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October 30, 2018

NWN OPUC Advice No. 18-13

**VIA ELECTRONIC FILING**

Public Utility Commission of Oregon  
Attn: Filing Center  
201 High Street SE, Suite 100  
Post Office Box 1088  
Salem, Oregon 97308-1088

**Re: UG 344; Order 18-419: Compliance Filing with Combined Effects of Annual PGA:**

UG 348:	NWN OPUC Advice No. 18-04	Order 18-401
UG 349:	NWN OPUC Advice No. 18-05	Order 18-400
UG 350:	NWN OPUC Advice No. 18-06	Order 18-397
UG 351:	NWN OPUC Advice No. 18-07	Order 18-398
UG 352:	NWN OPUC Advice No. 18-08	Order 18-399
UG 353:	NWN OPUC Advice No. 18-09	Order 18-402
UG 354:	NWN OPUC Advice No. 18-10	Order 18-396
UG 355:	NWN OPUC Advice No. 18-11A	Order 18-386
UG 365:	NWN OPUC Advice No. 18-12	Order 18-387

Northwest Natural Gas Company, dba NW Natural (“NW Natural” or “Company”), files herewith revisions and additions to its Tariff P.U.C. Or. 25<sup>1</sup>, as listed in the attached table of tariff sheet revisions, stated to become effective with service on and after **November 1, 2018**:

This filing is made in compliance with Order No. 18-419 in Docket UG 344 issued October 26, 2018, and in accordance with OAR 860-022-0025.

The purpose of this filing is to reflect the combined effects of general revisions to rates in compliance with Commission Order No. 18-419 in Docket UG 344, and the effect of rate changes approved by the Commission as part of the Company’s annual Purchased Gas Adjustment (PGA) process effective on November 1, 2018, as listed above. The combined effect of these rate changes on customer bills is shown in the table below:

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<sup>1</sup>Tariff P.U.C. Or. 25 was filed pursuant to ORS 757.205 and OAR 860-022-0005 and originated November 1, 2012 with Docket UG 221; OPUC Order No. 12-408 as supplemented by Order No. 12-437.

Rate Schedule	Customer Class	Average Monthly Bill Change (\$)	Average Monthly Bill Change (%)
2	Residential	(\$1.10)	-2.10%
3	Commercial	(\$4.92)	-2.41%
3	Industrial	(\$21.26)	-2.37%
4	Residential Multi-Family	(\$0.69)	-6.73%
27	Residential Dry-Out Service	(\$1.44)	-3.32%
31	Commercial Firm Sales	(\$97.35)	-5.18%
31	Commercial Firm Transportation	\$80.13	6.24%
31	Industrial Firm Sales	(\$92.68)	-3.29%
31	Industrial Firm Transportation	\$93.80	6.10%
32	Commercial Firm Sales	(\$126.56)	-3.41%
32	Industrial Firm Sales	(\$396.96)	-4.96%
32	Firm Transportation	\$362.41	8.20%
32	Commercial Interruptible Sales	(\$1,124.54)	-7.83%
32	Industrial Interruptible Sales	(\$1,124.16)	-7.83%
32	Interruptible Transportation	\$650.68	7.05%
33	Firm & Interruptible Transportation	\$0.00	0.0%

In compliance with OPUC Order No. 18-419, the Company hereby attests that the following compliance actions have been taken:

**I. OPUC ORDER NO. 18-419**

**FIRST PARTIAL STIPULATION:**

The Commission adopted the First Partial Stipulation dated August 6, 2018 in its entirety. This compliance filing reflects each of the stipulated items as detailed below:

- A. Adjustments to Revenue Requirements. Exhibit A of this compliance filing reflects the \$16,000,000 revenue requirement stipulated by the parties, which is a \$21.8 million reduction from the Company's supplemental filing amount of \$37.8 million. The \$21.8 million reduction is comprised of items 2 through 18 in the table below:

		Revenue Requirement
1	Return on Equity, Stock Issuance Costs and Cost of Capital	\$(6,360,000) [1]
2	Miscellaneous Revenue	\$( 70,000)
3	Advertising Expense, Promotions and Concessions, Affiliated Interest, and Miscellaneous A&G	\$(3,401,000)
4	Director and Officer Insurance Premiums	\$( 196,000)
5	Fee Free Bankcard Program	\$( 185,000)
6	Meals, Entertainment and Travel	\$( 936,000)
7	Salary, Wages, and Incentives, and Medical Benefits	\$(6,171,000)
8	Gas Storage and Fuel Stock	\$( 16,000)
9	Plant Maintenance	\$( 41,000)
10	Distribution O&M	\$( 206,000)
11	Customer Account Expense	\$( 103,000)
12	Memberships, Dues & Donations	\$( 191,000)
13	Stock Issuance Costs	\$(1,233,000)
14	Property Taxes	\$( 152,000)
15	ODOE Fees	\$( 20,000)
16	Research & Development Tax Credits	\$( 22,000)
17	Plant Adjustments: - Projects not in service	\$(5,389,000)
	- Customer additions	\$ 1,671,000
18	Customer Deposits	\$( 27,000)

[1] This reflects the agreed upon rate of return of 7.317% which is based on a 50.0 percent equity 50.0 percent long term debt capital structure, with a return on equity of 9.400% and a debt cost of 5.233%. The 9.400% return on equity results in a reduction to revenue requirement of \$5,127,000, and the stock issuance cost results in a reduction to revenue requirement of \$1,233,000.

- B. Rate Spread and Rate Design. Exhibit B of this compliance filing reflects the application of the overall change in revenue requirement on an equal percentage of margin basis for all rate classes.
- C. Miscellaneous Issues.
1. Promotions and Concessions. In accordance with the stipulation the Company will review and amend its promotions and concessions accounting practices to address concerns raised by Staff in the UG 344 proceeding.
  2. Attestation. Under the terms of the First Partial Stipulation, NW Natural agreed to file an attestation of a Company officer by October 5, 2018, attesting to whether any projects forecast to cost over \$1,000,000 and to be completed by October 31, 2018 would not be complete by this time. Pursuant to the Partial Stipulation, if the Company identified any projects that were not completed by October 31, 2018, those projects would be removed from rate base for purposes of calculating the rates pursuant to the First Partial Stipulation, and rates adjusted accordingly.  
  
On October 5, 2018, NW Natural filed the attestation of Kimberly A. Heiting, Senior Vice President, Utility Operations and Chief Marketing Officer. Ms. Heiting's attestation identified three projects included in the rate case that will not be completed by October 31, 2018. The total costs for these projects, inclusive of construction overhead, was \$6.619 million. As such, this amount will be removed from rate base for purposes of calculating rates pursuant to the Partial Stipulation. The removal of these projects from rate base results in a decrease to the Company's revenue requirement of \$905,000. This reduction is reflected in Exhibit A.
  3. Revenue Decoupling. As agreed between the parties to the First Partial Stipulation, the Schedule 190 "Partial Decoupling Mechanism" revisions submitted with this compliance filing incorporate the separation of the Commercial customer class by Rate Schedule 3 and Rate Schedule 31. The revisions proposed in the direct testimony of Kyle T. Walker (NW Natural/900/Walker and NW Natural/903/Walker) are withdrawn. Other changes included in Schedule 190 with this compliance filing reflect revisions to the baseline use-per customer, usage coefficients, and per-therm distribution margins associated for each Rate Schedule.
  4. Capital Additions. The Company agreed to respond to additional discovery requests regarding forecast capital additions. There were no additional requests received from the parties after the August 6, 2018 stipulation date.

#### SECOND PARTIAL STIPULATION:

The Commission rejected all but two parts of the Second Partial Stipulation dated September 7, 2018. This compliance filing reflects the portions of the Second Partial Stipulation adopted by the Commission, as detailed below:

1. Pension Balancing Account (PBA) – FAS 87. The Commission adopted the portion of the Second Partial Stipulation in which the parties to that stipulation agreed to freeze the PBA. As agreed in the Second Partial Stipulation at item 9 of the Terms of Agreement,

NW Natural will freeze the pension balancing account, and will no longer book FAS 87 expense to the PBA as of October 31, 2018, net of the \$3.80 million of FAS 87 authorized expense collected in rates pursuant to the PBA Stipulation in Docket UM 1475 (approved in Order No 11-051).

2. FAS 87 Expense. The Commission adopted the portion of the Second Partial Stipulation agreeing that NW Natural will recover Test Year FAS 87 expense in rates beginning on the rate effective date, which results in an increase to FAS 87 in revenue requirement of \$8.1 million annually. As agreed in the Second Partial Stipulation at item 12, Exhibit A of this compliance filing includes the effect of the test year FAS 87 pension expense in base rates, which results in an increase of \$8.1 million to NW Natural's revenue requirement.

**INTERSTATE STORAGE SHARING:**

The Commission ordered changes to the sharing ratios set forth in Schedule 185 "Special Annual Interstate and Intrastate Storage and Transportation Credit" (Schedule 185) and Schedule 186 "Special Annual Core Pipeline Capacity Optimization Credit" (Schedule 186) as follows:

Revenue Sharing	Customer-Owned 58.63% of Mist	NWN-Owned 41.36% of Mist
ISS at Mist (Schedule 185)	n/a	20/80
Mist Gas optimization (Schedule 185)	90/10	20/80
Other Asset optimization (Schedule 186) (beyond PGA deadband)	90/10	n/a

The sharing ratios adopted by the Commission are reflected in the tariff sheets included with this compliance filing; Schedule 185 (Sheet 185-2) and Schedule 186 (Sheet 186-1).

**II. COMBINED EFFECTS OF ORDER NO. 18-419 and PURCHASED GAS ADJUSTMENTS**

1. Exhibit C of this compliance filing reflects the combined effects of the general rate changes adopted in Docket UG 344, Order No. 18-419 and the effects of the respective PGA-related dockets listed above.
2. A list of all affected tariff sheets can be found in the attached Table of Tariff sheets.

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### III. TARIFF REVISIONS

The rate schedules that reflect the effect of the change in revenue requirement adopted by Order No. 18-419, and the combined effects of the November 1, 2018 effective purchased gas cost adjustments are:

Rate Schedule 2	“Residential Sales Service”
Rate Schedule 3	“Basic Firm Sales Service – Non-Residential”
Rate Schedule 27	“Schedule 27 “Residential Heating Dry-Out Service”
Rate Schedule 31	“Schedule 31 “Non-Residential Sales and Transportation Service”
Rate Schedule 32	“Large Volume Non-Residential Sales and Transportation Service”
Rate Schedule 33	“High-Volume Non-Residential Firm and Interruptible Transportation Service”
Schedule 100	“Summary of Temporary Adjustments”
Schedule 167	“General Adjustments to Rates”
Schedule 190	“Partial Decoupling Mechanism”
Schedule 195	“Weather Adjusted Rate Mechanism (Warm Program)”

This compliance filing includes additional revisions and additions to the Company’s Tariff P.U.C. Or. 25, as follows:

1. Schedule H “Large Volume Non-Residential High Pressure Gas Service (HPGS) Rider” Sheet H-5. The Cost Recovery Factors have been updated to reflect the effect of the cost-of-service variables adopted in Order No. 18-419.
2. Schedule 4 “Residential Multi-Family Service” Sheet 4-1. The Monthly Customer Charge has been revised to reflect the effect of the updated cost-of-service variables adopted in Order No. 18-419 that are used to determine this cost-of-service based charge.
3. Schedule 15 “Charges for Special Metering Equipment, Rental Meters, and Metering Services (Optional)” Sheet 15-1. The monthly meter rental charges have been updated to reflect the effect of updated cost-of-service variables adopted in Order No. 18-419.
4. Schedule 180 “Special Rate Adjustment for Working Gas Inventory” Sheets 180-1 through 180-2. Schedule 180 is cancelled. There has been no deferral activity since 2015.
5. Schedule 184 “Special Rate Adjustment Gasco Upland Pumping Station” Sheets 184-1 through 184-3. Schedule 184 is cancelled. The last adjustments under this schedule went into effect November 1, 2014, and with the conclusion of the UG 344 proceeding, are now permanently reflected in base rates.
6. Schedule 187 “Special Rate Adjustment for Mist Capacity Recall” Sheet 187-1. This sheet is revised to zero-out the adjustment table. The last adjustments under this schedule went into effect November 1, 2015, and with the conclusion of the UG 344 proceeding these amounts are now permanently reflected in base rates.

