



e-FILING REPORT COVER SHEET

COMPANY NAME: NW Natural

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes If yes, submit a redacted public version (or a cover letter) by email. Submit the confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order.

Select report type: RE (Electric) RG (Gas) RW (Water) RT (Telecommunications)
 RO (Other, for example, industry safety information)

Did you previously file a similar report? No Yes, report docket number: RG 40

Report is required by: OAR 860-022-0070

Statute

Order

Note: A one-time submission required by an order is a compliance filing and not a report (file compliance in the applicable docket)

Other

(For example, federal regulations, or requested by Staff)

Is this report associated with a specific docket/case? No Yes, docket number: RG 40

List Key Words for this report. We use these to improve search results.

Earning Review for the Twelve Months Ended December 31, 2017, Annual Results of Operations Report, RG 40

Send the completed Cover Sheet and the Report in an email addressed to PUC.FilingCenter@state.or.us

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VIA ELECTRONIC FILING

May 1, 2018

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

RE: RG 40: NW Natural's Earnings Review without Workpapers for the Twelve Months Ended December 31, 2017

Pursuant to OAR 860-022-0070, Northwest Natural Gas Company, dba NW Natural ("NW Natural" or "Company"), files herewith its Earnings Review without workpapers for the twelve months ended December 31, 2017. Per order No. 15-049, please see the second page of the earnings review that incorporates the Asset Management Agreement Optimization (AMA) revenues. NW Natural's Earnings Review return on equity results are as follows:

- **Traditional Review: 8.998%**
- **Traditional Including AMA: 9.259%**

Please feel free to call if you have any questions.

Sincerely,

/s/ Kyle Walker, CPA

Kyle Walker, CPA
Rates Analyst



REPORT: RG 40

ANNUAL EARNINGS REVIEW
WITHOUT WORKPAPERS

(For the twelve months ended December 31, 2017)

OREGON EARNINGS TEST REVIEW

Line No.	Test Year	TYPE I	Results	Gas Reserves	Results Excl.	TYPE II	Results	
	Results	Adjustments	after Type I	Adjustment ⁽¹⁾	Gas Reserves ⁽¹⁾	Adjustments	after Type II	
	(a)	(b)	(c)	(d)	(e)	(f)	(g) = (c) + (f)	
<u>Operating Revenues</u>								
1	Sale of Gas	\$671,195	(\$18,268)	\$652,927		\$652,927	\$0	\$652,927
2	WARM Revenues	(16,870)	16,870	0		0	0	0
3	Revenue & Technical Adjustments	(6,188)	0	(6,188)		(6,188)	0	(6,188)
4	Decoupling Adjustments	8,638	(8,638)	0		0	0	0
5	Transportation	17,987	0	17,987		17,987	0	17,987
6	Miscellaneous Revenues	3,609	0	3,609		3,609	0	3,609
7	Total Operating Revenues	678,371	(10,035)	668,336	0	668,336	0	668,336
<u>Operating Revenue Deductions</u>								
8	Gas Purchased	295,366	(8,085)	287,282	6,617	293,899	0	287,282
9	Uncollectible Accrual for Gas Sales	771	(19)	752		752	0	752
10	Other Operating & Maintenance Expenses	146,326	(4,035)	142,291		142,291	0	142,291
11	Total Operating & Maintenance Exp.	442,463	(12,138)	430,325	6,617	436,942	0	430,325
12	Federal Income Tax	30,467	1,188	31,655	(1,471)	30,184	0	31,655
13	State Excise	7,231	280	7,511	0	7,511	0	7,511
14	Property Taxes	20,386	(268)	20,118		20,118	0	20,118
15	Other Taxes	24,016	(38)	23,978		23,978	0	23,978
16	Depreciation & Amortization	71,062	0	71,062		71,062	0	71,062
17	Total Operating Revenue Deductions	595,626	(10,976)	584,650	5,146	589,796	0	584,650
18	Net Operating Revenues	\$82,745	\$941	\$83,686	(\$5,146)	\$78,540	\$0	\$83,686
<u>Average Rate Base</u>								
19	Utility Plant in Service	\$2,766,558	(\$1,312)	\$2,765,246	(187,536)	\$2,577,709	\$0	\$2,765,246
20	Accumulated Depreciation	(1,227,221)	0	(1,227,221)	79,506	(1,147,715)	0	(1,227,221)
21	Net Utility Plant	1,539,337	(1,312)	1,538,025	(108,031)	1,429,994	0	1,538,025
22	Aid in Advance of Construction	(2,852)	0	(2,852)		(2,852)	0	(2,852)
23	Customer Deposits	(4,446)	0	(4,446)		(4,446)	0	(4,446)
24	Materials & Supplies	61,966	0	61,966		61,966	0	61,966
25	Leasehold Improvements	336	0	336		336	0	336
26	Accumulated Deferred Income Taxes	(431,266)	0	(431,266)	31,018	(400,248)	0	(431,266)
27	Total Rate Base	\$1,163,075	(\$1,312)	\$1,161,763	(\$77,013)	\$1,084,750	\$0	\$1,161,763
28	Rate of Return	7.110%		7.200%	6.680%	7.240%		7.200%
29	Return on Common Equity	8.817%		8.998%	7.953%	9.078%		8.998%

