Natasha Siores Manager, Regulatory Compliance Tel: 503.721.2452 Fax: 503.721.2516 Email: natasha.siores@nwnatural.com



220 NW 2ND AVENUE PORTLAND, OR 97209

503.226.4211

www.nwnatural.com

April 12, 2019

NWN OPUC Advice No. 19-05

## 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: June 2019 Bill Adjustments—Schedule 185 Special Annual Interstate Storage and Transportation Credit; and Schedule 186 Special Annual Core Storage and Pipeline Capacity Optimization Credit

Northwest Natural Gas Company, dba NW Natural (NW Natural or Company), files herewith the following tariff sheets stated to become effective with service on and after **June 1, 2019**:

| Eighth Revision of Sheet 185-1 | Schedule 185 | Special Annual Interstate Storage and<br>Transportation Credit           |
|--------------------------------|--------------|--|
| Eighth Revision of Sheet 186-1 | Schedule 186 | Special Annual Core Storage and<br>Pipeline Capacity Optimization Credit |

### <u>Purpose</u>

The purpose of this filing is to revise Schedule 185 and Schedule 186, respectively, to reflect the per-therm credit used to calculate the lump sum amount to be applied to the bills of customers served under Rate Schedules 2 and 3, and under the Sales Service option of Schedules 31 and 32.

The lump sum June bill credit will be applied to customer bills commencing with the first billing cycle in June 2019 and ending with the last billing cycle in June 2019. The bill credit is calculated on a customer-specific basis according to the rate schedule applicable to the customer and the customer's actual billed gas usage between January 1, 2018 and December 31, 2018. In order to receive the bill credit, a customer must have an active gas service account at the time of the customer's June 2019 billing cycle.

### Schedule 185

The Schedule 185 credit represents the refund of the Oregon share of revenues NW Natural received for interstate storage and related transportation service activities under a Limited Jurisdiction Blanket Certificate granted under FERC Regulations, 18 C.F.R. § 294.224. The refund of \$3,466,908 (before revenue sensitive effects) is comprised of \$3,440,744 from revenues for 2018 activity, plus \$26,164 that is the residual remaining balance from the June 2018 credits.

Schedule 185 amounts are calculated on an equal percentage of margin basis.

Public Utility Commission of Oregon NWN OPUC Advice No. 19-05 April 12, 2019, page 2

The Schedule 185 credit will reduce June 2019 customer bills as follows:

- The average Schedule 2 Residential Customer that used about 590 therms in 2018 will see a bill credit of about \$4.31.
- The average Schedule 3 Commercial Customer that used about 2,862 therms in 2018 will see a bill credit of about \$14.35.
- The average Schedule 31 Commercial Firm Sales customer that used about 33,454 therms in 2018 will see a bill credit of about \$123.81.
- The average Schedule 32 Industrial Firm Sales customer that used about 227,862 therms in 2018 will see a bill credit of about \$150.16.

### Schedule 186

This filing also revises Schedule 186 to add the per-therm credit that will be applied to customer bills for the refund of the Oregon share of revenues received from the Company's core pipeline capacity optimization activities. The refund of \$12,787,219 (before revenue sensitive effects) is comprised of \$12,690,715 from revenues for 2018 activity, plus \$96,504 that is the residual remaining balance from the June 2018 credits.

The Schedule 186 credit applies across all sales-based rate schedules and is a credit of \$0.02036 per therm. The average June 2019 bill credit under Schedule 186 is as follows:

- Schedule 2 Residential \$12.02
- Schedule 3 Commercial \$58.27
- Schedule 31 Commercial Firm \$681.12
- Schedule 32 Industrial Firm Sales \$4,639.26
- Schedule 32 Industrial Interruptible Sales \$9,599.25

### **Combined Effects**

The combined effects of the Schedule 185 and Schedule 186 amounts is a refund of \$16,254,126 (before revenue sensitive effects), which is comprised of \$16,131,458 from revenues for 2018 activity, plus \$122,668 that is the residual remaining balance from the June 2018 credits.

The average bill effects of the Schedule 185 and Schedule 186 credits combined are as follows:

- The average Schedule 2 Residential customer will see a bill credit of about \$16.32.
- The average Schedule 3 Commercial customer will see a bill credit of about \$72.62.
- The average Schedule 31 Commercial Firm Sales customer will see a bill credit of about \$804.93.
- The average Schedule 32 Industrial Firm Sales customer will see a bill credit of about \$4,789.42.
- The average Schedule 32 Industrial interruptible Sales customer will see a bill credit of about \$9,599.25

In support of this filing, the Company incorporates by reference the Annual Report of Interstate and Intrastate Gas Storage and Optimization Activities filed with the Commission on March 29, 2019 (docket RG 32).