Please refer to the table of tariff sheet revisions attached to this compliance filing for a complete list of all tariff sheets that have been revised in compliance with Order No. 18-419.

In accordance with ORS 757.205, copies of this letter and the filing made herewith are available in the Company's main office in Portland, Oregon and on its website at [www.nwnatural.com](http://www.nwnatural.com).

Please address correspondence on this matter to me with copies to the following:

eFiling  
NW Natural Rates & Regulatory Affairs  
220 NW Second Avenue  
Portland, Oregon 97209  
Telecopier: (503) 721-2516  
Telephone: (503) 226-4211, ext. 3589  
eFiling@nwnatural.com

Sincerely,

NW NATURAL

*/s/ Onita King*

Onita King  
Rates & Regulatory

Attachments

NW Natural  
**TABLE OF TARIFF SHEET REVISIONS**  
**PROPOSED TO BECOME EFFECTIVE NOVEMBER 1, 2018**  
**OPUC Advice 18-13; UG 344 Compliance Filing**

<b>PROPOSED REVISION</b>	<b>CANCELS REVISION</b>	<b>SCHEDULE TITLE</b>
Sixth Revision of Sheet v	Fifth Revision of Sheet v	Tariff Index (continued)
Third Revision of Sheet H-5	Second Revision of Sheet H-5	Schedule H "Large Volume Non-Residential High Pressure Gas Service (HPGS) Rider (continued)"
Eighth Revision of Sheet 2-1	Seventh Revision of Sheet 2-1	Schedule 2 "Residential Sales Service"
Eighth Revision of Sheet 3-4	Seventh Revision of Sheet 3-4	Schedule 3 "Basic Firm Sales Service – Non-Residential (continued)"
First Revision of Sheet 4-1	Original Sheet 4-1	Schedule 4 "Residential Multi-Family Service"
Second Revision of Sheet 15-1	First Revision of Sheet 15-1	Schedule 15 "Charges for Special Metering Equipment, Rental Meters and Metering Services (Optional)"
Second Revision of Sheet 15-2	First Revision of Sheet 15-2	Schedule 15 "Charges for Special Metering Equipment, Rental Meters and Metering Services (Optional) (Continued)"
Second Revision of Sheet 15-3	First Revision of Sheet 15-3	Schedule 15 "Charges for Special Metering Equipment, Rental Meters and Metering Services (Optional) (Continued)"
First Revision of Sheet 15-4	Original Sheet 15-4	Schedule 15 "Charges for Special Metering Equipment, Rental Meters and Metering Services (Optional) (Continued)"
Sixth Revision of Sheet 27-1	Fifth Revision of Sheet 27-1	Schedule 27 "Residential Heating Dry-Out Service"
Eighth Revision of Sheet 31-11	Seventh Revision of Sheet 31-11	Schedule 31 "Non-Residential Sales and Transportation Service (continued)"
Sixth Revision of Sheet 31-12	Fifth Revision of Sheet 31-12	Schedule 31 "Non-Residential Sales and Transportation Service (continued)"
Sixth Revision of Sheet 32-12	Fifth Revision of Sheet 32-12	Schedule 32 "Large Volume Non-Residential Sales and Transportation Service (continued)"
Seventh Revision of Sheet 32-13	Sixth Revision of Sheet 32-13	Schedule 32 "Large Volume Non-Residential Sales and Transportation Service (continued)"

<b>PROPOSED REVISION</b>	<b>CANCELS REVISION</b>	<b>SCHEDULE TITLE</b>
Sixth Revision of Sheet 32-14	Fifth Revision of Sheet 32-14	Schedule 32 "Large Volume Non-Residential Sales and Transportation Service (continued)"
Sixth Revision of Sheet 33-8	Fifth Revision of Sheet 33-8	Schedule 33 "High-Volume Non-Residential Firm and Interruptible Transportation Service (continued)"
Fourth Revision of Sheet 100-1	Third Revision of Sheet 100-1	Schedule 100 "Summary of Temporary Adjustments"
Third Revision of Sheet 100-2	Second Revision of Sheet 100-2	Schedule 100 "Summary of Temporary Adjustments (continued)"
Fourth Revision of Sheet 100-3	Third Revision of Sheet 100-3	Schedule 100 "Summary of Temporary Adjustments (continued)"
First Revision of Sheet 167-1	Original Sheet 167-1	Schedule 167 "General Adjustments to Rates"
Third Revision of Sheet 180-1	Second Revision of Sheet 180-1	Schedule 180 "Special Rate Adjustment For Working Gas Inventory"
First Revision of Sheet 180-2	Original Sheet 180-2	Schedule 180 "Special rate adjustment for working gas inventory (continued)"
Fourth Revision of Sheet 184-1	Third Revision of Sheet 184-1	Schedule 184 "Special Rate Adjustment Gasco Upland Pumping Station"
Third Revision of Sheet 184-2	Second Revision of Sheet 184-2	Schedule 184 "Special Rate Adjustment Gasco Upland Pumping Station (continued)"
First Revision of Sheet 184-3	Original Sheet 184-3	Schedule 184 "Special Rate Adjustment Gasco Upland Pumping Station (continued)"
Second Revision of Sheet 185-2	First Revision of Sheet 185-2	Schedule 185 "Special Annual Interstate and Intrastate Storage and Transportation Credit (continued)"
Seventh Revision of Sheet 186-1	Sixth Revision of Sheet 186-1	Schedule 186 "Special Annual Core Pipeline Capacity Optimization Credit"
Second Revision of Sheet 187-1	First Revision of Sheet 187-1	Schedule 187 "Special Rate Adjustment For Mist Capacity Recall"
Eighth Revision of Sheet 190-1	Seventh Revision of Sheet 190-1	Schedule 190 "Partial Decoupling Mechanism"
Sixth Revision of Sheet 190-2	Fifth Revision of Sheet 190-2	Schedule 190 "Partial Decoupling Mechanism (continued)"
Fourth Revision of Sheet 195-1	Third Revision of Sheet 195-1	Schedule 195 "Weather Adjusted Rate Mechanism (Warm Program)"



<b>PROPOSED REVISION</b>	<b>CANCELS REVISION</b>	<b>SCHEDULE TITLE</b>
Second Revision of Sheet 195-3	First Revision of Sheet 195-3	Schedule 195 "Weather Adjusted Rate Mechanism (Warm Program) (continued)"
Fourth Revision of Sheet 195-4	Third Revision of Sheet 195-4	Schedule 195 "Weather Adjusted Rate Mechanism (Warm Program) (continued)"
Sixth Revision of Sheet 195-5	Fifth Revision of Sheet 195-5	Schedule 195 "Weather Adjusted Rate Mechanism (Warm Program) (continued)"

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Sixth Revision of Sheet v  
Cancels Fifth Revision of Sheet v

## TARIFF INDEX

(continued)

<b>ADJUSTMENT SCHEDULES</b>	<b>SHEET</b>	
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Schedule 160: Revision of Charges for Coos County Customers .....	160-1	
Schedule 162: Temporary (Technical) Adjustments to Rates.....	162-1 to 162-2	
Schedule 164: Purchased Gas Cost Adjustments to Rates.....	164-1	
Schedule 164A: Special Purchased Gas Adjustment Credit.....	164-A	
Schedule 165: Special Adjustment to Rates – Gas Reserves Credit .....	165-1	
Schedule 167: General Adjustments to Rates .....	167-1	
Schedule 172: Special Adjustment to Rates for Intervenor Funding .....	172-1	
Schedule 173: Credits to Customers Related to Holding Company Formation .....	173-1 to 173-2	(N)
Schedule 177: System Integrity Program Rate Adjustment - CANCELLED .....	177-1 to 177-4	
Schedule 178: Regulatory Rate Adjustment .....	178-1 to 178-2	
Schedule 179: Automated Meter Reading (AMR) Rate Adjustment .....	179-1	
Schedule 180: CANCELLED - Special Rate Adjustment for Working Gas Inventory .....	180-1 to 180-2	(C)
Schedule 181: Special Rate Adjustment – Regulatory Fee Increase .....	181-1 to 181-2	
Schedule 182: Rate Adjustment for Environmental Cost Recovery .....	182-1	
Schedule 183: Site Remediation Recovery Mechanism (SRRM) .....	183-1 to 183-3	
Schedule 184: CANCELLED - Special Rate Adjustment Gasco Upland Pumping Stations..	184-1 to 184-3	(C)
Schedule 185: Special Annual Interstate and Intrastate Storage and Transportation Credit .....	185-1 to 185-2	
Schedule 186: Special Annual Core Pipeline Capacity Optimization Credit.....	186-1	
Schedule 187: Special Rate Adjustment for Mist Capacity Recall.....	187-1	
Schedule 188: Industrial Demand Side Management (DSM) Program Cost Recovery.....	188-1	
Schedule 190: Partial Decoupling Mechanism .....	190-1 to 190-2	
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Schedule 301: Public Purposes Funding Surcharge .....	301-1 to 301-3	
Schedule 310: Oregon Low-Income Gas Assistance (OLGA) .....	310-1 to 310-2	
Schedule 320: Oregon Low-Income Energy Efficiency (OLIEE) Programs .....	320-1 to 320-6	
Schedule 350: Energy Efficiency Services and Programs – Residential and Commercial.....	350-1	
Schedule 360: Industrial Demand Side Management (DSM) Programs.....	360-1 to 360-2	
<b>OTHER PROGRAMS</b>		
Schedule 400: Smart Energy Program .....	400-1 to 400-2	
Schedule 405: Builder/Developer Program (Optional) Multi-Story Multi-Family .....	405-1 to 405-2	

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Third Revision of Sheet H-5  
Cancels Second Revision of Sheet H-5

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## RATE SCHEDULE H LARGE VOLUME NON-RESIDENTIAL HIGH PRESSURE GAS SERVICE (HPGS) RIDER (continued)

### Monthly Billing Rate (continued)

Cost Recovery Factors Primary 10-Year Term Effective November 1, 2018		
Year	No Bonus Depreciation	With Bonus Depreciation
Year 1	21.1%	20.6%
Year 2	19.8%	18.8%
Year 3	18.4%	17.7%
Year 4	17.1%	16.6%
Year 5	15.9%	15.6%
Year 6	14.8%	14.6%
Year 7	13.7%	13.6%
Year 8	12.7%	12.6%
Year 9	11.7%	11.7%
Year 10	10.8%	10.8%

(C)

(C)

Scheduled Maintenance Charge includes the costs associated with providing Scheduled Maintenance on HPGS Facilities as well as an annual charge of \$10,087 per Customer for administrative services, which includes but is not limited to costs for managing the program, marketing, applying administrative and general overhead allocations, performing Customer credit evaluations, drafting the Customer agreements and site licenses, billing, warehousing and managing inventory of spare parts, monitoring, and dispatching. Scheduled Maintenance costs are initially based on expected labor and material costs known at the time the HPGS Agreement is executed. The labor component recovered through this charge includes the costs for administration. The Scheduled Maintenance Charge may be adjusted annually on the anniversary date of the execution of the HPGS Agreement to reflect any adjustments for differences between expected costs and actual costs, and to reflect any cost changes expected for the next 12-month period.

In addition to the Monthly Facility Charge and the Scheduled Maintenance Charge, the Company will bill and the Customer will be responsible to pay all actual costs associated with the Company's provision of Unscheduled Maintenance and Back-Up Services.

Unscheduled Maintenance will be billed as costs are incurred at actual costs for labor and materials plus overhead expenses.

(continue to Sheet H-6)

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

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

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

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

## RATE SCHEDULE 2 RESIDENTIAL SALES SERVICE

### AVAILABLE:

To Residential Class Customers in all territory served by the Company under the Tariff of which this Rate Schedule is a part. Temporary Disconnection 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 equipment used for Domestic purposes by qualifying Residential Class Customers.

Service to a Vehicle Fueling Appliance is subject to the conditions set forth in Special Provisions 3 through 6 of this Rate Schedule.

**MONTHLY RATE:** Effective: November 1, 2018

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **Schedule 100** for a list of applicable temporary 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 service to a Vehicle Fueling Appliance shall be further adjusted as set forth in Special Provision 6 of this Rate Schedule.