Notes: ⁽¹⁾Columns (d) and (e) added in accordance with Order No. 11-176 and 15-297 pertaining to Gas Reserves.

NW Natural
2017 Oregon Earnings Review
12 Months Ended December 31, 2017
(\$'000's)

Line No.	OREGON EARNINGS TEST REVIEW						
	Test Year	TYPE I	Results	TYPE II	Results	Results	
	Results	Adjustments	after Type I	Adjustments	after Type II	AMA	after AMA
	(a)	(b)	(c)	(f)	(g) = (c) + (f)	(d)	(e)
	<u>Operating Revenues</u>						
1	Sale of Gas	\$671,195	(\$18,268)	\$652,927	\$0	\$652,927	\$652,927
2	WARM Revenues	(16,870)	16,870	0	0	0	0
3	Revenue & Technical Adjustments	(6,188)	0	(6,188)	0	(6,188)	(6,188)
4	Decoupling Adjustments	8,638	(8,638)	0	0	0	0
5	Transportation	17,987	0	17,987	0	17,987	17,987
6	Miscellaneous Revenues	3,609	0	3,609	0	3,609	2,442
7	Total Operating Revenues	678,371	(10,035)	668,336	0	668,336	2,442
	<u>Operating Revenue Deductions</u>						
8	Gas Purchased	295,366	(8,085)	287,282	0	287,282	287,282
9	Uncollectible Accrual for Gas Sales	771	(19)	752	0	752	752
10	Other Operating & Maintenance Expenses	146,326	(4,035)	142,291	0	142,291	142,291
11	Total Operating & Maintenance Exp.	442,463	(12,138)	430,325	0	430,325	430,325
12	Federal Income Tax	30,467	1,188	31,655	0	31,655	790
13	State Excise	7,231	280	7,511	0	7,511	186
14	Property Taxes	20,386	(268)	20,118	0	20,118	20,118
15	Other Taxes	24,016	(38)	23,978	0	23,978	23,978
16	Depreciation & Amortization	71,062	0	71,062	0	71,062	71,062
17	Total Operating Revenue Deductions	595,626	(10,976)	584,650	0	584,650	975
18	Net Operating Revenues	\$82,745	\$941	\$83,686	\$0	\$83,686	\$1,467
	<u>Average Rate Base</u>						
19	Utility Plant in Service	\$2,766,558	(\$1,312)	\$2,765,246	\$0	\$2,765,246	\$2,765,246
20	Accumulated Depreciation	(1,227,221)	0	(1,227,221)	0	(1,227,221)	(1,227,221)
21	Net Utility Plant	1,539,337	(1,312)	1,538,025	0	1,538,025	0
22	Aid in Advance of Construction	(2,852)	0	(2,852)	0	(2,852)	(2,852)
23	Customer Deposits	(4,446)	0	(4,446)	0	(4,446)	(4,446)
24	Materials & Supplies	61,966	0	61,966	0	61,966	61,966
25	Leasehold Improvements	336	0	336	0	336	336
26	Accumulated Deferred Income Taxes	(431,266)	0	(431,266)	0	(431,266)	(431,266)
27	Total Rate Base	\$1,163,075	(\$1,312)	\$1,161,763	\$0	\$1,161,763	\$0
28	Rate of Return	<u>7.110%</u>		<u>7.200%</u>		<u>7.200%</u>	<u>7.330%</u>
29	Return on Common Equity	<u>8.817%</u>		<u>8.998%</u>		<u>8.998%</u>	<u>9.259%</u>



