0       151,046         15-Jul-09       2009-40       Rockies       Nov 09	29-May-09	2009-26			AECO	Nov09-Oct12	365	2,436	0			889,222		
16-Jun-09       2009-28       AECO       Nov09-Oct12       365       2,436       0       889,222         19-Jun-09       2009-29       Sumas       May10       31       4,872       0       151,046         19-Jun-09       2009-30       Sumas       May10       31       4,872       0       151,046         26-Jun-09       2009-31       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-32       Rockies       Nov10-Oct12       0       2,436       0       0       0         30-Jun-09       2009-33       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-34       Sumas       Apr 10       30       4,872       0       146,174         30-Jun-09       2009-35       Sumas       Apr 10       30       4,872       0       146,174         11-Jul-09       2009-36       Rockies       Nov 09       30       4,872       0       151,046         15-Jul-09       2009-37       Rockies       Dec 09       31       4,872       0       151,046         15-Jul-09       2009-39       Rockies       Nov 09	29-May-09	2009-27			Rockies	Nov09-Mar10	151	4,872	4,872			735,740		
19-Jun-09   2009-30   2009-30   2009-31   Rockies   Nov09-Mar10   151   4,872   4,872   4,872   735,740   30-Jun-09   2009-32   Rockies   Nov09-Mar10   151   4,872   4,872   4,872   735,740   30-Jun-09   2009-33   Rockies   Nov09-Mar10   151   4,872   4,872   735,740   30-Jun-09   2009-34   Sumas   Apr 10   30   4,872   0   146,174   30-Jun-09   2009-35   Sumas   Oct 10   31   9,745   0   302,092   313-Jul-09   2009-36   Rockies   Nov 09   30   4,872   0   146,174   31-Jul-09   2009-37   Rockies   Nov 09   30   4,872   0   151,046   315,046   315-Jul-09   2009-38   Rockies   Dec 09   31   4,872   0   151,046   315,046   315-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   151,046   315-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174   315-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174   315-Jul-09   2009-42   Rockies   Nov 09   30   4,872   0   146,174   315-Jul-09   2009-42   Rockies   Nov 09   30   4,872   0   146,174   315-Jul-09   2009-42   Rockies   Nov 09   30   4,872   0   146,174   315-Jul-09   2009-42   Rockies   Nov 09   30   4,872   0   146,174   315-Jul-09   2009-42   Rockies   Nov 09   30   4,872   0   151,046   0   0   0   0   0   0   0   0   0	-	2009-28			AECO	Nov09-Oct12	365	2,436	0					
26-Jun-09       2009-31       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-32       Sumas       Nov10-Oct12       0       2,436       0       0         30-Jun-09       2009-33       Rockies       Nov09-Mar10       151       4,872       4,872       735,740         30-Jun-09       2009-34       Rockies       Nov09-Mar10       30       4,872       0       146,174         30-Jun-09       2009-35       Sumas       Oct 10       31       9,745       0       302,092         13-Jul-09       2009-36       Rockies       Nov 09       30       4,872       0       146,174         14-Jul-09       2009-37       Rockies       Dec 09       31       4,872       0       151,046         15-Jul-09       2009-38       Rockies       Dec 09       31       4,872       0       151,046         15-Jul-09       2009-40       Rockies       Nov 09       30       4,872       0       146,174         15-Jul-09       2009-41       Rockies       Nov 09       30       4,872       0       146,174         15-Jul-09       2009-42       Rockies       Nov 09	19-Jun-09	2009-29			Sumas	May10	31	4,872	0			151,046		
Sumas   Nov10-Oct12   O   2,436   O   O	19-Jun-09	2009-30			Sumas	May10	31	4,872	0			151,046		
Rockies   Nov09-Mar10   151   4,872   4,872   735,740   30-Jun-09   2009-34   Sumas   Apr 10   30   4,872   0   146,174   30-Jun-09   2009-35   Sumas   Oct 10   31   9,745   0   302,092   31-Jun-09   2009-36   Rockies   Nov 09   30   4,872   0   146,174   30-Jun-09   2009-37   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   2009-38   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   2009-38   Rockies   Nov 09   30   4,872   0   151,046   315-Jun-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174   315-Jun-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174   315-Jun-09   2009-41   Sumas   Nov 10-Oct112   0   2,436   0   0   151,046   315-Jun-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046   315-Jun-09   315-	26-Jun-09	2009-31			Rockies	Nov09-Mar10	151	4,872	4,872			735,740		
Rockies   Nov09-Mar10   151   4,872   4,872   735,740     30-Jun-09   2009-34   Sumas   Apr 10   30   4,872   0   146,174     30-Jun-09   2009-35   Sumas   Oct 10   31   9,745   0   302,092     31-Jul-09   2009-36   Rockies   Nov 09   30   4,872   0   146,174     31-Jul-09   2009-37   Rockies   Dec 09   31   4,872   0   151,046     31-Jul-09   2009-38   Rockies   Dec 09   31   4,872   0   151,046     31-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   151,046     31-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174     31-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174     31-Jul-09   2009-41   Rockies   Nov 09   30   4,872   0   146,174     31-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   146,174     31-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0   0   0   0   0   0	30-Jun-09	2009-32			Sumas	Nov10-Oct12	0	2,436	0			0		
Sumas   Oct 10   31   9,745   0   302,092     13-Jul-09   2009-36   Rockies   Nov 09   30   4,872   0   146,174     14-Jul-09   2009-37   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-38   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   146,174     15-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0   0   0		2009-33			Rockies	Nov09-Mar10	151	4,872	4,872			735,740		
13-Jul-09   2009-36   Rockies   Nov 09   30   4,872   0   146,174     14-Jul-09   2009-37   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-38   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Sumas   Nov10-Oct12   0   2,436   0   0     15-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0   0   0	30-Jun-09	2009-34			Sumas	Apr 10	30	4,872	0			146,174		
14-Jul-09   2009-37   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-38   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Sumas   Nov10-Oct12   0   2,436   0   0     15-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0     0-Jan-00   0   0   0   0   0   0     0-Jan-00   0   0   0   0   0   0   0     0-Jan-00   0   0   0   0   0   0   0     0-Jan-00   0   0   0   0   0   0   0   0   0	30-Jun-09	2009-35			Sumas	Oct 10	31	9,745	0			302,092		
14-Jul-09   2009-37   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-38   Rockies   Dec 09   31   4,872   0   151,046     15-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Sumas   Nov10-Oct12   0   2,436   0   0     15-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0     0-Jan-00   0   0   0   0   0   0     0-Jan-00   0   0   0   0   0   0   0     0-Jan-00   0   0   0   0   0   0   0     0-Jan-00   0   0   0   0   0   0   0   0   0	13-Jul-09	2009-36			Rockies		30	4,872	0			146,174		
15-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Sumas   Nov10-Oct12   0   2,436   0   0     15-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0   0   0	14-Jul-09				Rockies	Dec 09	31	4,872	0			151,046		
15-Jul-09   2009-39   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-40   Rockies   Nov 09   30   4,872   0   146,174     15-Jul-09   2009-41   Sumas   Nov10-Oct12   0   2,436   0   0     15-Jul-09   2009-42   Rockies   Dec 09   31   4,872   0   151,046     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0-Jan-00   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0     0-Jan-00   0-Jan-00   0   0   0   0   0   0   0   0   0	15-Jul-09	2009-38			Rockies	Dec 09	31	4,872	0			151,046		
15-Jul-09     2009-41     Sumas     Nov10-Oct12     0     2,436     0     0       15-Jul-09     2009-42     Rockies     Dec 09     31     4,872     0     151,046       0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0       0-Jan-00     0     0     0		2009-39			Rockies	Nov 09	30	4,872	0					
15-Jul-09     2009-41     Sumas     Nov10-Oct12     0     2,436     0     0       15-Jul-09     2009-42     Rockies     Dec 09     31     4,872     0     151,046       0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0       0-Jan-00     0     0     0									0					
0-Jan-00     0-Jan-00     0     0     0     0     0     0       Grand Total     263,112     73,087     29,235     0     33,683,247	15-Jul-09	2009-41			Sumas	Nov10-Oct12	0	2,436	0					
0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0     0       0-Jan-00     0-Jan-00     0     0     0     0     0     0       Grand Total     263,112     73,087     29,235     0     33,683,247	15-Jul-09	2009-42			Rockies	Dec 09	31	4,872	0			151,046		
0-Jan-00       0-Jan-00       0		0-Jan-00					0		0			· ·		
0-Jan-00       0-Jan-00       0	0-Jan-00	0-Jan-00			0	0	0	0	0			0		
0-Jan-00       0-Jan-00       0					0	0	0	0	0			0		
0-Jan-00 0-Jan-00 0 0 0 0 0 0 0 Grand Total 0 263,112 73,087 29,235 0 33,683,247					0	0	0	0	0			0		
Grand Total         263,112         73,087         29,235         0         33,683,247					0		0	0				0		
	Grand Total							263,112	73,087	29,235	0	33,683,247		
	-										iel	_	Check:	\$0