	Base Rate	Base Adjustment [1]	Pipeline Capacity	Commodity	Temporary Adjustment	Total Billing
Customer Charge:	\$8.00	---	---	---	---	<b>\$8.00</b>
Volumetric Charge (per therm):	\$0.48538	\$0.00000	\$0.10917	\$0.24649	(\$0.02324)	<b>\$0.81780</b>

(R)

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

(continue to Sheet 2-2)

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# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Eighth Revision of Sheet 3-4  
Cancels Seventh Revision of Sheet 3-4

## RATE SCHEDULE 3 BASIC FIRM SALES SERVICE - NON-RESIDENTIAL (continued)

**MONTHLY RATE:** Effective: November 1, 2018

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **Schedule 100** for a list of applicable temporary 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 service to CNG vehicle fueling equipment shall be further adjusted as set forth in Special Provision 7 of this Rate Schedule.

FIRM SALES SERVICE CHARGES: (03CSF and 03ISF)						Billing Rates [1]
Customer Charge (per month):						\$15.00
Volumetric Charges (per therm):	Base Rate	Base Adjustment	Pipeline Capacity	Commodity Component [2]	Temporary Adjustment	
<b>Commercial</b>	\$0.38314	\$0.00000	\$0.10917	\$0.24649	\$0.03726	<b>\$0.77606</b>
<b>Industrial</b>	\$0.36771	\$0.00000	\$0.10917	\$0.24649	\$0.02838	<b>\$0.75175</b>
<b>Standby Charge (per therm of MHDV) [3]:</b>						<b>\$10.00</b>

(R)  
(R)

[1] **Schedule C** and **Schedule 15** Charges shall apply, if applicable.

[2] The Commodity Component shown is the Annual Sales WACOG. The actual Commodity Component billed could be different for certain customers as described in the special provisions of this Rate Schedule

[3] Applies to Standby Sales Service only.

**Minimum Monthly Bill.** The Minimum Monthly Bill shall be the Customer Charge plus any **Schedule C** and **Schedule 15** Charges.

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# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

First Revision of Sheet 4-1  
Cancels Original Sheet 4-1

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## RATE SCHEDULE 4 RESIDENTIAL MULTI-FAMILY SERVICE

### **APPLICABLE:**

To Residential tenants that reside in a Participant Multi-Family Building.

**MONTHLY RATE:**      \$9.56

Effective: November 1, 2018

(R)(C)

The monthly rate for service under this Rate Schedule 4 may be adjusted from time to time for the effects of changes approved by the Commission in a general rate case proceeding.

### **SPECIAL PROVISIONS:**

1. Low-use gas appliances include gas range or cooktop, gas clothes dryer, and gas barbecue. All Natural Gas usage associated with low-use gas appliances served under this Schedule 4 will be metered and billed from the master meter that serves the Participant Building and will be collected from tenants in accordance with General Rule 17 of this Tariff and with Participant Building policy.
2. Customers billed under this Rate Schedule 4 are not subject to Schedule 301 Public Purposes Funding Surcharges.
3. Customers billed under this Rate Schedule 4 are not eligible for the following programs:

Schedule 310—Oregon Low-Income Gas Assistance (OLGA)

Schedule 320—Oregon Low-Income Energy Efficiency Programs (OLIEE)

Schedule 350—Energy Efficiency Services and Programs - Residential and Commercial

### **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 October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

Second Revision of Sheet 15-1  
First Revision of Original Sheet 15-1

**RATE SCHEDULE 15**  
**CHARGES FOR SPECIAL METERING EQUIPMENT, RENTAL METERS AND**  
**METERING SERVICES (OPTIONAL)**

(T)

**AVAILABLE:**

In all territory served by the Company under the Tariff of which this Rate Schedule is a part.

**TERM OF SERVICE:**

The Term of Service for monthly meter rentals and metering services provided under this Schedule is twelve (12) consecutive billing months. At the end of a full Term of Service, service under this Rate Schedule will continue on a billing month basis until terminated by either the Customer or the Company upon one (1) billing month advance notice.

**MONTHLY METER RENTAL RATES:**

Any Customer may rent supplementary displacement type meters from the Company at the following rates:

Diaphragm Meters: Effective: November 1, 2018

(N)

The currently available meter sizes and associated monthly charges are shown below:

(N)

<u>Meter Size</u> (Cubic Feet/hour)	<u>Monthly Charge</u>
250	\$2.23
630	\$6.35
1000	\$10.90

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Rotary Meters: Effective: November 1, 2018

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<u>Meter Size</u>	<u>Meter Capacity</u> (Cubic Feet/hour)	<u>Monthly Charge</u>
1.5M175/15C175	1500	\$29.28
3M175	3000	\$31.60
5M175	5000	\$35.56
7M175	7000	\$36.53
11M175	11000	\$56.59
16M175	16000	\$73.34
23M175	23000	\$99.20
38M175	38000	\$269.89

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(continue to Sheet 15-2)

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Issued October 30, 2018  
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**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

Second Revision of Sheet 15-2  
 Cancels First Revision of Sheet 15-2

**RATE SCHEDULE 15**  
**CHARGES FOR SPECIAL METERING EQUIPMENT, RENTAL METERS, AND**  
**METERING SERVICES (OPTIONAL)**

(continued)

**MONTHLY METER RENTAL RATES (Continued):**

The following **diaphragm** meter sizes and associated monthly charges have been grandfathered for billing purposes. These meters/charges are not available to new meter rental requests.

Applicable			
Meters Installed Prior to 9/24/2008	Meters Installed Prior to 4/26/2018	Meter Size (cf/hour)	Monthly Charge
XX		175	\$0.81
	XX	200	\$0.81
	XX	275	\$1.00
XX		310	\$1.00
	XX	415	\$1.70
XX		425	\$1.70
	XX	500	\$1.70
XX		800	\$4.07
		1400	\$9.29
	XX	1450	\$9.29
XX		2300	\$14.68
	XX	2500	\$14.68
	XX	3000	\$23.33
XX		5000	\$23.33
	XX	11000	\$23.33
	XX	18000	\$23.33

The following **rotary** meter sizes and associated monthly charges have been grandfathered for billing purposes. These meters/charges are not available to new meter rental requests.

Applicable			
Meters Installed Prior to 4/26/2018	Meter Size	Meter Capacity (cf/hour)	Monthly Charge
XX	8C175	800	\$ 13.00

**METERING SERVICES AND CHARGES:**

Metering Service	One Time Charge	Installation Charge	Monthly Charge
Rental Read	---	---	\$0.76
Advanced Automated Meter Reading (AAMR) Device <sup>1</sup>	---	\$1,270.53	\$54.40
Remote Index	---	\$50.00	\$4.00
Pulse Output	---	\$100.00	\$8.00
Administrative Set-Up/Consultation Fee (all meters)	\$100.00	---	---
Technical Assistance (Rotary meters only)	\$100.00	---	---

<sup>1</sup>Site specific engineering design costs for AAMR will be added to the installation charge if needed.

(continue to Sheet 15-3)

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**RATE SCHEDULE 15**  
**CHARGES FOR SPECIAL METERING EQUIPMENT, RENTAL METERS, AND**  
**METERING SERVICES (OPTIONAL)**  
(continued)

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**SPECIAL PROVISIONS FOR RENTAL METERS AND SPECIAL METERING EQUIPMENT:**

1. Prior to receiving service under this section of the Schedule, the Customer must sign a rental agreement that requires a 12-month term. Customers who terminate service after less than 12 months will be required to pay all charges otherwise due to fulfill the 12-month obligation under the service agreement. This requirement protects non-participating Customers from absorbing costs associated with this service.
2. Service under this section of this Schedule is voluntary and separate from billing for or delivery of natural gas to a Customer's premise.
3. Since the Company does not maintain an inventory of all meter types offered under this Schedule, a delay may occur from the time a Customer requests service under this Schedule until the Company can provide it.
4. The Customer will be responsible for the meter pick-up and return of diaphragm meters.
5. The Customer will incur the Administrative Set-Up/Consultation Fee for each rental meter.
6. Upon delivery of a rotary meter, the Customer will incur the Technical Assistance charge listed above for each rental rotary meter. A Customer may not waive this provision or the associated fee. Technical assistance helps the Company ensure proper handling of rotary meters.
7. The Company will install AAMR Devices for the charge listed above. AAMR devices will only be installed on Company owned meters and the Company will require that the Customer provide active and continuous electric power per company specifications to enable meter communications.
8. Upon request, the Company will provide one differential test per calendar year on rotary meters. The testing will be scheduled at the Company's convenience.
9. The Customer is responsible to protect all rental equipment from damage including but not limited to installing parking bollards to protect the rental equipment from vehicular or other damage.
10. Unless manufacturer error can be established, a Customer will be charged for damaged rental equipment. The charge will be the replacement cost less depreciation determined from the initiation date of the rental agreement to the present.
11. A new rental agreement is required each time rental equipment is replaced.
12. An Administrative Set-Up/Consultation Fee will be incurred each time a new rental agreement is initiated, except when the rental meter is being replaced because of manufacturer error.
13. Meter reads are available for the charge established above only when the Customer's service meter is remotely read with the Company's drive-by technology and that technology can easily receive transmitted reads from the rental meter. The Company may determine that meter reads are not available where these conditions are not met. Also, only the Company may choose the billing cycle on which the meter is read.

(continue to Sheet 15-4)

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

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**RATE SCHEDULE 15**  
**CHARGES FOR SPECIAL METERING EQUIPMENT, RENTAL METERS,**  
**AND METERING SERVICES (OPTIONAL)**

(continued)

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**SPECIAL PROVISIONS FOR RENTAL METERS AND SPECIAL METERING EQUIPMENT**  
**(continued):**

14. The Company may periodically offer rental equipment that is not listed in this rate schedule. Temporary rental equipment will be offered at a billing rate based on approved prices for near equivalent equipment. The use of temporary rental equipment will be for a limited duration not to exceed one year at which time the rental equipment will either be removed or the Company will file with the Commission to add the equipment to this rate schedule.
15. The rates shown in this Rate Schedule may not always reflect actual billing rates. See **Schedule 100** for a list of applicable adjustments.

**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 October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Sixth Revision of Sheet 27-1  
Cancels Fifth Revision of Sheet 27-1

## RATE SCHEDULE 27 RESIDENTIAL HEATING DRY-OUT SERVICE

### AVAILABLE:

To Residential home builders, developers, and contractors during the period that a Residential dwelling is under construction, in all territory served by the Company under the Tariff of which this Rate Schedule is a part.

### SERVICE DESCRIPTION:

Service under this Rate Schedule is restricted to the use of gas in approved permanently-installed gas heating equipment in place during the period the dwelling is under construction. Upon occupancy of the dwelling, service under this Rate Schedule shall terminate automatically. In no event will service under this Rate Schedule continue for a period of time greater than twelve (12) months from the date the gas meter is set at the dwelling. Upon termination of service under this Rate Schedule, gas service shall transfer to **Schedule 2**.

**MONTHLY RATE:** Effective: November 1, 2018

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **Schedule 100** for a list of applicable temporary adjustments. Rates are subject to charges 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 Adjustment	Pipeline Capacity Rate	Commodity Rate	Temporary Adjustment	Billing Rate
Customer Charge:	\$6.00	---	---	---	---	<b>\$6.00</b>
Volumetric Charge (per therm)						
All therms	\$0.36972	\$0.00000	\$0.10917	\$0.24649	(\$0.01973)	<b>\$0.70565</b>

(R)

Minimum Monthly Bill: Customer Charge, plus charges under **Schedule C** and **Schedule 15** (if applicable)

### 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 October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Eighth Revision of Sheet 31-11  
Cancels Seventh Revision of Sheet 31-11

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

**MONTHLY RATES FOR COMMERCIAL CUSTOMER CLASS:**

**Effective: November 1, 2018**

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. **See Schedule 100** for a list of applicable temporary 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 service to CNG vehicle fueling equipment shall be further adjusted as set forth in Provision No. 2 of the "SPECIAL CONDITIONS FOR COMPRESSED NATURAL GAS ("CNG") SERVICE FOR VEHICULAR USE" of this Rate Schedule.