Public Utility Commission of Oregon NWN OPUC Advice No. 19-05 April 12, 2019, Page 3

The Company respectfully requests that the tariff sheets filed herein be approved to become effective with service on and after June 1, 2019.

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 <u>www.nwnatural.com</u>.

The Company waives paper service in this proceeding.

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 Fax: (503) 721-2516 Phone: (503) 226-4211, ext. 3589 eFiling@nwnatural.com

Sincerely,

NW NATURAL

/s/ Natasha Siores

Natasha Siores Manager, Regulatory Compliance

Attachments

P.U.C. Or. 25

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

#### PURPOSE:

To credit customers served under the below-listed Rate Schedules for the Oregon share of revenues received by NW Natural for (a) interstate storage and related transportation service provided under a Limited-Jurisdiction Blanket Certificate from FERC granted under FERC Regulations, 18 C.F.R. § 284.224 (hereafter referred to as § 284.224 service), (b) core storage optimization activities; and (c) intrastate storage activities under **Rate Schedule 80** and **Rate Schedule 91**.

#### APPLICABLE:

The credit under this Schedule 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: **Schedule 2**; **Schedule 3**, and; **Schedules 31** and **32** – Firm Sales only.

#### <u>CREDIT</u>: Effective Billing Cycle: June 2019

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, 2018 through December 31, 2018:

| Rate<br>Schedule/Class | Block   | Temporary<br>Adjustments |  |        | Block   | Temporary<br>Adjustmnet |
|------------------------|---------|--------------------------|--|--------|---------|-------------------------|
| 2                      |         | (\$0.00730)              |  |        |         |                         |
| 03 CSF                 |         | (\$0.00501)              |  |        |         |                         |
| 03 ISF                 |         | (\$0.00428)              |  |        |         |                         |
|                        |         |                          |  |        |         |                         |
| 31 CSF                 | Block 1 | (\$0.00403)              |  | 31 ISF | Block 1 | (\$0.00283)             |
|                        | Block 2 | (\$0.00368)              |  |        | Block 2 | (\$0.00256)             |
|                        |         |                          |  |        |         |                         |
| 32 CSF                 | Block 1 | (\$0.00240)              |  | 32 ISF | Block 1 | (\$0.00168)             |
|                        | Block 2 | (\$0.00204)              |  |        | Block 2 | (\$0.00142)             |
|                        | Block 3 | (\$0.00144)              |  |        | Block 3 | (\$0.00101)             |
|                        | Block 4 | (\$0.00084)              |  |        | Block 4 | (\$0.00059)             |
|                        | Block 5 | (\$0.00048)              |  |        | Block 5 | (\$0.00034)             |
|                        | Block 6 | (\$0.00024)              |  |        | Block 6 | (\$0.00017)             |

(C)

(T)

(T)

(C)

(continue to Sheet 185-2)

Issued April 12, 2019 NWN OPUC Advice No. 19-05 Effective with service on and after June 1, 2019

P.U.C. Or. 25

# 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 |

#### <u>CREDIT</u>: Effective Billing Cycle: June 2019

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, 2018 through December 31, 2018:

(\$0.02036)

#### **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.
- 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 April 12, 2019 NWN OPUC Advice No. 19-05 Effective with service on and after June 1, 2019

(T)

(T)

(C)

# **EXHIBIT A**

# BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

# NW NATURAL SUPPORTING MATERIALS

NWN OPUC Advice No. 19-05 / ADV \_\_\_\_\_

June 2019 Bill Adjustments

Schedule 185 and Schedule 186

April 12, 2019

# Exhibit A – Table of Contents Supporting Materials

# NWN OPUC Advice No. 19-05 / ADV \_\_\_\_\_

June 2019 Bill Adjustments Schedule 185 and Schedule 186

| Title   | Page |
|---|------|
| Oregon Schedule 185 and Schedule 186 Credit for 2018 Storage Activity–      |      |
| Effects on Average June Bill by Rate Schedule                               | 1    |
| Oregon Schedule 185 and Schedule 186 Credit for 2018 Storage Activity–      |      |
| Calculation of Increments Allocated on the Equal Percentage of Margin Basis | 2    |
| Oregon Schedule 185 and Schedule 186 Credit for 2018 Storage Activity –     |      |
| Calculation of Increments Allocated on the Equal Cent Per Therm Basis       | 3    |