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

### V.3.a Customer count and revenue by month and class

Total
Oregon
Washington
Total Residential
Total Commercial
Total Industrial
Total Interruptible
Total Transportation - Commercial Firm
Total Transportation - Industrial Firm
Total Transportation - Interruptible

Customer Cnt	Revenue	Customer Cnt	Revenue	Customer Cnt	Revenue
Aug-08	Aug-08	Sep-08	Sep-08	Oct-08	Oct-08
655,281	\$ 33,495,182.62	654,965	\$ 35,323,124.34	656,536	\$ 45,539,084.25
588,517	30,353,985.28	588,271	32,053,490.42	589,596	41,310,889.22
66,764	3,141,197.34	66,694	3,269,633.92	66,940	4,228,195.03
592,702	14,497,999.45	592,419	15,431,086.54	593,939	22,043,558.33
61,639	10,120,954.19	61,605	10,558,512.05	61,659	13,417,940.93
627	2,860,805.19	631	3,227,749.86	628	3,358,499.94
179	4,860,091.85	178	4,938,548.63	178	5,515,251.59
2	4,039.89	2	4,074	-	4,699.94
64	508,896.56	63	504,351	64	519,781.43
68	642,395.49	67	658,802	68	679,352.09

### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

### V.3.a Customer count and revenue by month and class

Total
Oregon
Washington
Total Residential
Total Commercial
Total Industrial
Total Interruptible
Total Transportation - Commercial Firm
Total Transportation - Industrial Firm
Total Transportation - Interruptible

Customer Cnt	Revenue	Customer Cnt	Revenue	Customer Cnt	Revenue
Nov-08	Nov-08	Dec-08	Dec-08	Jan-09	Jan-09
659,629	\$ 73,484,819.80	662,341	\$ 130,417,558.48	664,603	\$ 175,692,929.00
592,401	66,459,981.53	594,937	117,834,094.87	596,883	157,889,846.11
67,228	7,024,838.27	67,404	12,583,463.61	67,720	17,803,082.89
596,918	40,159,574.08	599,285	78,630,396.90	601,114	107,514,158.17
61,772	21,391,630.97	62,115	39,061,202.27	62,520	53,798,379.65
621	3,982,452.36	624	5,042,198.35	632	5,292,545.93
183	6,770,529.36	181	6,470,594.70	191	7,902,634.69
-	6,988.91	-	8,127.27	-	12,978.64
63	538,364.31	65	571,073.58	66	514,467.39
69	635,279.81	68	633,965.41	76	657,764.53

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

### V.3.a Customer count and revenue by month and class

Γotal	
Oregon	
Washington	
Total Residential	
Total Commercial	
Total Industrial	
Total Interruptible	
Total Transportation - Commercial Firm	
Total Transportation - Industrial Firm	
Total Transportation - Interruptible	

Customer Cnt	Revenue	Customer Cnt	Revenue	Customer Cnt	Revenue
Feb-09	Feb-09	Mar-09	Mar-09	Apr-09	Apr-09
665,240	\$152,164,951.23	665,387	\$ 135,632,676.08	664,965	\$ 104,955,689.28
597,487	136,339,170.04	597,525	121,402,665.93	597,091	94,274,698.44
67,753	15,825,781.19	67,862	14,230,010.15	67,874	10,680,990.84
601,760	92,654,241.94	601,917	80,944,062.39	601,614	61,806,138.36
62,551	46,764,951.27	62,538	41,580,207.54	62,423	32,203,809.68
611	4,840,132.50	616	4,816,171.64	612	3,863,006.20
184	6,864,399.09	180	7,171,522.01	169	5,958,864.75
-	2,301.23	-	7,831.86	-	7,551.73
62	410,161.93	63	477,699.55	67	467,823.35
68	628,763.27	70	635,181.09	77	648,495.21

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

### V.3.a Customer count and revenue by month and class

Total
Oregon
Washington
Total Residential
Total Commercial
Total Industrial
Total Interruptible
Total Transportation - Commercial Firm
Total Transportation - Industrial Firm
Total Transportation - Interruptible

Customer Cnt	Revenue	Customer Cnt	Revenue	Customer Cnt	Revenue
May-09	May-09	Jun-09	Jun-09	Jul-09	Jul-09
663,834	\$ 69,399,410.05	662,475	\$ 8,538,636.72	660,716	\$ 37,181,986.04
596,053	62,426,774.92	594,832	8,303,048.22	593,183	33,316,811.66
67,781	6,972,635.13	67,643	235,588.50	67,533	3,865,174.38
600,706	38,717,712.22	599,614	2,418,107.58	598,299	17,111,222.57
62,199	20,935,788.64	61,935	1,635,891.42	61,496	11,555,639.98
608	3,333,293.38	608	1,195,726.17	601	2,815,372.81
171	5,331,958.47	171	1,989,675.28	171	4,587,753.66
-	7,301.16	-	7,601.12	-	8,377.27
68	438,503.90	67	535,688.22	67	449,329.12
79	634,852.28	77	755,946.93	79	654,290.63