<b>FIRM SALES SERVICE CHARGES (31 CSF) [1]:</b>					Billing Rates
Customer Charge (per month):					<b>\$325.00</b>
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Commodity Component [2]	Total Temporary Adjustments [3]	
Block 1: 1st 2,000 therms	\$0.23689	\$0.00000	\$0.24649	\$0.03206	<b>\$0.51544</b>
Block 2: All additional therms	\$0.21651	\$0.00000	\$0.24649	\$0.03161	<b>\$0.49461</b>
<b>Pipeline Capacity Charge Options (select one):</b>					
Firm Pipeline Capacity Charge - Volumetric option (per therm):					<b>\$0.10917</b>
Firm Pipeline Capacity Charge - Peak Demand option (per therm of MDDV):					<b>\$1.62</b>
<b>FIRM TRANSPORTATION SERVICE CHARGES (31 CTF):</b>					
Customer Charge (per month):					<b>\$325.00</b>
Transportation Charge (per month):					<b>\$250.00</b>
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment		Total Temporary Adjustments [4]	
Block 1: 1st 2,000 therms	\$0.20375	\$0.00000		\$0.00540	<b>\$0.20915</b>
Block 2: All additional therms	\$0.18630	\$0.00000		\$0.00496	<b>\$0.19126</b>

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- [1] 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.
- [2] 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.
- [3] 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.
- [4] 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.

(continue to Sheet 31-12)

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Sixth Revision of Sheet 31-12  
Cancels Fifth Revision of Sheet 31-12

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

**MONTHLY RATES FOR INDUSTRIAL CUSTOMER CLASS:**

**Effective: November 1, 2018**

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable temporary 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**.

<b>FIRM SALES SERVICE CHARGES (31 ISF) [1]:</b>					<b>Billing Rates</b>
Customer Charge (per month):					<b>\$325.00</b>
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment	Commodity Component [2]	Total Temporary Adjustments [3]	
Block 1: 1st 2,000 therms	\$0.18529	\$0.00000	\$0.24649	\$0.02638	<b>\$0.45816</b> (R)
Block 2: All additional therms	\$0.16744	\$0.00000	\$0.24649	\$0.02602	<b>\$0.43995</b> (R)
<b>Pipeline Capacity Charge Options (select one):</b>					
Firm Pipeline Capacity Charge - Volumetric option (per therm):					<b>\$0.10917</b> (R)
Firm Pipeline Capacity Charge - Peak Demand option (per therm of MDDV):					<b>\$1.62</b> (R)
<b>FIRM TRANSPORTATION SERVICE CHARGES (31 ITF):</b>					
Customer Charge (per month):					<b>\$325.00</b>
Transportation Charge (per month):					<b>\$250.00</b>
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment		Total Temporary Adjustments [4]	
Block 1: 1st 2,000 therms	\$0.18195	\$0.00000		\$0.00422	<b>\$0.18617</b> (I)
Block 2: All additional therms	\$0.16445	\$0.00000		\$0.00384	<b>\$0.16829</b> (I)

[1] 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**.

[2] 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.

[3] 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.

[4] 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.

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Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Sixth Revision of Sheet 32-12  
Cancels Fifth Revision of Sheet 32-12

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

**MONTHLY RATES:**

**Effective: November 1, 2018**

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable temporary 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**.

<b>FIRM SALES SERVICE CHARGES [1]:</b>					<b>Billing Rates</b>
Customer Charge (per month, all service types):					<b>\$675.00</b>
	Base Rate	Base Rate Adjustment	Commodity Component [2]	Total Temporary Adjustments [3]	
<b>32 CSF Volumetric Charges (per therm):</b>					
Block 1: 1st 10,000 therms	\$0.11489	\$0.00000	\$0.24649	\$0.02590	<b>\$0.38728</b> (R)
Block 2: Next 20,000 therms	\$0.09764	\$0.00000	\$0.24649	\$0.02538	<b>\$0.36951</b>
Block 3: Next 20,000 therms	\$0.06896	\$0.00000	\$0.24649	\$0.02452	<b>\$0.33997</b>
Block 4: Next 100,000 therms	\$0.04022	\$0.00000	\$0.24649	\$0.02366	<b>\$0.31037</b>
Block 5: Next 600,000 therms	\$0.01978	\$0.00000	\$0.24649	\$0.02289	<b>\$0.28916</b>
Block 6: All additional therms	\$0.00988	\$0.00000	\$0.24649	\$0.02256	<b>\$0.27893</b> (R)
<b>32 ISF Volumetric Charges (per therm):</b>					
Block 1: 1st 10,000 therms	\$0.10932	\$0.00000	\$0.24649	\$0.02505	<b>\$0.38086</b> (R)
Block 2: Next 20,000 therms	\$0.09293	\$0.00000	\$0.24649	\$0.02468	<b>\$0.36410</b>
Block 3: Next 20,000 therms	\$0.06558	\$0.00000	\$0.24649	\$0.02408	<b>\$0.33615</b>
Block 4: Next 100,000 therms	\$0.03828	\$0.00000	\$0.24649	\$0.02348	<b>\$0.30825</b>
Block 5: Next 600,000 therms	\$0.01950	\$0.00000	\$0.24649	\$0.02312	<b>\$0.28911</b>
Block 6: All additional therms	\$0.00980	\$0.00000	\$0.24649	\$0.02268	<b>\$0.27897</b> (R)
Firm Service Distribution Capacity Charge (per therm of MDDV per month):					<b>\$0.15748</b>
Firm Sales Service Storage Charge (per therm of MDDV per month):					<b>\$0.20415</b>
<b>Pipeline Capacity Charge Options (select one):</b>					
Firm Pipeline Capacity Charge - Volumetric option (per therm):					<b>\$0.10917</b> (R)
Firm Pipeline Capacity Charge - Peak Demand option (per therm of MDDV per month):					<b>\$1.62</b> (R)

- [1] 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.
- [2] 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.
- [3] 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.

(continue to Sheet 32-13)

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
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# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Seventh Revision of Sheet 32-13  
Cancels Sixth Revision of Sheet 32-13

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

**MONTHLY RATES (continued):**

**Effective: November 1, 2018**

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable temporary 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**

<b>INTERRUPTIBLE SALES SERVICE CHARGES [1][4]:</b>					<b>Billing Rates</b>
Customer Charge (per month):					<b>\$675.00</b>
	Base Rate	Base Rate Adjustment	Commodity Component [2]	Total Temporary Adjustments [3]	
<b>32 CSI Volumetric Charges (per therm):</b>					
Block 1: 1st 10,000 therms	\$0.11023	\$0.00000	\$0.24649	\$0.02965	<b>\$0.38637</b>
Block 2: Next 20,000 therms	\$0.09370	\$0.00000	\$0.24649	\$0.02935	<b>\$0.36954</b>
Block 3: Next 20,000 therms	\$0.06614	\$0.00000	\$0.24649	\$0.02884	<b>\$0.34147</b>
Block 4: Next 100,000 therms	\$0.03859	\$0.00000	\$0.24649	\$0.02833	<b>\$0.31341</b>
Block 5: Next 600,000 therms	\$0.02204	\$0.00000	\$0.24649	\$0.02803	<b>\$0.29656</b>
Block 6: All additional therms	\$0.01009	\$0.00000	\$0.24649	\$0.02765	<b>\$0.28423</b>
Interruptible Pipeline Capacity Charge (per therm):					<b>\$0.01300</b>
<b>32 ISI Volumetric Charges (per therm):</b>					
Block 1: 1st 10,000 therms	\$0.10986	\$0.00000	\$0.24649	\$0.02985	<b>\$0.38620</b>
Block 2: Next 20,000 therms	\$0.09340	\$0.00000	\$0.24649	\$0.02955	<b>\$0.36944</b>
Block 3: Next 20,000 therms	\$0.06593	\$0.00000	\$0.24649	\$0.02903	<b>\$0.34145</b>
Block 4: Next 100,000 therms	\$0.03846	\$0.00000	\$0.24649	\$0.02853	<b>\$0.31348</b>
Block 5: Next 600,000 therms	\$0.02197	\$0.00000	\$0.24649	\$0.02822	<b>\$0.29668</b>
Block 6: All additional therms	\$0.01005	\$0.00000	\$0.24649	\$0.02787	<b>\$0.28441</b>
Interruptible Pipeline Capacity Charge (per therm):					<b>\$0.01300</b>

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- [1] 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.
- [2] 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.
- [3] 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.
- [4] 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.

(continue to Sheet 32-14)

Issued October 30, 2018  
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**NORTHWEST NATURAL GAS COMPANY**

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Sixth Revision of Sheet 32-14  
 Cancels Fifth Revision of Sheet 32-14

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

**MONTHLY RATES (continued):**

**Effective: November 1, 2018**

(C)

The rates shown in this Rate Schedule may not always reflect actual billing rates. See **SCHEDULE 100** for a list of applicable temporary 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.

<b>FIRM TRANSPORTATION SERVICE CHARGES (32 CTF or 32 ITF) [1]:</b>					<b>Billing Rates</b>
Customer Charge (per month):					<b>\$675.00</b>
Transportation Charge (per month):					<b>\$250.00</b>
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment		Total Temporary Adjustments [2]	
Block 1: 1st 10,000 therms	\$0.10758	\$0.00000		\$0.00241	<b>\$0.10999</b>
Block 2: Next 20,000 therms	\$0.09142	\$0.00000		\$0.00208	<b>\$0.09350</b>
Block 3: Next 20,000 therms	\$0.06456	\$0.00000		\$0.00156	<b>\$0.06612</b>
Block 4: Next 100,000 therms	\$0.03766	\$0.00000		\$0.00102	<b>\$0.03868</b>
Block 5: Next 600,000 therms	\$0.02151	\$0.00000		\$0.00069	<b>\$0.02220</b>
Block 6: All additional therms	\$0.01079	\$0.00000		\$0.00048	<b>\$0.01127</b>
Firm Service Distribution Capacity Charge (per therm of MDDV per month):					<b>\$0.15748</b>
<b>INTERRUPTIBLE TRANSPORTATION SERVICE CHARGES (32 CTI or ITI) [3][4]:</b>					
Customer Charge (per month):					<b>\$675.00</b>
Transportation Charge (per month):					<b>\$250.00</b>
Volumetric Charges (per therm)	Base Rate	Base Rate Adjustment		Total Temporary Adjustments [2]	
Block 1: 1st 10,000 therms	\$0.10595	\$0.00000		\$0.00203	<b>\$0.10798</b>
Block 2: Next 20,000 therms	\$0.09007	\$0.00000		\$0.00175	<b>\$0.09182</b>
Block 3: Next 20,000 therms	\$0.06359	\$0.00000		\$0.00131	<b>\$0.06490</b>
Block 4: Next 100,000 therms	\$0.03709	\$0.00000		\$0.00086	<b>\$0.03795</b>
Block 5: Next 600,000 therms	\$0.02121	\$0.00000		\$0.00059	<b>\$0.02180</b>
Block 6: All additional therms	\$0.01062	\$0.00000		\$0.00041	<b>\$0.01103</b>

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- [1] 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.
- [2] Where applicable, the Account 191 Adjustments shall apply.
- [3] 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.
- [4] 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.

Issued October 30, 2018  
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 and after November 1, 2018



**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

Sixth Revision of Sheet 33-8  
 Cancels Fifth Revision of Sheet 33-8

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

**MONTHLY RATE:**

Effective: November 1, 2018

(C)

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

<b>FIRM TRANSPORTATION SERVICE CHARGES (33 TF)</b>					
					<b>Billing Rates</b>
Customer Charge:					<b>\$38,000.00</b>
Transportation Charge:					<b>\$250.00</b>
Volumetric Charge:		Base Rate	Base Rate Adjustments	Total Temporary Adjustment [1]	
Per therm, all therms:		\$0.00566	\$0.00000	\$0.00012	<b>\$0.00578</b>
Firm Service Distribution Capacity Charge: Per therm of MDDV per month					<b>\$0.15748</b>
<b>Minimum Monthly Bill:</b> Customer Charge, plus Transportation Charge, plus Firm Service Distribution Capacity Charge, plus any other charges that may apply from <b>Schedule C</b> and <b>Schedule 15</b> .					