Exhibit A - Supporting Materials NWN OPUC Advice 19-05 / ADV page 1 of 3

NW Natural

Rates & Regulatory Affairs Oregon Schedule 185 and Schedule 186 Credit for 2018 Storage Activity Effects on Average June Bill by Rate Schedule ALL VOLUMES IN THERMS

| OLUMES IN THERMS   |                    |                            |                     | Γ               | Schedule                   | e 185                   | Schedu                     | le 186                  | Comb                       | ined                    |
|--|--------------------|----------------------------|---------------------|-----------------|----------------------------|-------------------------|----------------------------|-------------------------|----------------------------|-------------------------|
|  |                    | 2018                       | 2018                | 2018<br>Average | Proposed                   | Proposed                | Proposed                   | Proposed                | Proposed                   | Proposed                |
|  | Therms in<br>Block | Active Customer<br>Volumes | Active<br>Customers | Annual          | Sch. 185<br>Rates          | Sch. 185<br>Bill Credit | Sch. 186<br>Rates          | Sch. 186<br>Bill Credit | Combined<br>Rates          | Combined<br>Bill Credit |
| Schedule Block   |                    | В                          | с                   | D               | E                          | F = E*D                 | G                          | H = G*D                 | I = E + G                  | J = I*D                 |
| 2R   | N/A                | 345,287,154                | 585,021             | 590.2           | (\$0.00730)                | (\$4.31)                | (\$0.02036)                | (\$12.02)               | (\$0.02766)                | (\$16.32                |
| 3C Firm Sales  | N/A                | 158,280,085                | 55,304              | 2,862.0         | (\$0.00501)                | (\$14.35)               | (\$0.02036)                | (\$58.27)               | (\$0.02537)                | (\$72.62                |
| 31 Firm Sales  | N/A                | 4,648,752                  | 343                 | 13,553.2        | (\$0.00428)                | (\$58.04)               | (\$0.02036)                | (\$275.94)              | (\$0.02464)                | (\$333.99               |
| 27 Dry Out   |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| 31C Firm Sales Block   |                    | 12,919,987                 | 698                 | 33,453.9        | (\$0.00403)                |                         | (\$0.02036)                |                         | (\$0.02439)                |                         |
| Block<br>Tota  |                    | 10,430,831                 |                     |                 | (\$0.00368)                | (\$123.81)              | (\$0.02036)                | (\$681.12)              | (\$0.02404)                | (\$804.93               |
| 31C Firm Trans Block   |                    |                            |                     |                 |                            | (\$123.01)              |                            | (\$001.12)              |                            | (\$804.73               |
| Block  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Tota   | 1                  |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| 311 Firm Sales Block   | 1 2,000            | 4,329,171                  | 211                 | 62,263.2        | (\$0.00283)                |                         | (\$0.02036)                |                         | (\$0.02319)                |                         |
| Block  |                    | 8,808,362                  |                     |                 | (\$0.00256)                |                         | (\$0.02036)                |                         | (\$0.02292)                |                         |
| Tota   |                    |                            |                     |                 |                            | (\$160.00)              |                            | (\$1,267.68)            |                            | (\$1,427.67             |
| 311 Firm Trans Block<br>Block  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Tota   |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| 32C Firm Sales Block   |                    | 29,665,204                 | 465                 | 83,749.6        | (\$0.00240)                |                         | (\$0.02036)                |                         | (\$0.02276)                |                         |
| Block  |                    | 8,249,118                  |                     |                 | (\$0.00204)                |                         | (\$0.02036)                |                         | (\$0.02240)                |                         |
| Block  |                    | 946,694                    |                     |                 | (\$0.00144)                |                         | (\$0.02036)                |                         | (\$0.02180)                |                         |
| Block  | 4 100,000          | 82,542                     |                     |                 | (\$0.00084)                |                         | (\$0.02036)                |                         | (\$0.02120)                |                         |
| Block  |                    | 0                          |                     |                 | (\$0.00048)                |                         | (\$0.02036)                |                         | (\$0.02084)                |                         |
| Block  |                    | 0                          |                     |                 | (\$0.00024)                |                         | (\$0.02036)                |                         | (\$0.02060)                |                         |
| Tota   |                    | E 215 201                  | 50                  | 227.0/1 /       | (#0.001(0)                 | (\$122.01)              | (********                  | (\$1,705.14)            | (*0.00004)                 | (\$1,827.16             |