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

V.3.b

Historical (five years) and forecasted (one year ahead) sales system physical peak demand \*

	2009/2010 Forecasted [1]	2008 [2]	2007 [2]	2006 [2]
System peak demand (therms)	9,174,643	8,363,000	7,344,000	7,401,000

<sup>\* 3</sup> years provided per OPUC Order No. 09-263 / 09-248

- [1] Normalized peak as used for purposes of the Annual PGA Filing
- [2] Source: NWN Annual Report Total Peak Delivery

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

V.3.c Historical (five years) and forecasted (one year ahead) sales system physical annual demand\*

	Forecasted				
Gas Year *	2009/2010	2008/2009	2007/2008	2006/2007	
Annual Demand (therms)	721,775,790	790,275,583	840,622,740	787,223,062	

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<sup>\* 3</sup> years provided per OPUC Order No. 09-263 / 09-248

### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

V.3.d.

Historical (five years), and forecasted (one year ahead) sales system physical demand for each of the following:\*

1. Annual for each customer class

	Forecasted			
Gas Year *	2009/2010	2008/2009 [1]	2007/2008	2006/2007
Residential (therms)	400,287,324	418,142,545	435,212,254	395,702,901
Commercial (therms)	244,323,824	257,315,400	267,646,613	248,760,365
Industrial Firm (therms)	22,977,295	40,062,127	47,873,776	53,828,063
Industrial Interruptible (therms)	54,187,347	74,755,511	89,687,581	88,835,801

<sup>\* 3</sup> years provided per OPUC Order No. 09-263 / 09-248

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

V.3.d. Historical (five years), and forecasted (one year ahead) sales system

physical demand for each of the following:\*

2. Annual and monthly baseload

	Forecasted			
Gas Year *	2009/2010	2008/2009	2007/2008	2006/2007
November	21,769,560	24,413,595	25,070,006	26,190,648
December	22,495,212	25,837,505	25,827,339	26,743,482
January	22,495,212	24,340,768	25,673,977	26,116,496
February	20,318,256	23,164,969	24,358,834	25,455,856
March	22,495,212	24,005,049	25,171,242	25,226,067
April	21,769,560	23,443,584	24,947,798	24,684,614
May	22,495,212	23,943,287	24,495,722	24,762,960
June	21,769,560	23,353,778	25,098,765	25,393,815
July	22,495,212	23,763,006	25,062,882	25,303,961
August	22,495,212	23,945,595	24,974,191	25,381,941
September	21,769,560	24,008,379	25,266,815	25,298,427
October	22,495,212	24,569,322	24,441,090	24,878,078
Annual	264,862,981	288,788,839	300,388,661	305,436,346

<sup>\* 3</sup> years provided per OPUC Order No. 09-263 / 09-248

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

V.3.d. Historical (five years), and forecasted (one year ahead) sales system physical demand for each of the following:\*

### 3. Annual and monthly non-baseload

	Forecasted			
Gas Year *	2009/2010	2008/2009 [1]	2007/2008	2006/2007
November	60,323,016	32,468,766	43,762,463	38,998,713
December	89,457,953	67,826,619	79,693,312	77,658,460
January	87,579,842	106,444,034	101,915,519	103,367,842
February	69,824,583	90,981,847	99,041,078	93,338,223
March	57,272,037	78,992,113	68,842,326	62,999,517
April	35,983,926	55,041,994	67,165,395	41,287,841
May	17,226,260	26,592,019	38,226,764	27,259,608
June	5,847,746	8,258,527	17,272,557	10,263,521
July	113,502	2,178,558	5,532,941	3,248,045
August	169,697	541,667	1,811,539	1,654,431
September	3,918,792	3,540,249	3,328,953	3,096,795
October	29,195,455	28,620,354	13,438,716	18,517,788
Annual	456,912,810	501,486,744	540,031,563	481,690,784

<sup>\* 3</sup> years provided per OPUC Order No. 09-263 / 09-248

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### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

V.3.d. Historical (five years), and forecasted (one year ahead) sales

system physical demand for each of the following: \*

4. Annual and monthly for the geographic regions utilized by each LDC in its most recent IRP or IRP update

<sup>\* 3</sup> years provided per OPUC Order No. 09-263 / 09-248

Forecasted	į
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2009/2010	Albany	Astoria	The Dalles (OR)	Eugene	Newport/LC	Portland	Salem	Vancouver
November	4,740,251	1,161,654	885,967	5,587,356	840,129	49,787,339	11,098,750	7,991,130
December	6,411,398	1,543,690	1,216,605	7,392,563	1,070,921	68,476,806	14,939,417	10,901,765
January	6,201,630	1,523,801	1,205,919	7,167,101	1,067,315	67,772,606	14,436,560	10,700,121
February	5,069,121	1,315,734	971,101	5,906,064	921,279	55,262,778	11,961,242	8,735,520
March	4,629,808	1,272,174	809,512	5,397,897	947,216	48,276,985	10,898,834	7,534,822
April	3,463,366	1,004,378	562,599	4,088,754	788,098	34,225,792	8,110,975	5,509,523
May	2,427,527	752,735	391,435	3,050,582	634,566	22,963,086	5,626,373	3,875,168
June	1,705,932	559,614	296,445	2,255,275	503,894	15,517,768	3,937,737	2,840,641
July	1,328,705	452,638	262,864	1,881,408	442,489	12,628,096	3,220,236	2,392,277
August	1,342,069	445,028	266,553	1,906,674	438,905	12,602,019	3,259,157	2,404,504
September	1,530,434	507,619	303,098	2,088,379	479,676	14,329,700	3,693,594	2,755,853
October	3,011,674	831,546	569,779	3,731,876	661,371	30,446,174	7,247,076	5,191,172
Annual	41,861,916	11,370,610	7,741,878	50,453,931	8,795,859	432,289,148	98,429,952	70,832,496