(I)

<b>INTERRUPTIBLE TRANSPORTATION SERVICE CHARGES (33 TI)</b>					
					<b>Billing Rates</b>
Customer Charge:					<b>\$38,000.00</b>
Transportation Charge:					<b>\$250.00</b>
Volumetric Charge:		Base Rate	Base Rate Adjustments	Total Temporary Adjustment [1]	
Per therm, all therms:		\$0.00566	\$0.00000	\$0.00012	<b>\$0.00578</b>
<b>Minimum Monthly Bill:</b> Customer Charge, plus Transportation Charge, plus any other charges that may apply from <b>Schedule C</b> and <b>Schedule 15</b> .					

(I)

[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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# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Fourth Revision of Sheet 100-1  
Cancels Third Revision Sheet 100-1

## SCHEDULE 100 SUMMARY OF TEMPORARY ADJUSTMENTS

### PURPOSE:

To list the temporary adjustments included in billing rates.

### DESCRIPTION:

The temporary adjustments to rates reflected in this Schedule are the result of the Commission's approval of an application by NW Natural to defer certain revenues or expenses for later amortization in customer rates under the authority of ORS 757.259, OAR 860-022-0070, and OAR 860-027-0300. The details specific to each adjustment can be found in the respective Adjustment Schedules.

All adjustment amounts identified in this Schedule shall be in effect for a 12-month period commencing with the stated effective date, or for such other period approved by the Commission.

### APPLICABLE:

To the following Rate Schedules of this Tariff:

Rate Schedule 2  
Rate Schedule 3

Rate Schedule 27  
Rate Schedule 31

Rate Schedule 32  
Rate Schedule 33

### TABLE OF TEMPORARY ADJUSTMENTS: **Effective: November 1, 2018**

All temporary adjustments are stated on a cent per therm basis.

#### Schedule 2: Residential Sales Service

	Applicable	Firm Sales
		Residential
Deferred Gas Cost Amortization (Schedule 162)	All Therms	(\$0.02747)
Intervenor Funding (Schedule 172)	All Therms	\$0.00036
Misc. Deferred Adjustments (Schedule 178)	All Therms	\$0.00000
Regulatory Fee (Schedule 181)	All Therms	\$0.00040
Environmental Cost Recovery (Schedule 183)	All Therms	\$0.01029
Decoupling Adjustment (Schedule 190)	All Therms	(\$0.00728)
WARM True-up (Schedule 195)	All Therms	\$0.00136
Holding Company Formation Credits (Schedule 173)	All Therms	(\$0.00090)

(N)

(C)

#### Schedule 3: Basic Firm Sales - Non-Residential

	Applicable	Firm Sales	
		Commercial	Industrial
Deferred Gas Cost Amortization (Schedule 162)	All Therms	(\$0.02747)	(\$0.02747)
Intervenor Funding (Schedule 172)	All Therms		\$0.00022
Misc. Deferred Adjustments (Schedule 178)	All Therms	\$0.00000	\$0.00000
Regulatory Fee (Schedule 181)	All Therms	\$0.00034	\$0.00032
Environmental Cost Recovery (Schedule 183)	All Therms	\$0.00720	\$0.00617
Industrial DSM (Schedule 188)			\$0.04968
Decoupling Adjustment (Schedule 190)	All Therms	\$0.05405	
WARM True-up (Schedule 195)	All Therms	\$0.00377	
Holding Company Formation Credits (Schedule 173)	All Therms	(\$0.00063)	(\$0.00054)

(N)

(C)

(continue to Sheet 100-2)

Issued October 30, 2018  
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Effective with service on  
and after November 1, 2018

**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

Third Revision of Sheet 100-2  
 Cancels Second Revision of Sheet 100-2

**SCHEDULE 100**  
**SUMMARY OF TEMPORARY ADJUSTMENTS**  
 (continued)

**TABLE OF TEMPORARY ADJUSTMENTS (continued): Effective: November 1, 2018**

**Rate Schedule 27: Residential Heating Dry Out Service**

	FIRM SALES	
	Applicable	Commercial
Deferred Gas Cost Amortization (Schedule 162)	All Therms	(\$0.02747)
Misc. Deferred Adjustments (Schedule 178)	All Therms	\$0.00000
Regulatory Fee (Schedule 181)	All Therms	\$0.00035
Environmental Cost Recovery (Schedule 183)	All Therms	\$0.00810
Holding Company Formation Credits (Schedule 173)	All Therms	(\$0.00071)

(N)

**Schedule 31: Non-Residential Firm Sales and Firm Transportation**

	Applicable	FIRM SALES		FIRM TRANSPORTATION	
		Commercial	Industrial	Commercial	Industrial
Deferred Gas Cost Amortization (Schedule 162)	All Blocks	(\$0.02747)	(\$0.02747)		
Intervenor Funding (Schedule 172)	All Blocks		\$0.00022		\$0.00022
Misc. Deferred Adjustments (Schedule 178)	All Blocks	\$0.00000	\$0.00000	\$0.00000	\$0.00000
Regulatory Fee (Schedule 181)	All Blocks	\$0.00031	\$0.00026	\$0.00013	\$0.00010
Environmental Cost Recovery (Schedule 183)	Block 1	\$0.00566	\$0.00404	\$0.00578	\$0.00427
	Block 2	\$0.00517	\$0.00365	\$0.00529	\$0.00386
Industrial DSM (Schedule 188)	All Blocks		\$0.04968		
Decoupling Adjustment (Schedule 190)	All Blocks	\$0.05405			
Holding Company Formation Credits (Schedule 173)	Block 1	(\$0.00049)	(\$0.00035)	(\$0.00051)	(\$0.00037)
	Block 2	(\$0.00045)	(\$0.00032)	(\$0.00046)	(\$0.00034)

(N)  
(N)

**Schedule 32: Large Volume Non-Residential Sales and Transportation**

	Applicable	FIRM SALES		FIRM TRANSPORTATION	
		Commercial	Industrial	Commercial	Industrial
Deferred Gas Cost Amortization (Schedule 162)	All Blocks	(\$0.02747)	(\$0.02747)		
Intervenor Funding (Schedule 172)	All Blocks		\$0.00022	\$0.00022	\$0.00022
Misc. Deferred Adjustments (Schedule 178)	All Blocks	\$0.00000	\$0.00000	\$0.00000	\$0.00000
Regulatory Fee (Schedule 181)	All Blocks	\$0.00025	\$0.00021	\$0.00004	\$0.00004
Environmental Cost Recovery (Schedule 183)	Block 1	\$0.00377	\$0.00264	\$0.00236	\$0.00236
	Block 2	\$0.00320	\$0.00224	\$0.00200	\$0.00200
	Block 3	\$0.00226	\$0.00158	\$0.00142	\$0.00142
	Block 4	\$0.00132	\$0.00092	\$0.00083	\$0.00083
	Block 5	\$0.00075	\$0.00053	\$0.00047	\$0.00047
	Block 6	\$0.00038	\$0.00027	\$0.00024	\$0.00024
Industrial DSM (Schedule 188)	All Blocks	\$0.04968	\$0.04968		
Holding Company Formation Credits (Schedule 173)	Block 1	(\$0.00033)	(\$0.00023)	(\$0.00021)	(\$0.00021)
	Block 2	(\$0.00028)	(\$0.00020)	(\$0.00018)	(\$0.00018)
	Block 3	(\$0.00020)	(\$0.00014)	(\$0.00012)	(\$0.00012)
	Block 4	(\$0.00012)	(\$0.00008)	(\$0.00007)	(\$0.00007)
	Block 5	(\$0.00007)	(\$0.00005)	(\$0.00004)	(\$0.00004)
	Block 6	(\$0.00003)	(\$0.00002)	(\$0.00002)	(\$0.00002)

(N)  
(N)  
(N)

(continue to Sheet 100-3)

Issued on October 30, 2018  
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# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Fourth Revision of Sheet 100-3  
Cancels Third Revision of Sheet 100-3

## SCHEDULE 100 SUMMARY OF TEMPORARY ADJUSTMENTS (continued)

### TABLE OF TEMPORARY ADJUSTMENTS (continued): Effective: November 1, 2018

#### Schedule 32: Large Volume Non-Residential Sales and Transportation

	Applicable	INTERRUPTIBLE SALES		INTERRUPTIBLE TRANSPORT
		Commercial	Industrial	All
Deferred Gas Cost Amortization (Schedule 162)	All Blocks	(\$0.02223)	(\$0.02223)	
Intervenor Funding (Schedule 172)	All Blocks		\$0.00022	\$0.00022
Misc. Deferred Adjustments (Schedule 178)	All Blocks	\$0.00000	\$0.00000	\$0.00000
Regulatory Fee (Schedule 181)	All Blocks	\$0.00017	\$0.00015	\$0.00001
Environmental Cost Recovery (Schedule 183)	Block 1	\$0.00223	\$0.00222	\$0.00197
	Block 2	\$0.00190	\$0.00189	\$0.00167
	Block 3	\$0.00134	\$0.00133	\$0.00118
	Block 4	\$0.00078	\$0.00078	\$0.00069
	Block 5	\$0.00045	\$0.00044	\$0.00039
	Block 6	\$0.00022	\$0.00022	\$0.00020
Industrial DSM (Schedule 188)	All Blocks	\$0.04968	\$0.04968	
Holding Company Formation Credits (Schedule 173)	Block 1	(\$0.00020)	(\$0.00019)	(\$0.00017)
	Block 2	(\$0.00017)	(\$0.00016)	(\$0.00015)
	Block 3	(\$0.00012)	(\$0.00012)	(\$0.00010)
	Block 4	(\$0.00007)	(\$0.00007)	(\$0.00006)
	Block 5	(\$0.00004)	(\$0.00004)	(\$0.00003)
	Block 6	(\$0.00002)	(\$0.00002)	(\$0.00002)

(N)  
↓  
(N)

#### Rate Schedule 33: High Volume Non-Residential Firm Transportation and Interruptible Service

	Applicable	FIRM TRANSPORTATION	
		Commercial	Industrial
Environmental Cost Recovery (Schedule 183)	All Therms	\$0.00013	\$0.00013
Misc. Deferred Adjustment (Schedule 178)	All Therms	\$0.00000	\$0.00000
Holding Company Formation Credits (Schedule 173)	All Therms	(\$0.00001)	(\$0.00001)

(N)

	Applicable	INTERRUPTIBLE TRANSPORTATION
		All
Environmental Cost Recovery (Schedule 183)	All Therms	\$0.00013
Misc. Deferred Adjustment (Schedule 178)	All Therms	\$0.00000
Holding Company Formation Credits (Schedule 173)	All Therms	(\$0.00001)

(N) (C)

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# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

First Revision of Sheet 167-1  
Cancels Original Sheet 167-1

## SCHEDULE 167 GENERAL ADJUSTMENTS TO RATES

**PURPOSE:**

To identify adjustments made to the billing rates stated in the Rate Schedules listed below to reflect the effects of general rate changes approved by the Commission under the authority of ORS 757.210

(C)  
(C)

**DESCRIPTION:**

The general rate changes shown in this Schedule 167 reflect the outcome of a Commission investigation in Docket UG-344 initiated following a Company request to change rates due to increases or decreases in the cost of general utility operations.