Rates & Regulatory Affairs

**ANNUAL EARNINGS REVIEW
For the Twelve Months Ended December 31, 2017**

Description of TYPE I Adjustments

This report was developed in a manner consistent with the earnings review directives adopted in UM 903. The determination of the various adjustments included in this report reflect those typical and routinely developed adjustments as were also adopted in the Company's 2011 general rate filing (UG 221), and continue to be appropriate.

Weather Normalization and Gas Costs [Column 2(a)]:

This adjustment approximates the volumetric effects of weather on sales and gas costs. Core market volumes have been weather normalized; however, no industrial volumes have been adjusted. The adjustment also reflects the removal of the effects of the WARM mechanism pursuant to Order No. 03-507.

Miscellaneous Revenue Adjustment [Column 2(b)]:

This adjustment reflects the normalization of other tariffed utility fees and revenues to a historical three-year average. The adjustment also reflects the removal of the effect of the Decoupling mechanism pursuant to Order No. 03-507 and the removal of the effect of deferrals related to SB408.

Commission-Required Advertising Disallowance [Column 2(c)]:

This adjustment reduces the Company's recorded expenses for advertising consistent with the methodology stipulated to in UG 221.

Membership and Dues Adjustment [Column 2(d)]:

Removes the promotional portion of industry associated expenses, consistent with the methodology adopted in the Company's 1998 general rate case (UG 132). The adjustment also reflects the removal of certain costs charged to operational and maintenance expense related to promotional and other activities.

Normalization of Property Tax Expense [Column 2(e)]:

Removes the expense accruals for the year and reflects the actual cash payments made during the test period.

Uncollectible Accounts [Column 2(f)]:

This adjustment normalizes the test year accrual for Uncollectible expense to a three-year average of "actual net bad debt write-offs."

Capital Stock Expense [Column 2(g)]:

The three-year average approach adopted in this adjustment is consistent with both company experience and Commission policy adopted in the Company's 1998 general rate case.

Performance-Based Compensation [Column 2(h)]:

This adjustment depicts the disallowance of performance-based compensation as stipulated to in the Company's 2011 general rate case (UG 221 methodology).

Description of TYPE II Adjustments:

The Company has no Type II adjustments for 2017.

NW Natural
Test year Normalizing Adjustments: TYPE I ADJUSTMENTS
2017 Oregon Earnings Review
(\$000)