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2008/2009	Albany	Astoria	The Dalles (OR)	Eugene	Newport/LC	Portland	Salem	Vancouver
November	3,624,754	842,463	640,959	4,421,504	677,435	32,913,429	8,348,655	5,413,165
December	5,556,185	1,378,466	976,214	6,322,720	980,942	56,571,715	12,925,515	8,952,368
January	7,223,977	1,825,939	1,484,627	7,980,532	1,299,523	80,856,761	17,451,986	12,661,456
February	6,522,841	1,556,524	1,251,678	7,558,121	1,142,165	69,875,673	15,135,892	11,103,923
March	6,071,184	1,535,991	1,143,546	6,702,613	1,081,079	62,235,214	14,255,558	9,971,978
April	4,645,149	1,288,499	862,128	5,374,562	1,024,022	47,093,604	10,846,813	7,350,803
May	3,021,243	874,917	562,286	3,971,888	704,416	29,445,167	7,272,580	4,682,811
June	1,929,893	628,927	374,076	2,717,956	581,767	17,872,542	4,573,498	2,933,646
July	1,607,519	518,550	344,447	2,323,798	611,160	14,098,105	4,026,192	2,411,793
August	1,509,636	443,470	299,569	2,145,717	437,364	13,533,991	3,606,041	2,511,474
September	1,704,767	505,248	337,579	2,338,298	477,063	15,280,715	4,052,888	2,852,069
October	3,184,687	824,404	604,113	3,973,896	654,516	31,137,298	7,579,062	5,231,700
Annual	46,601,835	12,223,398	8,881,222	55,831,605	9,671,453	470,914,213	110,074,680	76,077,186
2007/2008	Albany	Astoria	The Dalles (OR)	Eugene	Newport/LC	Portland	Salem	Vancouver
November	4,182,195	1,020,306	714,633	5,328,764	794,380	40,443,798	9,916,379	6,432,017
December	6,111,505	1,434,454	1,148,124	7,266,264	1,132,170	64,040,525	14,279,473	10,108,139
January	7,525,889	1,818,000	1,362,710	8,906,960	1,334,030	76,765,888	17,669,672	12,206,347
February	7,275,281	1,727,923	1,310,289	8,767,209	1,280,677	74,546,238	16,944,082	11,548,213
March	5,806,592	1,423,964	982,372	7,207,188	1,022,585	55,796,872	13,321,732	8,452,263
April	5,536,384	1,496,823	898,205	7,094,652	1,095,624	54,452,628	12,940,164	8,598,713
May	3,831,143	996,118	616,226	5,055,033	779,567	36,821,140	8,801,220	5,822,039
June	2,623,616	779,248	414,955	3,645,849	614,661	24,355,810	5,994,332	3,942,849
July	1,975,877	592,231	347,030	2,691,864	548,150	16,945,575	4,496,352	2,998,745
August	1,788,317	539,314	327,890	2,597,000	580,394	14,184,574	4,226,755	2,541,487
September				0.055.405	400 700	45 444 000	4 000 500	2 665 670
	1,879,260	491,798	338,625	2,655,135	496,788	15,144,990	4,923,500	2,665,670
October	1,879,260 2,495,259	491,798 683,858	•	2,655,135 3,293,375	610,483	20,928,007	4,923,500 5,890,615	3,548,062

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2006/2007	Albany	Astoria	The Dalles (OR)	Eugene	Newport/LC	<b>Portland</b>	Salem	Vancouver
November	4,034,228	933,260	652,611	4,892,941	762,841	38,509,913	9,234,927	6,168,643
December	6,135,144	1,419,027	1,139,427	6,858,605	1,068,942	63,676,035	14,232,857	9,871,907
January	7,407,237	1,704,833	1,506,828	8,557,052	1,255,834	79,077,437	17,536,028	12,439,091
February	6,782,072	1,624,244	1,299,240	8,697,719	1,145,151	71,981,839	16,101,922	11,161,895
March	5,270,516	1,331,447	1,019,044	6,573,081	951,132	52,537,651	12,242,601	8,300,115
April	4,030,552	1,069,544	671,423	5,196,638	902,369	38,661,593	9,485,498	5,954,841
May	3,282,925	904,218	503,315	4,340,822	711,752	30,095,182	7,622,525	4,561,830
June	2,324,876	658,575	402,560	3,266,164	631,874	20,099,683	5,107,270	3,166,337
July	1,862,146	535,992	353,273	2,666,890	524,643	15,625,445	4,356,279	2,627,340
August	1,809,024	468,414	250,531	2,581,508	454,717	14,788,546	4,150,622	2,533,010
September	1,882,860	472,501	413,488	2,592,907	459,875	15,130,819	4,723,060	2,719,714
October	2,738,939	669,244	471,650	3,732,974	590,570	24,661,298	6,485,520	4,045,675
Annual	47,560,519	11,791,299	8,683,390	59,957,301	9,459,700	464,845,441	111,279,109	73,550,398

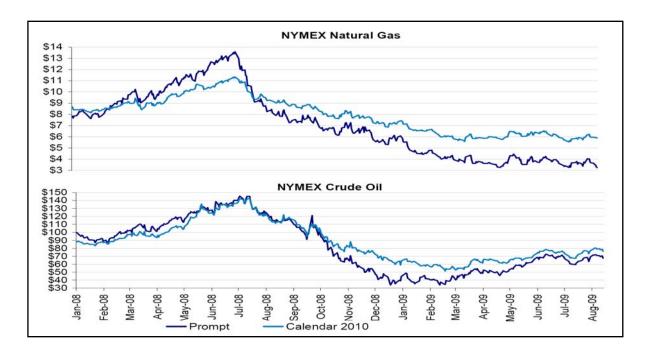
V.3.d.4 Page 23

### Northwest Natural Gas Company PGA Filing 2009-2010 Oregon PGA

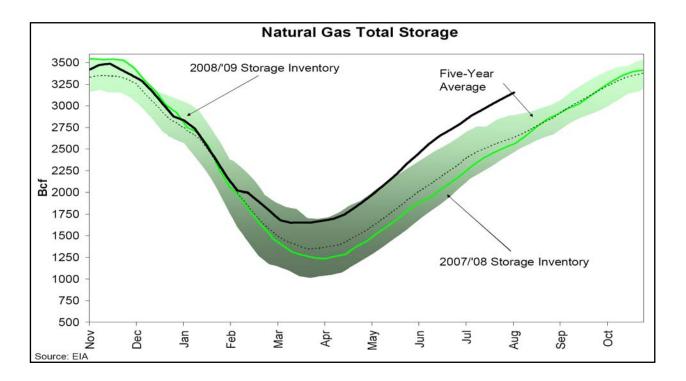
#### V.4 Market Information:

General historical and forecasted (one year ahead) conditions in the national and regional physical and financial natural gas purchase markets. This should include descriptions of each major supply point from which the LDC physically purchases and the major factors affecting supply, prices, and liquidity at those points.

Over the past 12 months, we have seen an unprecedented amount of oil price volatility. Crude oil (WTI) monthly spot prices went as high as \$133/barrel in June 2008, then tumbled to \$41/barrel in December. More recent oil prices have ranged between \$60 and \$75/barrel. Natural gas prices tended to track the swings in oil prices, though the correlation has been very weak at times. The natural gas (Henry Hub) spot price averaged \$9.13/Mcf in 2008, though like oil, this average does not tell the story of the wild swings that gas prices experienced through 2008 and into 2009. A graphical depiction of the course of natural gas and oil prices since the beginning of 2008 is shown below.