| 321 Firm Sales Block<br>Block  |                    | 5,315,291<br>5,532,089     | 59                  | 227,861.6       | (\$0.00168)<br>(\$0.00142) |                         | (\$0.02036)<br>(\$0.02036) |                         | (\$0.02204)<br>(\$0.02178) |                         |
| Block  |                    | 1,842,851                  |                     |                 | (\$0.00142)                |                         | (\$0.02036)                |                         | (\$0.02178)                |                         |
| Block  |                    | 753,600                    |                     |                 | (\$0.00059)                |                         | (\$0.02036)                |                         | (\$0.02095)                |                         |
| Block  |                    | 0                          |                     |                 | (\$0.00034)                |                         | (\$0.02036)                |                         | (\$0.02070)                |                         |
| Block  | 6 all additional   | 0                          |                     |                 | (\$0.00017)                |                         | (\$0.02036)                |                         | (\$0.02053)                |                         |
| Tota   |                    |                            |                     |                 |                            | (\$150.16)              |                            | (\$4,639.26)            |                            | (\$4,789.42             |
| 32 Firm Trans Block  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block  | 6                  |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Tota   |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| 32C Interr Sales Block 1   | 10,000             | 5,374,333                  | 59                  | 361,664.0       | \$0.00000                  |                         | (\$0.02036)                |                         | (\$0.02036)                |                         |
| Block 2  | 20,000             | 7,355,804                  |                     |                 | \$0.00000                  |                         | (\$0.02036)                |                         | (\$0.02036)                |                         |
| Block 3<br>Block 4   | 20,000<br>100,000  | 3,820,315<br>4,769,204     |                     |                 | \$0.00000<br>\$0.00000     |                         | (\$0.02036)<br>(\$0.02036) |                         | (\$0.02036)<br>(\$0.02036) |                         |
| Block 5  | 600,000            | 18,520                     |                     |                 | \$0.00000                  |                         | (\$0.02036)                |                         | (\$0.02036)                |                         |
| Block 6  | all additional     |                            |                     |                 | \$0.00000                  |                         | (\$0.02036)                |                         | (\$0.02036)                |                         |
| Total  |                    |                            |                     |                 |                            | \$0.00                  |                            | (\$7,363.48)            |                            | (\$7,363.48             |
| 321 Interr Sales Block 1   | 10,000             | 6,288,400                  | 59                  | 471,476.0       | \$0.00000                  |                         | (\$0.02036)                |                         | (\$0.02036)                |                         |
| Block 2  | 20,000             | 7,754,327                  |                     |                 | \$0.00000                  |                         | (\$0.02036)                |                         | (\$0.02036)                |                         |
| Block 3  |                    | 3,753,428                  |                     |                 | \$0.00000                  |                         | (\$0.02036)                |                         | (\$0.02036)                |                         |
| Block 4<br>Block 5   | 100,000<br>600,000 | 7,924,824<br>2,096,107     |                     |                 | \$0.00000<br>\$0.00000     |                         | (\$0.02036)<br>(\$0.02036) |                         | (\$0.02036)<br>(\$0.02036) |                         |
| Block 5<br>Block 6   | all additional     |                            |                     |                 | \$0.00000                  |                         | (\$0.02036) (\$0.02036)    |                         | (\$0.02036) (\$0.02036)    |                         |
| Total  | an additional      | Ŭ                          |                     |                 | \$5.00000                  | \$0.00                  | (\$0.02000)                | (\$9,599.25)            | (\$0.02000)                | (\$9,599.25             |
|  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| 32 Interr Trans Block 1  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| 32 Intern Frans Block 1<br>Block 2   |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block 2<br>Block 3   |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block 2<br>Block 3<br>Block 4  |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block 2<br>Block 3<br>Block 4<br>Block 5                                       |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block 2<br>Block 3<br>Block 4<br>Block 5<br>Block 6                            |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block 2<br>Block 3<br>Block 4<br>Block 4<br>Block 5<br>Block 6<br><b>Total</b> |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |
| Block 2<br>Block 3<br>Block 4<br>Block 5<br>Block 6                            |                    |                            |                     |                 |                            |                         |                            |                         |                            |                         |