Line No.	Column A from Page 1	Weather Normalization & Gas Costs Adjustment	Miscellaneous Revenue Adjustment	Advertising & Promotional Adjustment	Memberships and Dues Adjustment	Property Taxes Adjustment	Uncollectible Accounts Adjustment	Stock Issuance Adjustment	Bonus Adjustment	Rate Case Expense Adjustment	Total Type I Adjustments	Column C from Page 1
	worksheet #:	(2a)	(2b)	(2c)	(2d)	(2e)	(2f)	(2g)	(2h)	(2i)		
Operating Revenues												
1	Sale of Gas	\$671,195	(\$18,268)								(\$18,268)	\$652,927
2	WARM Revenue	(16,870)	11,706	5,164							16,870	
3	Revenue & Technical Adjustments	(6,188)		0							0	(6,188)
4	Decoupling Adjustment	8,638		(8,638)							(8,638)	0
5	Transportation	17,987									0	17,987
6	Miscellaneous Revenues	3,609		0							0	3,609
7	Total Operating Revenues	678,371	(6,561)	(3,474)	0	0	0	0	0	0	(10,035)	668,336
Operating Revenue Deductions												
8	Gas Purchased	295,366	(8,085)								(8,085)	287,282
9	Uncollectible Accrual	771	(22)	0	0	0	3		0		(19)	752
10	Other Operating & Maintenance Expenses	146,326			(968)	(1,590)		1,227	(2,854)	150	(4,035)	142,291
11	Total Operating & Maintenance Exp.	442,463	(8,106)	0	(968)	(1,590)	3	1,227	(2,854)	150	(12,138)	430,325
12	Federal Income Tax	30,467	557	(1,168)	313	514	87	0	935	(49)	1,188	31,655
13	State Excise	7,231	131	(275)	74	121	20	0	220	(11)	280	7,511
14	Property Taxes	20,386					(268)		0		(268)	20,118
15	Other Taxes	24,016	(177)	139	0	0	0	0	0	0	(38)	23,978
16	Depreciation & Amortization	71,062						0	0		0	71,062
17	Total Operating Revenue Deductions	595,626	(7,595)	(1,304)	(581)	(955)	(161)	1,227	(1,699)	90	(10,976)	584,650
18	Net Operating Revenues	82,745	1,034	(2,170)	581	955	161	(1,227)	1,699	(90)	941	83,686
Average Rate Base												
19	Utility Plant in Service	2,766,558							(1,312)		(1,312)	2,765,246
20	Accumulated Depreciation Materials & Supplies	(1,227,221)							0		0	(1,227,221)
21	Net Utility Plant	1,539,337	0	0	0	0	0	0	(1,312)	0	(1,312)	1,538,025
22	Aid in Advance of Construction	(2,852)									0	(2,852)
23	Customer Deposits	(4,446)									0	(4,446)
24	Materials & Supplies	61,966									0	61,966
25	Leasehold Improvements	336									0	336
26	Accumulated Deferred Income Taxes	(431,266)									0	(431,266)
27	Total Rate Base	\$1,163,075	\$0	\$0	\$0	\$0	\$0	\$0	(\$1,312)	\$0	(\$1,312)	\$1,161,763
28	Interest Coordination		0	0	0	0	0	0	(36)	0	(36)	(36)

Northwest Natural Gas Company
Test year Normalizing Adjustments: TYPE I ADJUSTMENTS
2017 Oregon Earnings Review
(\$000)

Income Tax Calculations

Line No.	Income Tax Calculations	Weather Normalization & Repricing Adjustment (2a)	Other Revenue Adjustment (2b)	Advertising Adjustment (2c)	Memberships and Dues Adjustment (2d)	Property Taxes Adjustment (2e)	Uncollectible Accounts Adjustment (2f)	Stock Issuance Adjustment (2g)	Accrued Bonus Adjustment (2h)	Rate Case Expense Adjustment	Total Adjustments (2i)
1	Book Revenues	(6,561)	(3,474)	0	0	0	0	0	0	0	(10,035)
2	Book Expenses before Deprec. & Int.	(8,283)	139	(968)	(1,590)	(268)	3	0	(2,854)	150	(13,671)
3	State Tax Depreciation	0	0	0	0	0	0	0	0	0	0
4	Interest Expense (Income)	0	0	0	0	0	0	0	(36)	0	(36)
5	Book/Tax Differences (Sched. M)	0	0	0	0	0	0	0	0	0	0
6	State Taxable Income	1,722	(3,613)	968	1,590	268	(3)	0	2,890	(150)	3,672
7	State Excise Tax [1]	131	(275)	74	121	20	0	0	220	(11)	280
8	State Tax Credit	0	0	0	0	0	0	0	0	0	0
9	Net State Income Tax	131	(275)	74	121	20	0	0	220	(11)	280
10	Excess Book(Tax) Deprec.	0	0	0	0	0	0	0	0	0	0
11	Other Sched. M Differences	0	0	0	0	0	0	0	0	0	0
12	Federal Taxable Income	1,591	(3,338)	894	1,469	248	(3)	0	2,670	(139)	3,392
13	Federal Income Tax [2]	557	(1,168)	313	514	87	(1)	0	935	(49)	1,188
14	ITC	0	0	0	0	0	0	0	0	0	0
15	Current Federal Tax	557	(1,168)	313	514	87	(1)	0	935	(49)	1,188
16	Deferred Income Tax - Federal	0	0	0	0	0	0	0	0	0	0
17	Deferred Income Tax - State	0	0	0	0	0	0	0	0	0	0
18	ITC Restored (Deferred)	0	0	0	0	0	0	0	0	0	0
19	Total Federal Tax	557	(1,168)	313	514	87	(1)	0	935	(49)	1,188
20	Total State Tax	131	(275)	74	121	20	0	0	220	(11)	280