(N)  
|  
(N)

**APPLICABLE:**

To Customers taking service under the following Rate Schedules of this Tariff:

Rate Schedule 2	Rate Schedule 27	Rate Schedule 32
Rate Schedule 3	Rate Schedule 31	Rate Schedule 33

**RATE ADJUSTMENTS:** Effective: November 1, 2018

The Base Rates stated in the listed Rate Schedules were adjusted as follows:

(C)  
(T)

Schedule/Class	Adjustment Amount		Schedule/Class	Adjustment Amount	
	Customer Charge	Volumetric Charge		Customer Charge	Volumetric Charge
02R	\$0.00	\$0.04068	03 CSF	\$0.00	\$0.02872
27	\$0.00	\$0.03131	03 ISF	\$0.00	\$0.02459

(C)

Schedule/Class	Block	Amount	Schedule/Class	Block	Amount	Schedule/Class	Block	Amount
31 CSF	Cust. Charge	\$0.00	32 CSF	Cust. Charge	\$0.00	32 CSI	Cust. Charge	\$0.00
	Block 1	\$0.02303		Block 1	\$0.01612		Block 1	\$0.00968
	Block 2	\$0.02105		Block 2	\$0.01370		Block 2	\$0.00823
31CTF	Cust. Charge	\$0.00	31 ISF	Block 3	\$0.00968	32 ISI	Block 3	\$0.00581
	Block 1	\$0.02253		Block 4	\$0.00564		Block 4	\$0.00339
	Block 2	\$0.02060		Block 5	\$0.00000		Block 5	\$0.00194
31 ISF	Cust. Charge	\$0.00	32 ISF	Block 6	\$0.00000	32 ITI	Block 6	\$0.00000
	Block 1	\$0.01641		Cust. Charge	\$0.00		Cust. Charge	\$0.00
	Block 2	\$0.01483			Block 1			\$0.01179
31 ITF	Cust. Charge	\$0.00	32 ITF/CTF	Block 2	\$0.01002	32 CTI/ITI	Block 2	\$0.00810
	Block 1	\$0.01792		Block 3	\$0.00707		Block 3	\$0.00572
	Block 2	\$0.01620		Block 4	\$0.00413		Block 4	\$0.00334
				Block 5	\$0.00000		Block 5	\$0.00191
				Block 6	\$0.00000		Block 6	\$0.00000
				Cust. Charge	\$0.00		Cust. Charge	\$0.00
				Block 1	\$0.01060		Block 1	\$0.00779
				Block 2	\$0.00901		Block 2	\$0.00663
				Block 3	\$0.00636		Block 3	\$0.00468
				Block 4	\$0.00371		Block 4	\$0.00273
				Block 5	\$0.00212		Block 5	\$0.00156
				Block 6	\$0.00106		Block 6	\$0.00078
						33	All	\$0.00000

(C)

**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 Schedule apply to service under this Schedule, and by all rules and regulations prescribed by regulatory authorities, as amended from time to time.

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and after November 1, 2018

**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

Third Revision of Sheet 180-1  
Cancels Second Revision of Sheet 180-1

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**SCHEDULE 180  
SPECIAL RATE ADJUSTMENT FOR WORKING GAS INVENTORY**

--CANCELLED--

(C)  
(D)

(continue to Sheet 180-2)

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**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

First Revision of Sheet 180-2

Cancels Original Sheet 180-2

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**SCHEDULE 180**  
**SPECIAL RATE ADJUSTMENT FOR WORKING GAS INVENTORY**  
(continued)

--CANCELLED--

(C)  
(D)

Issued October 30, 2018  
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**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

Fourth Revision of Sheet 184-1  
Cancels Third Revision of Sheet 184-1

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**SCHEDULE 184  
SPECIAL RATE ADJUSTMENT  
GASCO UPLAND PUMPING STATION**

--CANCELLED--

(C)  
(D)

(continue to Sheet 184-2)

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**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

Third Revision of Sheet 184-2  
Cancels Second Revision of Sheet 184-2

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**SCHEDULE 184**  
**SPECIAL RATE ADJUSTMENT**  
**GASCO UPLAND PUMPING STATION**  
(continued)

--CANCELLED--

(C)  
(D)

(continue to Sheet 184-3)

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

**NORTHWEST NATURAL GAS COMPANY**

P.U.C. Or. 25

First Revision of Sheet 184-3

Cancels Original Sheet 184-3

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**SCHEDULE 184  
SPECIAL RATE ADJUSTMENT  
GASCO UPLAND PUMPING STATION**

(continued)

--CANCELLED--

(C)  
(D)

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

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**SCHEDULE 185**  
**SPECIAL ANNUAL INTERSTATE AND INTRASTATE**  
**STORAGE AND TRANSPORTATION CREDIT**

(continued)

**SPECIAL CONDITIONS:**

1. NW Natural will share with customers served under the Rate Schedules listed above, the net margin received from interstate and intrastate storage service on an 80/20 basis; 80% will be retained by NW Natural, and 20% will be shared with customers through the credit provided for in this schedule. For this purpose, net margin is defined as revenues less incremental operating and maintenance (O&M) expense, less incremental capital-related costs, on a before income tax basis. Incremental capital-related costs include depreciation, interest, property taxes, and any other costs customarily relating to a utility investment other than return on equity. The imputed capital structure for this purpose shall be 50% debt and 50% equity, with the cost of debt defined as the average long-term cost of debt authorized by the OPUC in the Company's last general rate case.
2. The interstate and intrastate annual service credit shall be based on the net margin as described in paragraph 1 above, and as filed with the Commission. This credit shall be applied to customers' bills, or placed in an interest bearing deferred account, on June 1 of each year, or at a date other than June 1 for reasons and on terms as the Commission may approve.
3. If the net margin for the year is negative (a loss) then the credit will be zero.
4. In addition to the interstate and intrastate storage service sharing, NW Natural will share with customers served under the Rate Schedules listed above, net margin revenue that is attributable to optimization of core customer storage and related transportation services on a 90/10 basis; 10% will be retained by NW Natural, and 90% will be shared with customers through the credit provided for in this schedule. For this purpose, net margin is defined as revenues less incremental operating and maintenance (O&M) expense. (C)
5. As provided under "OUT-OF-CYCLE TRANSFERS" provision set forth in Rate Schedules 31 and 32, a Customer that exercises the Capacity Release Option may only be eligible to receive one-half of the above-listed credit.

**PRIOR YEAR BALANCES:**

The Company will include any remaining balance from the prior year's credit in the calculation of the current year's credit.

**TERM OF SCHEDULE:**

Application of the § 284.224 service credit under this Schedule is contingent upon continued FERC approval of NW Natural's § 284.224 Limited Jurisdiction Blanket Certificate.

**GENERAL TERMS:**

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

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Seventh Revision of Sheet 186-1  
Cancels Sixth Revision of Sheet 186-1

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## SCHEDULE 186 SPECIAL ANNUAL CORE PIPELINE CAPACITY OPTIMIZATION CREDIT

### **PURPOSE:**

To credit Sales Service Customers served under the below-listed Rate Schedules for the Oregon share of revenues received by NW Natural for the optimization of core customer Pipeline and Storage capacity.

### **APPLICABLE:**

This credit shall apply to customer bills issued during the June billing cycle of each calendar year, or such other time period as the Commission may approve. The credit shall apply to the following Sales Service Rate Schedules of this Tariff:

Rate Schedule 2	Rate Schedule 31 ISF	Rate Schedule 32 ISF
Rate Schedule 3	Rate Schedule 31 CSF	Rate Schedule 32 CSI
	Rate Schedule 32 CSF	Rate Schedule 32 ISI

### **CREDIT:**      **Effective Billing Cycle: June 2018**

The bill credit to be applied to Customer bills during the effective billing cycle will be calculated by multiplying the following per therm credit by the customer's actual gas usage billed during the period January 1, 2017 through December 31, 2017:

(\$0.01310)

### **SPECIAL CONDITIONS:**

1. NW Natural will share with customers served under the Rate Schedules listed above, the amount of net margin revenue that is attributable to optimization of core customer Pipeline and Storage capacity on an 90/10 basis; 10% will be retained by NW Natural, and 90% will be shared with customers through the credit provided for in this Schedule. For this purpose, net margin is defined as revenues less incremental operating and maintenance (O&M) expense. (C)
2. The annual credit shall be based on the net margin as described in paragraph 1 above, and as filed with the Commission. This credit shall be applied to customers' bills, or placed in an interest bearing deferred account, on June 1 of each year, or at a date other than June 1 for reasons and on terms as the Commission may approve.
3. If the net margin for the year is negative (a loss) then the credit will be zero.
4. As provided under "OUT-OF-CYCLE TRANSFERS" provision set forth in Rate Schedules 31 and 32 a Customer that exercises the Capacity Release Option may only be eligible to receive one-half of the above-listed credit.

### **PRIOR YEAR BALANCES:**

The Company will include any remaining balance from the prior year's credit in the calculation of the current year's credit.

### **GENERAL TERMS:**

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

Issued October 30, 2018  
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Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Second Revision of Sheet 187-1  
Cancels First Revision of Sheet 187-1

## SCHEDULE 187 SPECIAL RATE ADJUSTMENT FOR MIST CAPACITY RECALL

**PURPOSE:**

The purpose of this Schedule is to reflect the rate effects of the Company's recall of Mist storage capacity for use by the Company's core Sales Service Customers.

**APPLICABLE:**

To the following Rate Schedules of this Tariff:

Rate Schedule 2

Rate Schedule 3  
Rate Schedule 27

Rate Schedule 31  
Rate Schedule 32

**APPLICATION TO RATE SCHEDULES:**

Effective: November 1, 2018

(C)

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.

Rate Schedule/Class	Block	Mist Recall Base Adjustment		Schedule	Block	Mist Recall Base Adjustment
2		\$0.00000		31 CSF	Block 1	\$0.00000
03 CSF		\$0.00000			Block 2	\$0.00000
03 ISF		\$0.00000		31 ISF	Block 1	\$0.00000
27		\$0.00000			Block 2	\$0.00000
32 CSF	Block 1	\$0.00000		32 CSI	Block 1	\$0.00000
	Block 2	\$0.00000			Block 2	\$0.00000
	Block 3	\$0.00000			Block 3	\$0.00000
	Block 4	\$0.00000			Block 4	\$0.00000
	Block 5	\$0.00000			Block 5	\$0.00000
	Block 6	\$0.00000			Block 6	\$0.00000
32 ISF	Block 1	\$0.00000		32 ISI	Block 1	\$0.00000
	Block 2	\$0.00000			Block 2	\$0.00000
	Block 3	\$0.00000			Block 3	\$0.00000
	Block 4	\$0.00000			Block 4	\$0.00000
	Block 5	\$0.00000			Block 5	\$0.00000
	Block 6	\$0.00000			Block 6	\$0.00000

(C)

(C)

**GENERAL TERMS:**

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

Issued October 30, 2018  
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# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Eighth Revision of Sheet 190-1  
Cancels Seventh Revision of Sheet 190-1

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## SCHEDULE 190 PARTIAL DECOUPLING MECHANISM

### PURPOSE:

To (a) describe the partial decoupling mechanism established in accordance with Commission Order in Docket UG -221 and Commission Order 18-419 in Docket UG 344; and (b) identify the adjustment applicable to rates under the Rate Schedules listed below. (C)

### APPLICABLE:

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

Residential	Commercial
Rate Schedule 2	Rate Schedule 3 CSF
	Rate Schedule 31 CSF

### ADJUSTMENT TO RATE SCHEDULES:

Effective: **November 1, 2018** (C)

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

Residential Rate Schedules:	<b>(\$0.00728)</b> (C)
Commercial Rate Schedule 3:	<b>\$0.05405</b> (C)
Commercial Rate Schedule 31:	<b>\$0.05405</b> (N)

### PARTIAL DECOUPLING DEFERRAL ACCOUNT:

1. 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 October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

**SCHEDULE 190**  
**PARTIAL DECOUPLING MECHANISM**  
(continued)

**PARTIAL DECOUPLING DEFERRAL ACCOUNT (continued):**

2. The baseline use-per-customer is:

Residential:	635.7	(C)
Commercial (Schedule 3):	2,852.9	(C)
Commercial (Schedule 31):	34,445.2	(N)

3. Weather-normalized usage is calculated using the approach to weather normalization adopted in the Company's last general rate case, Docket UG 344. The weather data is taken from the stations identified in **Rule 24**. (C)

Step One. For the heating season months of December through April, 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. Usage for the heating season months of November and May will be normalized by the actual WARM effect attributable to the month that is included in customer bills for rate schedules 2 and commercial 3. For commercial schedule 31, no normalization will be done in November and May. (C)  
(N)

Step Two. This step derives the per-therm customer variance by multiplying the heating degree-day difference by the usage coefficient of .16327 for Residential variances, .68499 for Commercial (Schedule 3) variances, and 6.96483 for Commercial (Schedule 31) variances. (C)  
(N)

Step Three. 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, 2018 is \$0.48538 per therm for Residential customers and \$0.38314 per therm for Commercial (Schedule 3) customers and \$0.22677 per therm for Commercial (Schedule 31) customers. (C)  
(N)

6. Coincident with the Company's annual Purchased Gas Cost and Technical Rate Adjustment filing, the Company shall apply an adjustment to Residential and Commercial rates to amortize over the following 12 months, the balance in the balancing account as of June 30.

7. This Schedule is an "automatic adjustment clause" as defined in ORS 757.210, and is subject to review by the Commission at least once every two (2) years.