NW Natural Rates & Regulatory Affairs Oregon Schedule 185 and Schedule 186 Credit for 2018 Storage Activity Calculation of Increments Allocated on the EQUAL PERCENTAGE OF MARGIN BASIS ALL VOLUMES IN THERMS

|                  |                    |                      |                        | 2017-2018              | PGA Rates              |                        |                            |            |              |                              |                               | Schedule 185 Cred |                              |                        |
|------------------|--------------------|----------------------|------------------------|------------------------|------------------------|------------------------|----------------------------|------------|--------------|------------------------------|-------------------------------|-------------------|------------------------------|------------------------|
|                  |                    | 2018                 |                        |                        |                        |                        |                            |            | 2018         |                              | Proposed Amount:              |                   | 6,908) Temporary Increment   |                        |
|                  |                    | Active Customer      | Billing                | WACOG &                | Temporary              | MARGIN                 | Volumetric                 | Customer   | Active       | Total                        | Revenue Sensitive Multiplier: |                   | rev sensitive factor is buil |                        |
|                  | -                  | Volumes              | Rate                   | Demand Rates*          | Increments             | Rate                   | Margin                     | Charge     | Customers    | Margin                       | Amount to Amortize:           |                   | All sales 2, 3 and           |                        |
| Schedule         | Disale             | А                    | в                      | с                      | D                      | E=B-C-D                | F = E * A                  | G          | н            |                              |                               | Multiplier        | Allocation to RS<br>K        | Increment              |
| 2R               | Block              | A<br>345,287,154     | в<br>\$0.83850         | \$0.41107              | (\$0.01727)            | E=B-C-D<br>\$0.44470   | F = E * A<br>\$153,549,198 | \$8.00     | н<br>585,021 | I = F + G*H<br>\$209,711,214 |                               | <b>J</b><br>1.0   | (\$2,519,910)                | (\$0.0073              |
| 3C Firm Sales    |                    | 158,280,085          | \$0.83850              | \$0.41107              | \$0.03136              | \$0.35442              | \$56,097,628               | \$15.00    | 55,304       | \$66,052,348                 |                               | 1.0               | (\$793,691)                  | (\$0.0073)             |
| 31 Firm Sales    |                    | 4,648,752            | \$0.77033              | \$0.41107              | \$0.01614              | \$0.34312              | \$1,595,080                | \$15.00    | 343          | \$1,656,820                  |                               | 1.0               | (\$19,909)                   | (\$0.0042              |
| 27 Dry Out       |                    | 4,040,732            | \$0.77033              | \$0.41107              | \$0.01014              | \$0.3431Z              | \$1,373,000                | ψ13.00     | 545          | \$1,030,020                  |                               | 1.0               | (\$17,707)                   | (\$0.0042              |
| 31C Firm Sales   | Block 1            | 12,919,987           | \$0.54893              | \$0.29186              | \$0.04321              | \$0.21386              | \$4,801,879                | \$325.00   | 698          | \$7,524,079                  |                               | 1.0               | (\$90,410)                   | (\$0.0040)             |
|                  | Block 2            | 10,430,831           | \$0.52996              | \$0.29186              | \$0.04264              | \$0.19546              |                            |            |              | ***                          |                               | 1.0               | (*********                   | (\$0.0036              |
| 31C Firm Trans   | Block 1            | · · ·                |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 2            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
| 311 Firm Sales   | Block 1            | 4,329,171            | \$0.47445              | \$0.29186              | \$0.01371              | \$0.16888              | \$2,075,355                | \$325.00   | 211          | \$2,898,255                  |                               | 1.0               | (\$34,826)                   | (\$0.0028              |
|                  | Block 2            | 8,808,362            | \$0.45773              | \$0.29186              | \$0.01326              | \$0.15261              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0025              |
| 311 Firm Trans   | Block 1            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 2            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
| 32C Firm Sales   | Block 1            | 29,665,204           | \$0.40410              | \$0.29186              | \$0.01347              | \$0.09877              | \$3,681,438                | \$675.00   | 465          | \$7,447,938                  |                               | 1.0               | (\$89,495)                   | (\$0.0024              |