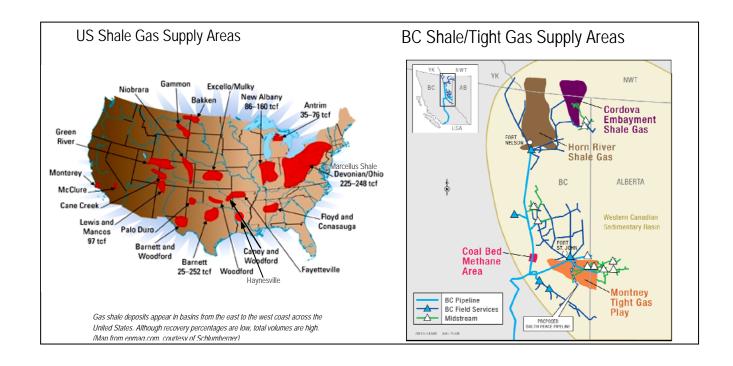


Natural gas storage levels slid below the EIA 5-year average for the first part of 2008 and then turned upward around August and stayed above the average through the end of 2008. Starting in April 2009, weekly storage levels have consistently been close to, if not at, all-time record highs for the amount of gas in storage across the country. In part this is because production growth from shale reserves has offset some if not all of the Gulf Coast production decline that resulted from hurricane damage in the latter part of 2008. It also reflects lower demand due to the "Great Recession" gripping the country, which also led to a very high level of gas remaining in storage at the end of the past heating season. Weekly storage levels through early August 2009 are depicted in the following chart.

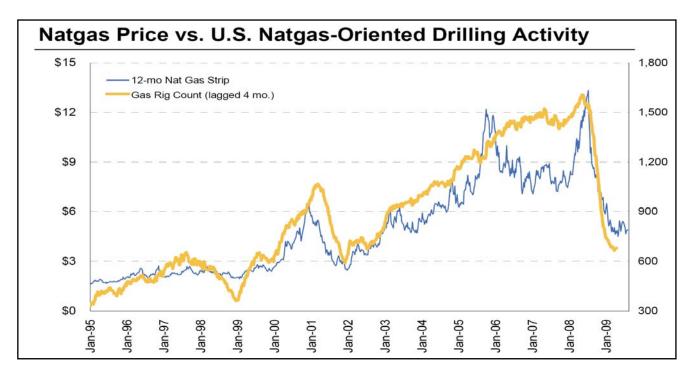


A topic of frequent discussion over the past year has been the resurgence of domestic natural gas production. Once thought to have peaked and be inexorably in decline, domestic gas production has increased and led some to say that the U.S. will be "awash" with gas supplies in the future. These predictions center on the rapid emergence of non-conventional gas production from tight sands and especially shale gas deposits. While much more expensive than conventional gas production, last year's regime of higher prices spurred development of this resource, bringing more gas on line than previously thought technically and/or economically feasible. Shale gas can be found throughout the U.S. and Canada as shown below.

V.4 Page 25



However, the sharp drop in natural gas prices has also taken a toll on drilling activity, as shown in the next graph.



V.4 Page 26

As with the rest of the industry, NW Natural is monitoring these trends with great interest. While the potential for higher gas production rates seemed undeniable less than a year ago, the higher cost of these new ventures do not seem to be supported by the current market, which has halted the downward movement in prices that consumers have been enjoying in recent months. Or as stated in last year's testimony "...if market prices do begin to move downward, there are offsetting forces that could force a rapid rebound, including the cessation of development activities as well as a drop in LNG imports due to unfavorable pricing." Certainly supply development activities are being curtailed, but the timing and magnitude of the expected rebound in prices depends primarily on the eventual economic recovery.

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#### V.5 Data Interpretation

If not included in the PGA filing please explain the major aspects of the LDC's analysis and interpretation of the data and information described in (1) and (2) above, the most important conclusions resulting from that analysis and interpretation, and the application of these conclusions in the development of the current PGA portfolio.

See Exhibit A of NW Natural's PGA Filing, OPUC Advice No. 09-12.

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V.5

#### V.6 Credit Worthiness Standards

A copy of the Board or officer approved credit worthiness standards in place for the period in which the current gas supply portfolio was developed, along with full documentation for these standards. Also, a copy of the credit worthiness standards actually applied in the purchase of physical gas and entering into financial hedges. If the two are one and the same, please indicate so.

#### IV. Credit Risk Management

The following steps are taken by the Front, Mid and Back Offices to provide credit risk management:

	Procedure	Responsible Office
1	Analyzes the counterparty's profile to determine credit risk tolerances.	Mid Office
2	Sets counterparty credit limits in accordance with company policy (see Exhibit "E" of the Gas Supply Risk Management Policies).	Mid Office
3	Monitors credit exposure and coordinates with the Front Office to mitigate risk.	Mid Office
4	If the credit exposure amount exceeds the counterparty credit limit, verifies the limit violation.	Mid Office
5	Notifies Front Office Executive of limit violations in physical transactions, and Mid Office Executive of limit violations in financial transactions.	Mid Office
6	Determines any appropriate action in response to physical transaction violations.	Front Office Executive
7	Communicates instructions for dealing with physical transaction violations to Front Office and submits copies of the instructions to the Mid Office.	Front Office Executive
8	Determines any appropriate action in response to financial transaction violations.	Mid Office Executive
9	Communicates instructions for dealing with financial transaction violations to Front Office and submits copies of the instructions to the Mid Office.	Mid Office Executive
10	Calculates and analyzes various credit risk metrics to better understand the current and potential risks in the portfolio.	Mid Office
11	Calculates and records appropriate credit reserves on a monthly basis.	Mid Office
12	Reviews credit limits at least twice a year, and additionally as needed, to assess whether changes should be made.	Mid Office
13	Monitors news articles, bankruptcy filings, legal actions, etc. on a daily basis for all established counterparties.	Front Office
	·	Mid Office
ii		Back Office

Source: NW Natural General Procedure G-72; Physical and financial Commodity Transaction Procedures Effective March 28, 2005; Last updated January 5, 2008

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#### V.6 Credit Worthiness Standards

A copy of the Board or officer approved credit worthiness standards in place for the period in which the current gas supply portfolio was developed, along with full documentation for these standards. Also, a copy of the credit worthiness standards actually applied in the purchase of physical gas and entering into financial hedges. If the two are one and the same, please indicate so.

See Appendix 'A', Attachment 1 to V.6 - CONFIDENTIAL

## APPENDIX A ATTACHMENT 1 to V.6 CONFIDENTIAL



**SUPPORTING MATERIALS** 

TO

**PGA FILING GUIDELINES** 

**DOCKET UM 1286** 

**OPUC ORDER NOS. 09-263 / 09-248** 

Purchased Gas Cost and Technical Adjustments to Rates

NWN Advice No. OPUC 09-12

## APPENDIX 'A' Attachment 1 to V.6 - REDACTED HIGHLY CONFIDENTIAL CONFIDENTIAL

# NW NATURAL Gas Supply Risk Management Policies Index No. 110

January, 2007

Derivatives Policy: Updated September 2006

Physical Gas Commodity Transactions Policy: Updated January 2007

#### V.7 Storage

- a) Type of storage (e.g., depleted field, salt dome).
- b) Location of each storage facility.
- c) Total level of storage in terms of deliverability and capacity held during the gas year.