**GENERAL TERMS:**

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

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Fourth Revision of Sheet 195-1  
Cancels Third Revision of Sheet 195-1

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## SCHEDULE 195 WEATHER ADJUSTED RATE MECHANISM (WARM Program)

### **PURPOSE:**

To describe the Weather Adjusted Rate Mechanism (WARM) adopted by the Public Utility Commission of Oregon in Docket UG 221, Order No. 12-408 entered October 26, 2012, as modified in Docket UM 1750 by Commission Order No. 16-223 entered June 20, 2016.

### **APPLICABLE:**

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

Rate Schedule 2	Rate Schedule 3
-----------------	-----------------

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

The WARM Adjustment will be applied as an adjustment to the per-therm Billing Rate on applicable Residential and Commercial Customer bills issued during the WARM Period. The WARM Period covers bills that are generated based on meters read on or after December 1<sup>st</sup> and on or before May 15<sup>th</sup>.

### **SPECIAL CONDITIONS:**

1. The WARM Adjustment will apply to Customer bills that are based on applicable Residential Rate Schedule 2 or Commercial Rate Schedule 3 meters read on or after December 1<sup>st</sup> and on or before May 15<sup>th</sup>.
2. Residential bills --The maximum WARM Adjustment (increase or decrease) that will be made to any regular monthly bill during the WARM Period will be twelve dollars (\$12.00), or twenty-five percent (25%) of the usage portion of that bill, whichever is less. For any billing period in which the total monthly WARM adjustment exceeds either \$12.00 or 25% of the usage, the balance of the WARM adjustment will be deferred in accordance with Special Condition 4.
3. Commercial bills--The maximum WARM Adjustment (increase or decrease) that will be added to any regular monthly bill during the WARM Period will be thirty-five dollars (\$35.00), or twenty-five percent (25%) of the usage portion of that bill, whichever is less. For any billing period in which the total monthly WARM adjustment exceeds either thirty-five dollars or 25% of the usage, the balance of the WARM adjustment will be deferred in accordance with Special Condition 4.
4. Any amounts not applied to a Residential or Commercial Customer's bill during the WARM Period due to the caps and floor described in Special Conditions 2 and 3 will be set aside in a respective Residential or Commercial WARM deferral account. Each year, concurrent with the Company's annual Purchased Gas Adjustment (PGA) filing, the balance in the Residential and Commercial WARM deferral accounts will be collected from or credited to all Rate Schedule 2 and Rate Schedule 3 customers, respectively, on an equal cent-per-therm basis. The adjustment included in the Temporary Adjustments reflected in the above-listed Rate Schedules effective November 1, 2018 are:

Rate Schedule 2:	\$	0.00136	(C)
Rate Schedule 3:	\$	0.00377	(C)

(continue to Sheet 195-2)

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018



# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Second Revision of Sheet 195-3  
Cancels First Revision of Sheet 195-3

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## SCHEDULE 195 WEATHER ADJUSTED RATE MECHANISM (WARM Program) (continued)

9. Upon request, the Company will provide Customer with historical billing information that reflects bills with and without the WARM adjustment for any month during the WARM Period.
10. Should a change to the margin rate occur during the WARM Period, the equivalent therms used in the calculation of the WARM adjustment will be based on the entire billing period, and then prorated based upon the number of days applicable to each margin rate. The pro-rated therms are then multiplied by the applicable margin rate to determine the WARM adjustment for each rate period. Example: If a margin rate change occurred on January 1, a bill with a bill period between December 25 and January 24 would be prorated based upon 6 days at the prior margin rate and 24 days at the new margin rate. The calculations performed under the provisions of Special Conditions 2 and 3 will apply to each prorated period separately, except that the total WARM adjustment for each bill will not exceed the maximum (increase or decrease) WARM adjustment specified in Special Conditions 2 and 3.

### WARM FORMULA:

1. The Formula is: 
$$\text{WARM Adjustment} = \sum_1^T (HDD_{n,t} - HDD_{a,t}) * B * Mrgn$$

Where:

$T$  = the days covered by the meter read dates for an individual customer's bill

$HDD_n$  = the 25 year average of heating degree-days for each day (1986-2010) determined using a 25-year average temperature published by the National Oceanic and Atmospheric Administration (NOAA).

$HDD_a$  = the actual heating degree-days for each day based on the individual customer's actual beginning and ending meter read dates

$B$  = the statistical coefficient relating heating degree-days to therm use determined in the most recent general rate case, or other Commission authorized proceeding.

$Mrgn$  = the relevant Rate Schedule margin defined as the current Billing Rate less the current Commodity Rate, Pipeline Capacity Charge, and any Temporary Adjustments.

2. For purposes of calculating the WARM Adjustment, the following shall apply:
  - a. A Heating Degree Day (HDD) is defined as the extent by which the daily mean temperature falls below a specified set point on a specified day. The HDD calculation uses a set point temperature of 59 degrees Fahrenheit for the **Rate Schedule 2** calculation, and 58 degrees Fahrenheit for the **Rate Schedule 3** calculation;
  - b. The statistical coefficients to be used in the calculation of the WARM Adjustment Factor effective with the WARM Period commencing November 1, 2018 are:

(C)

Rate Schedule 2:	0.16327	Rate Schedule 3:	0.68499
------------------	---------	------------------	---------

(C)

(continue to Sheet 195-4)

Issued October 30, 2018  
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Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

Fourth Revision of Sheet 195-4  
Cancels Third Revision of Sheet 195-4

## SCHEDULE 195 WEATHER ADJUSTED RATE MECHANISM (WARM Program) (continued)

### WARM FORMULA: (continued)

- c. The applicable margins to be used in the calculation of the WARM Adjustment Factor effective with the WARM Period commencing November 1, 2018 are:

Rate Schedule 2:	\$0.48538	Rate Schedule 3:	\$0.38314
------------------	-----------	------------------	-----------

(C)  
(C)

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.

HDD Variance (+ or -)	RESIDENTIAL		COMMERCIAL	
	Equivalent therms	Total Monthly WARM adjustment (+ or -)	Equivalent therms	Total Monthly WARM adjustment (+ or -)
1	0.1633	\$0.08	0.685	\$0.26
5	0.8164	\$0.40	3.425	\$1.31
10	1.6327	\$0.79	6.8499	\$2.62
15	2.4491	\$1.19	10.2749	\$3.94
20	3.2654	\$1.58	13.6998	\$5.25
25	4.0818	\$1.98	17.1248	\$6.56
30	4.8981	\$2.38	20.5497	\$7.87
35	5.7145	\$2.77	23.9747	\$9.19
40	6.5308	\$3.17	27.3996	\$10.50
45	7.3472	\$3.57	30.8246	\$11.81
50	8.1635	\$3.96	34.2495	\$13.12

(C)  
(C)

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 October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
and after November 1, 2018

# NORTHWEST NATURAL GAS COMPANY

P.U.C. Or. 25

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

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## 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 \$0.81780 cents per therm, the HDD variance is 50 HDDs colder than normal, and the monthly therm usage is 129 therms: (C)

HDD Differential:	Normal HDDs:	600 HDDs	
	Actual HDDs:	650 HDDs	
	HDD variance:	$600 - 650 = -50$ HDDs	
Equivalent Therms:	HDD variance:	-50 HDDs	
	Statistical coefficient:	0.16327	(C)
	Equivalent therms:	$-50 \times 0.16327 = -8.1635$ therms	
Total Warm Adjustment:	Equivalent therms:	-8.1635 therms	
	Margin Rate:	\$0.48538	
	Total WARM Adj.:	$-8.1635 \times \$0.48538 = (\$3.96240)$	(C)
Total WARM Adjustment converted to cents per therm:	Total WARM Adj.	(\$3.96240)	(C)
	Monthly usage:	129 therms	
	Cent/therm Adj.:	$-\$3.96240 / 129 = (\$0.03072)$	(C)
Billing Rate per therm:	Current Rate/therm:	\$0.81780	(R)
	WARM cent/therm Adj.	(\$0.03072)	
	WARM Billing Rate:	$\$0.81780 + (\$0.03072) = \$0.78708$	(R)
Total WARM Bill:	Customer Charge:	\$8.00	
	Usage Charge:	\$0.78708	(R)
	Total	$(129 \times \$0.78708) + \$8.00 = \$109.53$	(R)

#### GENERAL TERMS:

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

Issued October 30, 2018  
NWN OPUC Advice No. 18-13

Effective with service on  
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**NW Natural**  
**UG 344**  
**Twelve Months Ended October 31, 2019**  
**(000)**

	2017 Results Per Company Filing at Present Rates (1)	(2)	2019 Results Per Company Filing (3)	Company Filed Required Change for Reasonable Return (4)	Company Filed 2019 Results at Reasonable Return (5)	Adjustments to Company 2019 Results (6)	Adjusted 2019 Company Results (3) + (6) (7)	Required Change for Reasonable Return (8)	Results at Reasonable Return (7) + (8) (9)	
<b>SUMMARY SHEET</b>										
1	<b>Operating Revenues</b>									
2	General Business	637,346	(27,330)	610,016	37,816	647,831	-	610,016	23,427	633,443
3	Transportation	17,390	(743)	16,647	-	16,647	-	16,647	-	16,647
4	Decoupling	11,599	(11,599)	-	-	-	-	-	-	-
5	WARM	(16,622)	16,622	-	-	-	-	-	-	-
6	Miscellaneous Revenues	3,564	(138)	3,426	-	3,426	70	3,496	-	3,496
7	Total Operating Revenues	653,277	(23,189)	630,089	37,816	667,904	70	630,159	23,427	653,586
8	<b>Operating Expenses</b>									
9	Gas Purchased	291,761	(14,907)	276,854	-	276,854	-	276,854	-	276,854
10	Transmission & Storage	7,428	(111)	7,317	-	7,317	(16)	7,301	-	7,301
11	Distribution	47,904	(355)	47,549	-	47,549	(240)	47,309	-	47,309
12	Customer Accounts	19,047	(855)	18,191	-	18,191	-	18,191	-	18,191
13	Customer Service	4,817	(301)	4,516	-	4,516	(100)	4,416	-	4,416
14	Sales	4,229	73	4,302	-	4,302	-	4,302	-	4,302
15	OPUC Fees	1,960	(70)	1,890	113	2,004	0	1,890	70	1,961
16	Franchise Fees	15,483	(550)	14,933	896	15,829	2	14,935	555	15,490
17	Uncollectibles	716	(7)	710	43	753	0	710	27	736
18	General Operations & Maintenance	3,916	539	4,456	-	4,456	-	4,456	-	4,456
19	Admin & General Expenses	44,003	13,115	57,118	-	57,118	(2,464)	54,654	-	54,654
20	Environmental Rider	5,000	-	5,000	-	5,000	-	5,000	-	5,000
21	Total Operation & Maintenance	446,263	(3,427)	442,836	1,053	443,889	(2,818)	440,018	652	440,670
22	Depreciation & Amortization	71,362	5,009	76,371	-	76,371	(1,963)	74,408	-	74,408
23	Taxes Other than Income	26,214	2,337	28,551	-	28,551	(353)	28,198	-	28,198
24	Equity Floatation	-	1,198	1,198	-	1,198	(1,198)	-	-	-
25	Income Taxes	35,096	(19,660)	15,435.6727	9,927	25,363	1,915	17,350	6,150	23,500
26	Total Operating Expenses	578,935	(14,544)	564,392	10,980	575,372	(4,418)	559,974	6,802	566,776
27	Net Operating Revenues	74,342	(8,645)	65,697	26,836	92,532	4,488	70,185	16,625	86,810
28	<b>Average Rate Base</b>									
29	Utility Plant in Service	2,576,151	13,674	2,831,198	-	2,831,198	(62,025)	2,769,173	-	2,769,173
30	Less: Accumulated Depreciation & Amortization	(1,143,047)	(6,365)	(1,244,909)	-	(1,244,909)	32,786	(1,212,123)	-	(1,212,123)
31	Accumulated Deferred Income Taxes	(396,737)	(70)	(409,841)	-	(409,841)	1,048	(408,793)	-	(408,793)
32	Accumulated Deferred Inv. Tax Credit	-	-	-	-	-	-	-	-	-
33	Net Utility Plant	1,036,366	7,238	1,176,449	-	1,176,449	(28,191)	1,148,257	-	1,148,257
34	Plant Held for Future Use	-	-	-	-	-	-	-	-	-
35	Other Rate Base	-	-	-	-	-	-	-	-	-
36	Aid in Advance of Construction	(3,298)	(179)	(3,476)	-	(3,476)	-	(3,476)	-	(3,476)
37	Customer Deposits	(4,189)	340	(3,849)	-	(3,849)	(291)	(4,140)	-	(4,140)
38	Gas Inventory	54,775	(19,402)	35,373	-	35,373	-	35,373	-	35,373
39	Materials & Supplies	9,087	1,312	10,399	-	10,399	-	10,399	-	10,399
40	Weatherization Loans	-	-	-	-	-	-	-	-	-
41	Prepayments	-	-	-	-	-	-	-	-	-
42	Misc. Deferred Debits & Credits	-	-	-	-	-	-	-	-	-
43	Misc. Rate Base Additions/(Deductions)	-	-	-	-	-	-	-	-	-
44	Total Average Rate Base	1,092,742	122,154	1,214,895	-	1,214,895	(28,482)	1,186,413	-	1,186,413
45	<b>Rate of Return</b>	6.803%		5.408%		7.616%		5.916%		7.317%
46	<b>Implied Return on Equity</b>	5.582%		5.582%		10.000%		6.597%		9.400%