|                  | Block 2            | 8,249,118            | \$0.38859              | \$0.29186              | \$0.01279              | \$0.08394              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0020              |
|                  | Block 3            | 946,694              | \$0.36280              | \$0.29186              | \$0.01166              | \$0.05928              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0014              |
|                  | Block 4            | 82,542               | \$0.33696              | \$0.29186              | \$0.01052              | \$0.03458              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0008              |
|                  | Block 5            |                      | \$0.32119              | \$0.29186              | \$0.00955              | \$0.01978              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0004              |
| 201 E: 0 I       | Block 6            |                      | \$0.31083              | \$0.29186              | \$0.00909              | \$0.00988              |                            | + ( == 0.0 | 50           | ** === ===                   |                               | 1.0               | (**** ****)                  | (\$0.0002              |
| 321 Firm Sales   | Block 1            | 5,315,291            | \$0.40145              | \$0.29186              | \$0.01206              | \$0.09753              | \$1,110,627                | \$675.00   | 59           | \$1,588,527                  |                               | 1.0               | (\$19,088)                   | (\$0.0016              |
|                  | Block 2            | 5,532,089            | \$0.38637              | \$0.29186              | \$0.01160              | \$0.08291              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0014              |
|                  | Block 3<br>Block 4 | 1,842,851<br>753,600 | \$0.36119<br>\$0.33605 | \$0.29186<br>\$0.29186 | \$0.01082<br>\$0.01004 | \$0.05851<br>\$0.03415 |                            |            |              |                              |                               | 1.0<br>1.0        |                              | (\$0.0010<br>(\$0.0005 |
|                  | Block 4<br>Block 5 | /53,600              | \$0.33005              | \$0.29186              | \$0.00930              | \$0.03415              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0003              |
|                  | Block 6            |                      | \$0.32000              | \$0.29186              | \$0.00930              | \$0.00980              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0003              |
| 32 Firm Trans    | Block 0            |                      | \$0.51005              | \$0.27100              | \$0.00077              | \$0.00700              |                            |            |              |                              |                               | 1.0               |                              | (\$0.0001              |
| 52 mm mans       | Block 2            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 3            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 4            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 5            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 6            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
| 32C Interr Sales | Block 1            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 2            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 3            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 4            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 5            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 6            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
| 321 Interr Sales | Block 1            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 2            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 3            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 4            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 5            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
| 22 Interr Trens  | Block 6            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
| 32 Interr Trans  | Block 1<br>Block 2 |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 2<br>Block 3 |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 3<br>Block 4 |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 4<br>Block 5 |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  | Block 6            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
| 33               | DIOOK U            |                      |                        |                        |                        |                        |                            |            |              |                              |                               |                   |                              |                        |
|                  |                    |                      |                        |                        | -                      |                        |                            |            |              |                              |                               |                   | -                            |                        |
| TOTALS           |                    | 597,091,732          |                        |                        |                        |                        | \$222,911,205              |            |              | \$296,879,181                |                               | \$296,879,181     | (\$3,567,328)                |                        |