NW Natural storage withdrawals in the Purchased Gas Adjustment (PGA) filing for 2009-2010 are produced by stochastic modeling. As noted in the Integrated Resource Plan (IRP), the Company's Gas Supply Department utilizes the program SENDOUT® to perform its dispatch modeling. Based on expected conditions, this modeling provides guidance to the department in how it anticipates dispatching from various pipeline supplies and storage facilities. The objective is to ensure reliable service during the heating season on an aggregate system-wide basis and, at the same time, achieve the maximum economic benefit from seasonal price differences and varying gas delivery terms. With the assistance of SENDOUT®, resource portfolios are developed with the best combination of expected costs and associated risks and uncertainties for the utility and its customers. The system is operated as an integrated whole and costs are apportioned accordingly.

NW Natural's heavy reliance on storage gas requires examination of the Company's ability to meet peaking loads. SENDOUT® models an ideal operation profile for each storage facility to meet core customer demand based on historical heating season patterns.

Operational capabilities of each storage facility are factored into the analysis. Storage resources modeled for the 2009-2010 PGA included the following:

#### Firm Storage Resources as of November 2009

Facility	Max. Daily Rate (Dth/day)	Max. Seasonal Level (Dth)	Termination Date		
Jackson Prairie:	(Billiady)	(211)			
SGS-2F	46,030	1,120,288	Upon 1-Year Notice		
TF-2 (redelivery service)	32,624	839,046	Upon 1-Year Notice		
TF-2 (redelivery service)	13,406	281,242	Upon 1-Year Notice		
Plymouth LNG:					
LS-1	60,100	478,900	Upon 1-Year Notice		
TF-2 (redelivery service)	60,100	478,900	Upon 1-Year Notice		
Total Firm Off-system Storage:					
Withdrawal/Vaporization	106,130	1,599,188			
TF-2 Redelivery	106,130	1,599,188			
Firm On-System Storage Plants:					
Mist (reserved for core)	250,000	9,420,270	n/a		
Portland LNG Plant	120,000	600,000	n/a		
Newport LNG Plant	<u>60,000</u>	<u>1,000,000</u>	n/a		
Total On-System Storage	430,000	11,020,270			
Total Firm Storage Resource	536,130	12,619,458			

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Based on Mist core and interstate capacity allocations, Sendout recommended the following monthly core activity from that storage facility during 2009-2010 to meet the stated objectives in the IRP:

2009-2010	2009 Mist Storage Allocation							
Dth	Core	Interstate	Total					
Working Gas	9,420,270	6,522,580	15,942,850					
Withdrawal (Dth/day)	250,000	269,200	519,200					

2009-2010	Mist PGA
Month	Withdrawal
November	469,939
December	1,964,401
January	4,059,604
February	3,299,122
March	1,558,252
April	44,396
May	-
June	-
July	-
August	-
September	-
October	-

V.7.a-c Page 32

- V.7.d Historical (five years) gas supply delivered to storage, both annual total and by month.
- Historical (five years) gas supply withdrawn from storage, both annual total and by month. V.7.e

#### NORTHWEST NATURAL GAS COMPANY

All Sites Therms Summary (Gasco, Newport, Jackson Prairie, Plymouth, Mist) ACCOUNT NO. (164.21, 164.23, 164.22, 164.16, 164.12)

	BEGINNING BALANCE			ISSUES (Withdrawals)		LIQUEFIED	LIQUEFIED INJECTIONS (De			Deliveries) <u>ENDING BALANCE</u>			
MONTH	THERMS	AMOUNT	RATE	THERMS	AMOUNT	THERMS		AMOUNT	RATE	THERMS	AMOUNT	RATE	
Dec-04									-	122,270,766 \$	54,383,996.84	0.44478	
		_						_					
Jan-05	122,270,766 \$	54,383,996.84	0.44478	41,203,077 \$	18,472,351.85	6,377,879	\$	2,797,036.71	0.43855	87,445,568 \$	38,708,681.70	0.44266	
FEB	87,445,568 \$	38,708,681.70	0.44266	27,877,221 \$	12,308,754.89	1,117,160	\$	606,899.05	0.54325	60,685,507 \$	27,006,825.86	0.44503	
MAR	60,685,507 \$	27,006,825.86	0.44503	13,402,702 \$	5,968,337.92	4,822,400	\$	2,781,280.71	0.57674	52,105,205 \$	23,819,768.65	0.45715	
APR	52,105,205 \$	23,819,768.65	0.45715	24,411,118 \$	10,879,747.56	2,640,702	\$	1,807,310.58	0.68441	30,334,789 \$	14,747,331.67	0.48615	
MAY	30,334,789 \$	14,747,331.67	0.48615	5,650,680 \$	2,695,555.44	12,296,816	\$	7,703,968.49	0.62650	36,980,925 \$	19,755,744.72	0.53421	
JUN	36,980,925 \$	19,755,744.72	0.53421	3,863,370 \$	2,183,211.31	19,670,654	\$	12,192,118.81	0.61981	52,788,209 \$	29,764,652.22	0.56385	
JUL	52,788,209 \$	29,764,652.22	0.56385	1,224,010 \$	724,858.72	38,439,609	\$	23,367,872.93	0.60791	90,003,808 \$	52,407,666.43	0.58228	
AUG	90,003,808 \$	52,407,666.43	0.58228	482,112 \$	281,435.79	21,523,928	\$	14,766,749.57	0.68606	111,045,624 \$	66,892,980.21	0.60239	
SEP	111,045,624 \$	66,892,980.21	0.60239	208,406 \$	118,393.47	20,997,893	\$	20,226,464.42	0.96326	131,835,111 \$	87,001,051.16	0.65992	
OCT	131,835,111 \$	87,001,051.16	0.65992	4,373,083 \$	2,830,619.23	15,320,883	\$	17,255,139.72	1.12625	142,782,911 \$	101,425,571.65	0.71035	
NOV	142,782,911 \$	101,425,571.65	0.71035	12,187,672 \$	8,652,795.12	6,795,869	\$	6,489,344.74	0.95490	137,391,108 \$	99,262,121.27	0.72248	
DEC	137,391,108 \$	99,262,121.27	0.72248	41,587,528 \$	30,478,415.34	6,447,660	\$	8,189,402.06	1.27014	102,251,240 \$	76,973,107.99	0.75278	
	TOTAL 2005 ACTIV	ITY	_	176,470,979	95,594,476.64	156,451,453		118,183,587.79					
		_	-										
Jan 06	102,251,240 \$	76,973,107.99	0.75278	18,958,017 \$	14,644,496.32	1,712,020	\$	1,537,405.03	0.89801	85,005,243 \$	63,866,016.70	0.75132	
Feb	85,005,243 \$	63,866,016.70	0.75132	25,301,163 \$	19,685,349.69	1,260,790	\$	912,186.10	0.72350	60,964,870 \$	45,092,853.11	0.73965	
Mar	60,964,870 \$	45,092,853.11	0.73965	16,380,123 \$	12,714,357.74	5,744,820	\$	3,500,585.93	0.60935	50,329,567 \$	35,879,081.30	0.71288	
Apr	50,329,567 \$	35,879,081.30	0.71288	8,029,038 \$	5,805,872.06	3,712,467	\$	2,413,036.77	0.64998	46,012,996 \$	32,486,246.01	0.70602	
May	46,012,996 \$	32,486,246.01	0.70602	2,127,418 \$	1,433,491.41	31,242,513	\$	18,049,315.16	0.57772	75,128,091 \$	49,102,069.76	0.65358	
Jun	75,128,091 \$	49,102,069.76	0.65358	1,536,935 \$	990,817.43	30,380,924	\$	17,478,793.68	0.57532	103,972,080 \$	65,590,046.01	0.63084	
Jul	103,972,080 \$	65,590,046.01	0.63084	1,228,413 \$	780,336.37	19,668,264	\$	12,257,997.01	0.62324	122,411,931 \$	77,067,706.65	0.62958	
Aug	122,411,931 \$	77,067,706.65	0.62958	336,093 \$	210,229.38	12,172,288	\$	7,881,693.44	0.64751	134,248,126 \$	84,739,170.71	0.63121	
Sep	134,248,126 \$	84,739,170.71	0.63121	412,841 \$	248,185.88	14,724,165	\$	8,382,441.08	0.56930	148,559,450 \$	92,873,425.91	0.62516	
Oct	148,559,450 \$	92,873,425.91	0.62516	8,524,419 \$	5,535,541.34	-	\$	-	-	140,035,031 \$	87,337,884.57	0.62369	
Nov	140,035,031 \$	87,337,884.57	0.62369	17,928,294 \$	11,288,271.47	5,991,010	\$	3,707,869.38	0.61891	128,097,747 \$	79,757,482.48	0.62263	
Dec	128,097,747 \$	79,757,482.48	0.62263	24,118,160 \$	14,846,060.55	6,030,810	\$	3,664,130.91	0.60757	110,010,397 \$	68,575,552.84	0.62336	
TOTAL 2006 ACTIVITY				124,880,914	88,183,009.64	132,640,071		79,785,454.49					