NW Natural  
Docket UG 344  
Test Year Twelve Months Ended October 31, 2019  
Rate Spread Study - Equal Percent of Margin Basis

Line No.	CUSTOMER CLASS	Residential		Commercial		Industrial		Commercial		Industrial		Commercial		Industrial		Commercial		Industrial										
		Sales Firm	02	Sales Firm	03CSF	Sales Firm	03ISF	Sales Firm	27CSF	Sales Firm	31CSF	Sales Firm	31CTF	Sales Firm	31ISF	Sales Firm	31TF	Sales Firm	32CSF	Sales Firm	32ISF	Sales Firm	32TF	Sales Firm	32SI	Sales Firm	32TI	
1	Current Revenue*	\$624,873,692	\$387,770,097	\$137,975,522	\$3,740,132	\$1,038,854	\$18,521,031	\$1,113,636	\$8,813,710	\$89,844	\$24,565,050	\$7,608,655	\$7,460,021	\$9,271,906	\$10,710,650	\$6,194,584												
2	Current Margin % of Current Margin (@ current rates)	\$348,020,183	\$232,672,334	\$71,019,860	\$1,780,460	\$556,990	\$8,316,491	\$1,113,636	\$3,187,208	\$89,844	\$8,865,834	\$2,060,888	\$7,460,021	\$2,181,744	\$2,520,290	\$6,194,584												
3		100.00%	66.86%	20.41%	0.51%	0.16%	2.39%	0.32%	0.92%	0.03%	2.55%	0.59%	2.14%	0.63%	0.72%	1.78%												
4	Incremental Increase to Revenue Requirement	\$23,427,000																										
5	% Increase to Current Revenue	3.75%																										
6	Proposed Revenue Increase	\$23,427,000	\$15,662,352	\$4,780,706	\$119,852	\$37,494	\$559,825	\$74,964	\$214,547	\$6,048	\$596,804	\$138,729	\$502,172	\$146,864	\$169,653	\$416,989												
7	Proposed Revenue	\$648,300,692	\$403,432,450	\$142,756,228	\$3,859,883	\$1,076,348	\$19,080,856	\$1,188,601	\$9,028,257	\$95,892	\$25,161,854	\$7,747,384	\$7,962,193	\$9,418,770	\$10,880,303	\$6,611,573												
8	Proposed Margin	\$371,447,183	\$248,334,686	\$75,800,566	\$1,900,312	\$594,483	\$8,876,316	\$1,188,601	\$3,401,756	\$95,892	\$9,462,638	\$2,199,616	\$7,962,193	\$2,328,608	\$2,689,943	\$6,611,573												

Oregon Total

NW Natural Rates & Regulatory Affairs  
 UG 344: Compliance Filing  
 Effects on Average Bill by Rate Schedule [1]

ALL VOLUMES IN THERMS

Schedule	APPROVED Rates via docket lists						BILL IMPACTS						Therms in Block	
	UG 344 Base Rates	UG 344 Base Rate Adjustment	UG 344 PGA Adjustment	UG 385 Temporary Increments	UG 348-354&365 Calculated Billing Rates [1]	Customer Charge	Rate Case Annual Volumes	Rate Case End of Period Customers	H	I	J	K		L
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2R	\$0.48538	\$0.00000	\$0.32819	\$0.00423	\$0.81780	\$6.00	385,050,429	606,831	53	\$52.44	\$51.34	(\$1.10)	-2.10%	N/A
3C Firm Sales	\$0.38314	\$0.00000	\$0.32819	\$0.06473	\$0.77606	\$15.00	166,461,516	58,617	237	\$203.85	\$198.93	(\$4.92)	-2.41%	N/A
3F Firm Sales	\$0.36771	\$0.00000	\$0.32819	\$0.05585	\$0.75175	\$15.00	4,874,416	355	1,144	\$896.26	\$875.00	(\$21.26)	-2.37%	N/A
27 Dry Out	\$0.36972	\$0.00000	\$0.32819	\$0.00774	\$0.70565	\$6.00	1,197,618	1,962	51	\$43.43	\$41.99	(\$1.44)	-3.32%	N/A
31C Firm Sales	\$0.23689	\$0.00000	\$0.32819	\$0.05953	\$0.62461	\$325.00	12,784,484	740	2,859	\$1,878.10	\$1,780.75	(\$97.35)	-5.18%	Block 1
32 Firm Trans	\$0.21651	\$0.00000	\$0.32819	\$0.05908	\$0.60378	\$0.00	12,605,537							Block 2
31C Firm Trans	\$0.20375	\$0.00000	\$0.00000	\$0.00540	\$0.20915	\$575.00	1,523,968	74	3,938	\$1,283.83	\$1,363.96	\$80.13	6.24%	Block 1
14	\$0.18630	\$0.00000	\$0.00000	\$0.00496	\$0.19126	\$0.00	1,972,618							Block 2
15	\$0.18529	\$0.00000	\$0.32819	\$0.05385	\$0.56733	\$325.00	4,299,679	217	5,380	\$2,821.03	\$2,728.35	(\$92.68)	-3.29%	Block 1
16	\$0.16744	\$0.00000	\$0.32819	\$0.05349	\$0.54912	\$0.00	9,710,862							Block 2
17	\$0.18195	\$0.00000	\$0.00000	\$0.00422	\$0.18617	\$575.00	91,578	5	6,059	\$1,536.63	\$1,630.43	\$93.80	6.10%	Block 1
18	\$0.16445	\$0.00000	\$0.00000	\$0.00384	\$0.16829	\$0.00	271,990							Block 2
19	\$0.11489	\$0.00000	\$0.32819	\$0.05337	\$0.49645	\$675.00	28,058,173	433	7,524	\$3,715.45	\$3,588.89	(\$126.56)	-3.41%	Block 1
20	\$0.09764	\$0.00000	\$0.32819	\$0.05285	\$0.47868	\$0.00	9,518,066							Block 2
21	\$0.06896	\$0.00000	\$0.32819	\$0.05199	\$0.44914	\$0.00	1,350,403							Block 3
22	\$0.04022	\$0.00000	\$0.32819	\$0.05113	\$0.41954	\$0.00	166,168							Block 4
23	\$0.01978	\$0.00000	\$0.32819	\$0.05036	\$0.39833	\$0.00	0							Block 5
24	\$0.00988	\$0.00000	\$0.32819	\$0.05003	\$0.38810	\$0.00	0							Block 6
25	\$0.10932	\$0.00000	\$0.32819	\$0.05252	\$0.49003	\$675.00	5,409,612	62	18,579	\$8,004.17	\$7,607.21	(\$396.96)	-4.96%	Block 1
26	\$0.09293	\$0.00000	\$0.32819	\$0.05215	\$0.47327	\$0.00	5,816,515							Block 2
27	\$0.06558	\$0.00000	\$0.32819	\$0.05155	\$0.44532	\$0.00	2,020,748							Block 3
28	\$0.03828	\$0.00000	\$0.32819	\$0.05095	\$0.41742	\$0.00	576,257							Block 4
29	\$0.01950	\$0.00000	\$0.32819	\$0.05059	\$0.39828	\$0.00	0							Block 5
30	\$0.00980	\$0.00000	\$0.32819	\$0.05015	\$0.38814	\$0.00	0							Block 6
31	\$0.10758	\$0.00000	\$0.00000	\$0.00241	\$0.10999	\$925.00	14,881,729	178	43,409	\$4,419.09	\$4,781.50	\$362.41	8.20%	Block 1
32	\$0.09142	\$0.00000	\$0.00000	\$0.00208	\$0.09350	\$0.00	16,126,373							Block 2
33	\$0.06456	\$0.00000	\$0.00000	\$0.00156	\$0.06612	\$0.00	10,000,748							Block 3
34	\$0.03766	\$0.00000	\$0.00000	\$0.00102	\$0.03868	\$0.00	20,036,765							Block 4
35	\$0.02151	\$0.00000	\$0.00000	\$0.00069	\$0.02220	\$0.00	25,892,025							Block 5
36	\$0.01079	\$0.00000	\$0.00000	\$0.00048	\$0.01127	\$0.00	5,784,825							Block 6
37	\$0.11023	\$0.00000	\$0.23726	\$0.05188	\$0.39937	\$675.00	5,114,441	58	33,806	\$14,353.67	\$13,229.13	(\$1,124.54)	-7.83%	Block 1
38	\$0.09370	\$0.00000	\$0.23726	\$0.05158	\$0.38254	\$0.00	6,268,233							Block 2
39	\$0.06614	\$0.00000	\$0.23726	\$0.05107	\$0.35447	\$0.00	3,312,192							Block 3
40	\$0.03859	\$0.00000	\$0.23726	\$0.05056	\$0.32641	\$0.00	6,448,719							Block 4
41	\$0.02204	\$0.00000	\$0.23726	\$0.05026	\$0.30956	\$0.00	2,385,488							Block 5
42	\$0.01009	\$0.00000	\$0.23726	\$0.04988	\$0.29723	\$0.00	0							Block 6
43	\$0.10986	\$0.00000	\$0.23726	\$0.05208	\$0.39920	\$675.00	6,003,909	68	33,849	\$14,364.20	\$13,240.04	(\$1,124.16)	-7.83%	Block 1
44	\$0.09340	\$0.00000	\$0.23726	\$0.05178	\$0.38244	\$0.00	7,358,360							Block 2
45	\$0.06593	\$0.00000	\$0.23726	\$0.05126	\$0.35445	\$0.00	3,888,225							Block 3
46	\$0.03846	\$0.00000	\$0.23726	\$0.05076	\$0.32648	\$0.00	7,570,236							Block 4
47	\$0.02197	\$0.00000	\$0.23726	\$0.05045	\$0.30968	\$0.00	2,800,356							Block 5
48	\$0.01005	\$0.00000	\$0.23726	\$0.05010	\$0.29741	\$0.00	0							Block 6
49	\$0.10595	\$0.00000	\$0.00000	\$0.00203	\$0.10798	\$925.00	7,385,146	85	193,105	\$9,223.21	\$9,873.89	\$650.68	7.05%	Block 1
50	\$0.09007	\$0.00000	\$0.00000	\$0.00175	\$0.09182	\$0.00	12,638,632							Block 2
51	\$0.06359	\$0.00000	\$0.00000	\$0.00131	\$0.06490	\$0.00	9,591,680							Block 3
52	\$0.03709	\$0.00000	\$0.00000	\$0.00086	\$0.03795	\$0.00	30,167,941							Block 4
53	\$0.02121	\$0.00000	\$0.00000	\$0.00059	\$0.02180	\$0.00	53,015,711							Block 5
54	\$0.01062	\$0.00000	\$0.00000	\$0.00041	\$0.01103	\$0.00	84,168,292							Block 6
55	\$0.00566	\$0.00000	\$0.00000	\$0.00012	\$0.00578	\$38.00	994,600,661	669,684						N/A

[1] Due to demand optionality for large customers, demand is not included in the billing rates and average bill for Schedules 31 and 32.