Note: Allocation to rate schedules or blocks with zero volumes is calculated on an overall margin percentage change basis.
 \* Since Billing Rates for all schedules above 31 do not include demand, column c for those schedules is WACOG only

#### NW Natural Rates & Regulatory Affairs Oregon Schedule 185 and Schedule 186 Credit for 2018 Storage Activity Calculation of Increments Allocated on the EQUAL CENT PER THERM BASIS ALL VOLUMES IN THERMS

| 9     31       10     2       11     310       12     310       13     310       14     15       16     17       18     31                                    | Schedule<br>2R<br>2 Firm Sales<br>1 Firm Sales<br>27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>1 Firm Sales<br>1 Firm Trans | Block 1<br>Block 1<br>Block 2<br>Block 1<br>Block 2<br>Block 1 | 2018<br>Active Customer<br>Volumes<br>A<br>345,287,154<br>158,280,085<br>4,648,752<br>12,919,987<br>10,430,831 | Proposed Amount:<br>Revenue Sensitive Multiplier:<br>Amount to Amortize: |   | Temporary Increment<br>add revenue sensitive f<br>o all sales<br>Volumes<br>C<br>345,287,154<br>158,280,085<br>4,648,752 | Increment<br>D<br>(\$0.02036)<br>(\$0.02036) |
|---|--|--|--|--|---|--|--|
| $\begin{array}{c} 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 30 \\ 9 \\ 31 \\ 10 \\ 2 \\ 11 \\ 310 \\ 12 \\ 13 \\ 310 \\ 14 \\ 15 \\ 31 \\ 16 \\ 17 \\ 31 \\ 18 \\ \end{array}$ | 2R<br>C Firm Sales<br>I Firm Sales<br>27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>I Firm Sales                             | Block 1<br>Block 2<br>Block 1<br>Block 2                       | Volumes<br>A<br>345,287,154<br>158,280,085<br>4,648,752<br>12,919,987  |  | (\$13,157,605) t<br>Multiplier<br>B<br>1.0<br>1.0 | o all sales<br>Volumes<br>C<br>345,287,154<br>158,280,085  | Increment<br>D<br>(\$0.02036)<br>(\$0.02036) |
| $\begin{array}{c} 5 \\ 6 \\ 7 \\ 8 \\ 30 \\ 9 \\ 31 \\ 10 \\ 2 \\ 11 \\ 310 \\ 12 \\ 13 \\ 310 \\ 14 \\ 15 \\ 31 \\ 16 \\ 17 \\ 31 \\ 18 \\ \end{array}$      | 2R<br>C Firm Sales<br>I Firm Sales<br>27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>I Firm Sales                             | Block 1<br>Block 2<br>Block 1<br>Block 2                       | A<br>345,287,154<br>158,280,085<br>4,648,752<br>12,919,987   | Amount to Amortize:  | Multiplier<br>B<br>1.0<br>1.0                     | Volumes<br>C<br>345,287,154<br>158,280,085   | <b>D</b><br>(\$0.02036)<br>(\$0.02036)       |
| $\begin{array}{c} 6 \\ 7 \\ 8 \\ 9 \\ 31 \\ 10 \\ 2 \\ 11 \\ 310 \\ 12 \\ 13 \\ 310 \\ 14 \\ 15 \\ 31 \\ 16 \\ 17 \\ 31 \\ 18 \\ \end{array}$                 | 2R<br>C Firm Sales<br>I Firm Sales<br>27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>I Firm Sales                             | Block 1<br>Block 2<br>Block 1<br>Block 2                       | 345,287,154<br>158,280,085<br>4,648,752<br>12,919,987  |  | B<br>1.0<br>1.0                                   | C<br>345,287,154<br>158,280,085  | <b>D</b><br>(\$0.02036)<br>(\$0.02036)       |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$   | 2R<br>C Firm Sales<br>I Firm Sales<br>27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>I Firm Sales                             | Block 1<br>Block 2<br>Block 1<br>Block 2                       | 345,287,154<br>158,280,085<br>4,648,752<br>12,919,987  |  | 1.0<br>1.0  | 345,287,154<br>158,280,085   | (\$0.02036)<br>(\$0.02036)                   |
| $ \begin{array}{c} 8 & 30 \\ 9 & 31 \\ 10 & 2 \\ 11 & 310 \\ 12 \\ 13 & 310 \\ 14 \\ 15 & 31 \\ 16 \\ 17 & 31 \\ 18 \\ \end{array} $                          | C Firm Sales<br>I Firm Sales<br>27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>I Firm Sales                                   | Block 2<br>Block 1<br>Block 2                                  | 158,280,085<br>4,648,752<br>12,919,987   |  | 1.0   | 158,280,085  | (\$0.02036)                                  |
| 9     31       10     2       11     310       12     310       13     310       14     15       16     17       18     31                                    | I Firm Sales<br>27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>I Firm Sales   | Block 2<br>Block 1<br>Block 2                                  | 4,648,752  |  | 1   |  |  |
| 10     2       11     310       12     310       13     310       14     15       15     31       16     17       18     31                                   | 27 Dry Out<br>C Firm Sales<br>C Firm Trans<br>I Firm Sales   | Block 2<br>Block 1<br>Block 2                                  | 12,919,987   |  | 1.0   | 1 610 750  |  |