[1] Statutory State Excise Tax Rate: 7.60%
[2] Statutory Federal Income Tax Rate: 35.00%

NW Natural
 Test year Normalizing Adjustments: TYPE II ADJUSTMENTS
 2017 Oregon Earnings Review
 (\$000)

Line No.	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	Total Type II Adjustments
<u>Operating Revenues</u>										
1										\$0
2										0
3										0
4										0
5										0
6										0
7	0	0	0	0	0	0	0	0	0	0
<u>Operating Revenue Deductions</u>										
8	0									0
9										0
10										0
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0
14										0
15	0	0	0	0	0	0	0	0	0	0
16								0	0	0
17	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0
<u>Average Rate Base</u>										
19										0
20								0	0	0
21	0	0	0	0	0	0	0	0	0	0
22										0
23										0
24										0
25										0
26										0
27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	0	0	0	0	0	0	0	0	0	0

Northwest Natural Gas Company
 Test year Normalizing Adjustments: TYPE II ADJI Income Tax Calculations
 2017 Oregon Earnings Review
 (\$000)

Line No.		No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	No Adjustments	Total Adjustments
1	Book Revenues	0	0	0	0	0	0	0	0	0
2	Book Expenses before Deprec. & Int.	0	0	0	0	0	0	0	0	0
3	State Tax Depreciation	0	0	0	0	0	0	0	0	0
4	Interest Expense (Income)	0	0	0	0	0	0	0	0	0
5	Book/Tax Differences (Sched. M)	0	0	0	0	0	0	0	0	0
6	State Taxable Income	0	0	0	0	0	0	0	0	0
7	State Excise Tax [1]	0	0	0	0	0	0	0	0	0
8	State Tax Credit	0	0	0	0	0	0	0	0	0
9	Net State Income Tax	0	0	0	0	0	0	0	0	0
10	Excess Book(Tax) Deprec.	0	0	0	0	0	0	0	0	0
11	Other Sched. M Differences	0	0	0	0	0	0	0	0	0
12	Federal Taxable Income	0	0	0	0	0	0	0	0	0
13	Federal Income Tax [2]	0	0	0	0	0	0	0	0	0
14	ITC	0	0	0	0	0	0	0	0	0
15	Current Federal Tax	0	0	0	0	0	0	0	0	0
16	Deferred Income Tax - Federal	0	0	0	0	0	0	0	0	0
17	Deferred Income Tax - State	0	0	0	0	0	0	0	0	0
18	ITC Restored (Deferred)	0	0	0	0	0	0	0	0	0
19	Total Federal Tax	0	0	0	0	0	0	0	0	0
20	Total State Tax	0	0	0	0	0	0	0	0	0

[1] Statutory State Excise Tax Rate: 7.60%
 [2] Statutory Federal Income Tax Rate: 35.00%

NW Natural
Tax Provision - Historic
2017 Oregon Earnings Review
(\$000)

Line No.		State Taxes	Federal Taxes
1	Operating Revenues	\$678,371	\$678,371
2	Operating Revenue Deductions	442,463	442,463
3	Property & Other Taxes	44,402	44,402
4	Book Depreciation	71,062	71,062
5	Interest (Rate Base * Cost of Debt)	31,636	31,636
6	State Tax Deduction	-	7,231
7	Subtotal	88,808	\$81,577
8	Permanent Differences	6,339	5,484
9	Taxable Income	95,147	\$87,061
10	Tax Rate	7.60%	35.00%
11	Tax Before Credits and Adjustments	7,231	30,471
12	Credits & Adjustments	0	(4)
13	Total Tax	<u>\$7,231</u>	<u>\$30,467</u>

NW Natural
12 Months Ended December 31, 2017
Input Assumptions
Proforma Cost of Capital