V.7.d-e Page 33

- V.7.d Historical (five years) gas supply delivered to storage, both annual total and by month.
- Historical (five years) gas supply withdrawn from storage, both annual total and by month. V.7.e

#### NORTHWEST NATURAL GAS COMPANY

All Sites Therms Summary (Gasco, Newport, Jackson Prairie, Plymouth, Mist) ACCOUNT NO. (164.21, 164.23, 164.22, 164.16, 164.12)

	BEGINNING BALANCE			ISSUES (With	ISSUES (Withdrawals)		<u>LIQUEFIED</u> INJECTIONS (De			eliveries) <u>ENDING BALANCE</u>			
MONTH	THERMS	AMOUNT	RATE	THERMS	AMOUNT	THERMS		AMOUNT	RATE	THERMS	AMOUNT	RATE	
Jan-07	110,010,397 \$	68,575,552.84	0.62336	32,747,989 \$	20,502,938.66	2,947,690	\$	1,721,085.84	0.58388	80,210,098 \$	49,793,700.02	0.62079	
FEB	80,210,098 \$	49,793,700.02	0.62079	21,665,609 \$	13,340,971.41	1,868,810	\$	1,276,550.79	0.68308	60,413,299 \$	37,729,279.40	0.62452	
MAR	60,413,299 \$	37,729,279.40	0.62452	5,716,652 \$	3,635,769.46	12,732,030	\$	7,734,741.02	0.60750	67,428,677 \$	41,828,250.96	0.62033	
APR	67,428,677 \$	41,828,250.96	0.62033	17,999,410 \$	11,024,026.68	6,693,218	\$	3,500,379.10	0.52297	56,122,485 \$	34,304,603.38	0.61125	
MAY	56,122,485 \$	34,304,603.38	0.61125	7,676,136 \$	4,607,187.63	27,758,648	\$	14,102,546.19	0.50804	76,204,997 \$	43,799,961.94	0.57476	
JUN	76,204,997 \$	43,799,961.94	0.57476	2,290,199 \$	1,267,185.11	22,587,207	\$	10,082,107.84	0.44636	96,502,005 \$	52,614,884.67	0.54522	
JUL	96,502,005 \$	52,614,884.67	0.54522	938,890 \$	518,930.35	27,986,126	\$	14,749,934.89	0.52704	123,549,241 \$	66,845,889.21	0.54105	
AUG	123,549,241 \$	66,845,889.21	0.54105	934,511 \$	518,496.94	22,279,127	\$	11,416,040.83	0.51241	144,893,857 \$	77,743,433.10	0.53655	
SEP	144,893,857 \$	77,743,433.10	0.53655	1,018,869 \$	561,305.39	11,414,527	\$	2,424,935.55	0.21244	155,289,515 \$	79,607,063.26	0.51264	
OCT	155,289,515 \$	79,607,063.26	0.51264	14,791,065 \$	7,301,584.37	2,198,039	\$	724,296.55	0.32952	142,696,489 \$	73,029,775.44	0.51178	
NOV	142,696,489 \$	73,029,775.44	0.51178	3,305,990 \$	1,423,564.17	4,497,822	\$	2,768,087.19	0.61543	143,888,321 \$	74,374,298.46	0.51689	
DEC	143,888,321 \$	74,374,298.46	0.51689	14,553,312 \$	7,322,402.53	5,864,210	\$	4,026,896.20	0.68669	135,199,219 \$	71,078,792.13	0.52573	
	TOTAL 2007 ACTIVI	ITY		123,638,632	72,024,362.70	148,827,454		74,527,601.99	_				
		_											
Jan 08	135,199,219 \$	71,078,792.13	0.52573	42,682,544 \$	22,727,144.60	3,402,230	\$	2,562,147.29	0.75308	95,918,905 \$	50,913,794.82	0.53080	
Feb	95,918,905 \$	50,913,794.82	0.53080	29,833,245 \$	15,663,187.27	3,037,860	\$	2,358,605.97	0.77640	69,123,520 \$	37,609,213.52	0.54409	
Mar	69,123,520 \$	37,609,213.52	0.54409	29,308,951 \$	16,697,534.41	783,760	\$	651,398.76	0.83112	40,598,329 \$	21,563,077.87	0.53113	
Apr	40,598,329 \$	21,563,077.87	0.53113	14,741,559 \$	9,004,018.90	5,468,770	\$	5,261,381.50	0.96208	31,325,540 \$	17,820,440.47	0.56888	
May	31,325,540 \$	17,820,440.47	0.56888	1,394,242 \$	1,259,289.68	7,377,193	\$	7,072,723.41	0.95873	37,308,491 \$	23,633,874.20	0.63347	
Jun	37,308,491 \$	23,633,874.20	0.63347	2,575,879 \$	2,082,625.25	17,920,700	\$	16,021,216.64	0.89401	52,653,312 \$	37,572,465.59	0.71358	
Jul	52,653,312 \$	37,572,465.59	0.71358	2,389,833 \$	2,600,403.22	29,495,668	\$	27,744,517.14	0.94063	79,759,147 \$	62,716,579.51	0.78632	
Aug	79,759,147 \$	62,716,579.51	0.78632	867,160 \$	729,520.01	26,131,565	\$	18,238,203.36	0.69794	105,023,552 \$	80,225,262.86	0.76388	
Sep	105,023,552 \$	80,225,262.86	0.76388	143,600 \$	102,744.03	28,405,529	\$	14,134,411.09	0.49759	133,285,481 \$	94,256,929.92	0.70718	
Oct	133,285,481 \$	94,256,929.92	0.70718	4,536,969 \$	3,453,264.43	26,631,384	\$	13,808,487.81	0.51850	155,379,896 \$	104,612,153.30	0.67327	
Nov	155,379,896 \$	104,612,153.30	0.67327	6,716,700 \$	4,480,626.85	7,646,172	\$	6,526,427.47	0.85355	156,309,368 \$	106,657,953.92	0.68235	
Dec	156,309,368 \$	106,657,953.92	0.68235	34,572,504 \$	24,087,225.38	5,896,960	\$	3,563,069.48	0.60422	127,633,824 \$	86,133,798.02	0.67485	
	TOTAL 2008 ACTIVIT	TY	_	169,763,186	102,887,584.03	162,197,791		117,901,140.31	_				
Jan 09	127,633,824 \$	86,133,798.02	0.67485	21,470,123 \$	14,421,841.03	1,969,140	\$	915,206.80	0.46477	108,132,841 \$	72,627,163.79	0.67165	
Feb	108,132,841 \$	72,627,163.79	0.67165	8,052,347 \$	5,259,751.99	3,917,370	\$	1,541,494.90	0.39350	103,997,864 \$	68,908,906.70	0.66260	