| 11     310       12     310       13     310       14     31       15     31       16     31       17     31       18     31                                  | C Firm Sales<br>C Firm Trans<br>I Firm Sales   | Block 2<br>Block 1<br>Block 2                                  |  |  |   | 4,040,/52  | (\$0.02036)                                  |
| 12       13     310       14     15       15     31       16     17       18     18   | C Firm Trans<br>I Firm Sales   | Block 2<br>Block 1<br>Block 2                                  |  |  |   |  |  |
| 13     310       14   | I Firm Sales   | Block 1<br>Block 2   | 10,430,831   |  | 1.0   | 12,919,987   | (\$0.02036)                                  |
| 14       15     31       16   | I Firm Sales   | Block 2  |  |  | 1.0   | 10,430,831   | (\$0.02036)                                  |
| 15 31<br>16<br>17 31<br>18  |  |  |  |  |   |  |  |
| 16<br>17 31<br>18   |  | DIOCK  | 4,329,171  |  | 1.0   | 4,329,171  | (\$0.02036)                                  |
| 17 31<br>18   | I Firm Trans   | Block 2  | 8,808,362  |  | 1.0   | 8,808,362  | (\$0.02036)                                  |
| 18  | i i ii ii ii ui ui u   | Block 1  | 0,000,002  |  | 1.0   | 0,000,302  | (\$0.02030)                                  |
|   |  | Block 2  |  |  |   |  |  |
| 19 32   | C Firm Sales   | Block 1  | 29,665,204   |  | 1.0   | 29,665,204   | (\$0.02036)                                  |
| 20  |  | Block 2  | 8,249,118  |  | 1.0   | 8,249,118  | (\$0.02036)                                  |
| 21  |  | Block 3  | 946,694  |  | 1.0   | 946,694  | (\$0.02036)                                  |
| 22  |  | Block 4  | 82,542   |  | 1.0   | 82,542   | (\$0.02036)                                  |
| 23  |  | Block 5  | 0  |  | 1.0   | 0  | (\$0.02036)                                  |
| 24  |  | Block 6  | 0  |  | 1.0   | 0  | (\$0.02036)                                  |
| 25 32   | I Firm Sales   | Block 1  | 5,315,291  |  | 1.0   | 5,315,291  | (\$0.02036)                                  |
| 26  |  | Block 2  | 5,532,089  |  | 1.0   | 5,532,089  | (\$0.02036)                                  |
| 27  |  | Block 3  | 1,842,851  |  | 1.0   | 1,842,851  | (\$0.02036)                                  |
| 28  |  | Block 4  | 753,600  |  | 1.0   | 753,600  | (\$0.02036)                                  |
| 29  |  | Block 5  | 0  |  | 1.0   | 0  | (\$0.02036)                                  |
| 30  |  | Block 6  | 0  |  | 1.0   | 0  | (\$0.02036)                                  |
|   | 2 Firm Trans   | Block 1  |  |  |   |  |  |
| 32  |  | Block 2  |  |  |   |  |  |
| 33  |  | Block 3  |  |  |   |  |  |
| 34  |  | Block 4  |  |  |   |  |  |
| 35  |  | Block 5  |  |  |   |  |  |
| 36  |  | Block 6  |  |  |   |  |  |
|   | C Interr Sales   | Block 1  | 5,374,333  |  | 1.0   | 5,374,333  | (\$0.02036)                                  |
| 38  |  | Block 2  | 7,355,804  |  | 1.0   | 7,355,804  | (\$0.02036)                                  |
| 39  |  | Block 3  | 3,820,315  |  | 1.0   | 3,820,315  | (\$0.02036)                                  |
| 40  |  | Block 4  | 4,769,204  |  | 1.0   | 4,769,204  | (\$0.02036)                                  |
| 41  |  | Block 5  | 18,520   |  | 1.0   | 18,520   | (\$0.02036)                                  |
| 42  | Lintorr Color  | Block 6  | 0  |  | 1.0   | 0  | (\$0.02036)                                  |
|   | I Interr Sales   | Block 1  | 6,288,400  |  | 1.0   | 6,288,400  | (\$0.02036)                                  |
| 44<br>45  |  | Block 2  | 7,754,327  |  | 1.0   | 7,754,327  | (\$0.02036)                                  |
| 45<br>46  |  | Block 3  | 3,753,428  |  | 1.0   | 3,753,428  | (\$0.02036)                                  |
| 46<br>47  |  | Block 4<br>Block 5   | 7,924,824<br>2,096,107   |  | 1.0<br>1.0  | 7,924,824<br>2,096,107   | (\$0.02036)<br>(\$0.02036)                   |
| 47<br>48  |  |  | 2,098,107  |  | 1.0   | 2,098,107  |  |
|   | Interr Trans   | Block 6<br>Block 1   | 0  |  | 1.0   | 0  | (\$0.02036)                                  |
| 49 JZ<br>50   | interi frans   | Block 2  |  |  |   |  |  |
| 50  |  | Block 2<br>Block 3   |  |  |   |  |  |
| 52  |  | Block 4  |  |  |   |  |  |
| 53  |  | Block 5  |  |  |   |  |  |
| 54  |  | Block 6  |  |  |   |  |  |
| 55  | 33   | 2.001.0  |  |  |   |  |  |
| 56  |  |  |  |  |   |  |  |
| 57  | TOTALS   |  | 646,246,994  |  |   | 646,246,994  | (\$0.02036)                                  |