Line No.		13-month averages		
		% of Total Capital	Average Cost	Average Weighted Cost
		(a)	(b)	(c)
1	Long Term Debt	50.21%	5.410%	2.72%
2	Preferred Stock	0.00%	0.000%	0.00%
3	Common Stock	49.79%	9.500%	4.73%
4	Total	<u>100.00%</u>		<u>7.45%</u>
Revenue Sensitive Costs				
5	Gas Sales	97.69%		
6	Transportation	2.69%		
7	Other	-0.39%		
8	Subtotal	<u>100.00%</u>		
9	O & M - Uncollectible	0.12%		
10	Franchise Taxes at	2.42%		
11	OPUC Fee	0.28%		
12	State Taxable Income	<u>97.18%</u>		
13	State Income Tax	7.39%		
14	Federal Taxable Income	<u>89.80%</u>		
15	Federal Income Tax	31.43%		
16	Total Income Taxes	<u>38.82%</u>		
17	Total Revenue Sensitive Costs	41.63%		
18	Utility Operating Income	<u>58.37%</u>		
19	Materials & Supplies	171.32%		
20	Interest Coordination Factor	2.72%		
21	Rate of Return	9.50%		
22	Federal tax rate	35.000%		
23	State tax rate	7.600%		
24	Franchise Fees	2.423%		
25	Uncollectible Accounts	0.12%		
26	Regulatory fees	0.275%		