V.7.d-e Page 34

- V.7.d Historical (five years) gas supply delivered to storage, both annual total and by month.
- V.7.e Historical (five years) gas supply withdrawn from storage, both annual total and by month.

#### NORTHWEST NATURAL GAS COMPANY

All Sites Therms Summary (Gasco, Newport, Jackson Prairie, Plymouth, Mist)
ACCOUNT NO. (164.21, 164.23, 164.22, 164.16, 164.12)

	<b>BEGINNING BALANCE</b>				ISSUES (Withdrawals)		INJECTION	S (Deliveries)	ENDING BALANCE		
MONTH	THERMS	AMOUNT	RATE	THERMS	AMOUNT	THERMS	AMOUNT	RATE	THERMS	AMOUNT	RATE
Mar	103,997,864 \$	68,908,906.70	0.66260	7,169,301 \$	3,809,030.51	15,685,782	\$ 5,335,886	.23 0.34017	112,514,345 \$	70,435,762.42	0.62602
Apr	112,514,345 \$	70,435,762.42	0.62602	12,549,307 \$	6,792,634.68	6,003,002	\$ 1,863,485	.18 0.31043	105,968,040 \$	65,506,612.92	0.61817
May	105,968,040 \$	65,506,612.92	0.61817	6,257,410 \$	3,304,746.27	5,698,237	\$ 2,601,331.	.17 0.45652	105,408,867 \$	64,803,197.82	0.61478
Jun	105,408,867 \$	64,803,197.82	0.61478	1,920,050 \$	700,166.12	10,701,397	\$ 5,542,374	.50 0.51791	114,190,214 \$	69,645,406.20	0.60991
Jul	114,190,214 \$	69,645,406.20	0.60991	902,489 \$	333,164.85	14,375,074	\$ 7,356,483	.97 0.51175	127,662,799 \$	76,668,725.32	0.60056
TOTAL 2009 ACTIVITY				58,321,027	34,621,335.45	58,350,002	25,156,262	.75			

V.7.d-e Page 35

V.7.f An explanation of the methology utilized by the LDC to price storage injections and withdrawals, as well as the total and average (per unit) cost of storage gas.

The price of gas placed into storage, classed as working inventory, will be the average cost of gas defined as the average commodity cost of gas delivered to the city gate (utilizing discretionary sources first: i.e., spot gas first, then swing, and base load term supplies last) unless the site is outside the company service territory. This price would represent commodity cost, transmission cost, and fuel-in-kind (FIK) at either the NNG city gas (internal storage) or at the external storage site. This price will include all pipeline demand charges and supplier reservation charges.

This pricing policy will apply to all storage locations owned or under contract to the NNG, with exception as noted.

When the contract for a storage site includes a provision for the price of the gas placed into storage, the price shall be the price as defined by the agreement

Direct associated costs, such as liquefaction fees (LS-1), FIK (SGS) and actual material costs incurred (Newport) can be added to the base cost when determined significant.

Withdrawals at each facility (Mist, Gasco, etc.) are priced at the average inventory price as established at the beginning of each month. The beginning of the month cost at each facility is adjusted for any withdrawals and any injections (priced as per tab #29) to create the end of the month cost, which then becomes the beginning of the month cost for the next month.

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#### **NW Natural**

### UM1286 PGA Filing Guidelines 2009-2010 Oregon PGA

V.7.g Copies of all contracts or other agreements and tariffs that control the LDC's use of the storage facilities included in the current portfolio.

See Appendix 'A', Attachment 1 and Attachment 2 to V.7.g

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V.7.h For LDCs that own and operate storage:

- The date and results of the last engineering study for that storage. a.
- b. A description of any significant changes in physical or operational parameters of the storage facility (including LNG) since the current engineering study was completed.

From: Roth, Clayton

Sent: Friday, August 14, 2009 9:16 AM

To: Siebert, William; \*Gas Controllers; Tilgner, Doug

Friedman, Randy; Stinson, Charlie; Brosy, Maria; Thomas, Todd; Geertz, Allen; Lee, Amy; Cole, Cc:

Cindy; Mott, Michael; McAnally, Robert; Timmerman, Rick; Henderson, Denny; Redding, Mike; Wilkeson, Randy; Phelps, Wayne; Jaworski, William; Schmidt, R. Phil; Bekins, Todd; Pearce, Curtis;

Dady, Robin; Daniel, Rick

Subject: Mist Storage Status

This is a reminder to all recipients of this storage data that the information you are receiving is sensitive, Company confidential data. It is not to be shared with those outside the distribution list without consulting the sender and in no case should it be shared outside the Company. NW Natural storage customers and others can access weekly storage information on the NW Natural internet web site and customers can access their own account information using a personalized password. FERC has recently been focusing on storage information as a source of market volatility and is emphasizing, in part through enforcement action, that it takes very seriously any discriminatory sharing of this information. Please keep this in mind.



Please contact me if you have any questions.

Clayton

Clayton Roth, PE Reservoir Engineer **NW Natural** 

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