NW Natural
2017 Oregon Earnings Review
Rate Base

	2016 Dec	2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 June	2017 July	2017 August	2017 September	2017 October	2017 November	2017 December	Dec 16 - Dec 17 13 month average	
SYSTEM	System 1	System 2	System 3	System 4	System 5	System 6	System 7	System 8	System 9	System 10	System 11	System 12	System 13	System 14	Allocation Method
Gross Plant															
Intangible															
Software	99,590,429	100,389,064	101,591,919	101,608,015	101,626,899	101,621,923	101,646,111	101,643,836	101,713,441	102,343,776	102,795,439	103,900,996	105,175,574	101,938,702	Total Customers
Other	84,795	84,795	84,795	84,795	84,795	84,795	84,795	84,795	84,795	84,795	84,795	84,795	84,795	84,795	Direct
Production	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	Direct
Transmission	163,396,889	163,576,895	163,866,679	163,883,241	164,394,939	164,494,359	164,523,028	164,754,098	165,023,380	165,102,348	165,326,950	165,348,542	166,587,143	164,607,206	Direct
Distribution	2,078,201,641	2,083,153,338	2,086,518,571	2,094,207,113	2,100,504,089	2,103,991,742	2,110,055,412	2,115,879,982	2,126,680,760	2,132,874,662	2,140,000,757	2,148,386,972	2,161,775,493	2,113,520,164	Direct
General	188,971,283	189,888,987	193,124,451	194,162,687	196,156,443	196,000,212	196,852,237	200,343,295	201,568,288	201,710,779	198,212,122	201,757,405	203,449,576	197,165,611	3-Factor & Direct
Storage and storage transmission CNG and LNG	293,475,195 3,790,768	293,497,583 3,790,768	293,770,417 3,790,768	293,777,783 3,790,768	301,051,419 3,790,768	301,250,486 3,790,768	309,065,442 3,790,768	312,313,607 3,790,768	312,605,292 3,790,768	312,776,312 3,790,768	316,309,651 3,790,768	316,695,313 3,790,768	314,220,159 3,790,768	305,580,082 3,790,768	Firm Delivered Volumes 3-Factor
Gas Reserves	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	Direct
Total Gross Plant	3,015,722,664	3,022,593,092	3,030,959,263	3,039,726,065	3,055,821,014	3,059,445,948	3,074,229,457	3,087,022,044	3,099,678,387	3,106,895,103	3,114,732,147	3,128,176,455	3,143,295,171	3,074,898,991	
Accumulated Depreciation															
Intangible															
Production	(60,448,256)	(60,686,739)	(60,928,816)	(61,173,082)	(61,417,411)	(61,661,765)	(61,906,153)	(62,150,581)	(62,395,130)	(62,524,338)	(62,759,202)	(62,996,864)	(63,238,775)	(61,870,300)	Total Customers
Transmission	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	Direct
Distribution	(31,497,222)	(31,906,124)	(32,316,885)	(32,726,776)	(33,137,744)	(33,549,085)	(33,961,012)	(34,372,831)	(34,785,279)	(35,198,591)	(35,611,864)	(36,025,882)	(36,441,032)	(33,963,433)	Direct
General	(958,244,108)	(961,751,548)	(965,529,153)	(968,562,909)	(972,136,684)	(975,600,817)	(979,317,630)	(982,994,616)	(986,632,490)	(990,378,350)	(994,028,245)	(997,877,669)	(1,001,460,546)	(979,555,203)	Direct
General	(59,083,510)	(59,800,130)	(59,846,682)	(60,642,706)	(61,408,738)	(61,835,353)	(62,634,131)	(63,510,202)	(64,404,014)	(64,966,112)	(61,732,421)	(62,598,195)	(63,488,973)	(62,055,411)	3-Factor
Storage and storage transmission CNG and LNG	(130,835,036) (2,100,004)	(131,439,061) (2,102,648)	(132,044,676) (2,105,293)	(132,649,416) (2,107,937)	(133,263,749) (2,110,582)	(133,887,098) (2,113,226)	(134,518,398) (2,115,871)	(135,158,395) (2,118,515)	(135,800,647) (2,121,159)	(136,434,080) (2,123,804)	(137,060,613) (2,126,448)	(137,688,204) (2,129,093)	(138,316,844) (2,131,737)	(134,406,940) (2,115,870)	Firm Delivered Volumes 3-Factor
Gas Reserves	(71,426,542)	(72,880,456)	(74,146,530)	(75,528,661)	(76,828,825)	(78,169,645)	(79,444,202)	(80,779,012)	(82,094,166)	(83,442,012)	(84,831,974)	(86,318,096)	(87,779,706)	(79,505,558)	Direct
Total Accumulated Depreciation	(1,314,325,713)	(1,321,257,742)	(1,327,609,070)	(1,334,082,524)	(1,340,994,768)	(1,347,508,026)	(1,354,588,433)	(1,361,775,188)	(1,368,923,922)	(1,375,758,322)	(1,378,841,803)	(1,386,325,037)	(1,390,274,648)	(1,354,163,751)	
Storage Gas	59,676,519	46,210,521	44,971,711	51,492,511	52,378,105	60,211,800	62,242,529	63,267,469	64,526,400	65,917,459	67,407,944	67,730,082	57,654,525	58,751,838	Firm Delivered Volumes
Customer Advances	(3,740,828)	(3,280,653)	(3,447,908)	(3,496,037)	(3,566,303)	(3,443,749)	(3,466,542)	(3,439,074)	(3,541,636)	(3,431,840)	(3,458,338)	(3,296,312)	(3,444,569)	(3,296,312)	Direct
Customer Deposits	(4,959,453)	(5,126,524)	(5,097,082)	(5,066,193)	(4,998,851)	(5,039,343)	(4,975,140)	(4,835,802)	(4,886,092)	(4,923,576)	(4,963,325)	(5,012,235)	(5,087,361)	(4,995,631)	Total Customers
Materials and Supplies	11,026,710	10,832,755	10,850,090	10,786,422	11,135,148	11,238,709	11,165,970	11,156,196	10,907,576	10,730,541	10,894,823	11,206,873	10,941,971	10,990,787	Gross Distribution Plant %
Appliances	(924,116)	(796,011)	(863,865)	(772,595)	(817,771)	(767,005)	(774,149)	(713,342)	(806,381)	(812,237)	(849,708)	(895,855)	(863,669)	(813,568)	Direct
Leasehold Improvements	500,783	482,395	461,741	441,117	420,486	399,865	377,644	355,433	332,912	311,030	289,990	273,289	279,959	378,023	Direct & 3-Factor
Total Rate Base Excluding ADIT	1,762,976,566	1,749,657,833	1,750,224,881	1,759,028,766	1,769,377,060	1,774,538,199	1,784,211,336	1,791,037,736	1,797,287,244	1,798,928,157	1,805,211,730	1,811,909,390	1,812,649,635	1,781,602,119	

NW Natural
2017 Oregon Earnings Review
Rate Base

	2016	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	Dec 16 - Dec 17
<u>OREGON</u>	2016	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	Dec 16 - Dec 17
<u>Gross Plant</u>	Dec	Jan	Feb	Mar	Apr	May	June	July	August	September	October	November	December	13 month average	
	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	OREGON	
Intangible	88,774,909	89,486,812	90,559,037	90,573,385	90,590,217	90,585,782	90,607,343	90,605,315	90,667,361	91,229,242	91,631,854	92,617,348	93,753,506	90,868,159	Total Customers
Software	84,348	84,348	84,348	84,348	84,348	84,348	84,348	84,348	84,348	84,348	84,348	84,348	84,348	84,348	Direct
Other	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	675,198	Direct
Production	162,342,094	162,518,136	162,800,391	162,811,932	163,321,896	163,418,054	163,438,760	163,663,395	163,917,673	163,987,674	164,212,277	164,233,868	165,472,470	163,519,278	Direct
Transmission	1,829,990,097	1,834,514,224	1,837,315,510	1,844,200,902	1,848,712,908	1,851,976,130	1,857,267,465	1,862,290,960	1,867,061,511	1,872,543,945	1,878,221,890	1,883,873,494	1,894,090,110	1,858,334,920	Direct
Distribution	174,551,906	175,376,785	178,288,967	179,227,276	181,019,491	180,881,776	181,647,623	184,785,188	185,891,778	186,019,988	182,876,080	186,063,030	187,604,643	181,929,688	3-Factor & Direct
Storage and storage transmission	269,224,955	269,245,258	269,492,691	269,499,371	276,095,832	276,276,366	283,363,750	286,309,510	286,574,039	286,729,137	289,933,523	290,283,280	288,038,562	280,202,876	Firm Delivered Volumes
CNG and LNG	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3,406,764	3-Factor
Gas Reserves	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	187,536,465	Direct
Total Gross Plant	2,716,586,735	2,722,843,989	2,730,159,370	2,738,015,640	2,751,443,119	2,754,840,882	2,768,027,716	2,779,357,143	2,785,815,136	2,792,212,761	2,798,578,399	2,808,773,794	2,820,662,065	2,766,557,696	
Accumulated Depreciation															
Intangible	(53,883,576)	(54,096,159)	(54,311,947)	(54,529,685)	(54,747,480)	(54,965,297)	(55,183,145)	(55,401,028)	(55,619,019)	(55,734,195)	(55,943,553)	(56,155,404)	(56,371,044)	(55,151,185)	Total Customers
Production	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	(691,036)	Direct
Transmission	(31,371,468)	(31,778,566)	(32,187,511)	(32,595,576)	(33,004,712)	(33,414,218)	(33,824,299)	(34,234,260)	(34,644,832)	(35,056,248)	(35,467,616)	(35,879,730)	(36,292,976)	(33,826,649)	Direct
Distribution	(856,567,367)	(859,765,091)	(863,008,454)	(865,580,292)	(868,701,320)	(871,703,696)	(874,914,705)	(878,074,919)	(881,199,246)	(884,423,308)	(887,653,884)	(891,009,404)	(894,057,390)	(875,112,225)	Direct
General	(53,804,565)	(54,455,703)	(54,504,654)	(55,227,164)	(55,922,724)	(56,313,254)	(57,038,249)	(57,832,706)	(58,643,113)	(59,155,413)	(59,256,437)	(57,041,652)	(57,849,356)	(56,518,169)	3-Factor
Storage and storage transmission	(121,231,070)	(121,786,281)	(122,342,950)	(122,898,810)	(123,463,375)	(124,036,112)	(124,616,064)	(125,203,899)	(125,793,778)	(126,375,665)	(126,951,288)	(127,527,876)	(128,103,221)	(124,514,979)	Firm Delivered Volumes
CNG and LNG	(1,887,273)	(1,889,650)	(1,892,027)	(1,894,403)	(1,896,780)	(1,899,156)	(1,901,533)	(1,903,909)	(1,906,286)	(1,908,663)	(1,911,039)	(1,913,416)	(1,915,792)	(1,901,533)	3-Factor
Gas Reserves	(71,426,542)	(72,880,456)	(74,146,530)	(75,528,661)	(76,828,825)	(78,169,645)	(79,444,202)	(80,779,012)	(82,094,166)	(83,442,012)	(84,831,974)	(86,318,096)	(87,779,706)	(79,505,558)	Direct
Total Accumulated Depreciation	(1,190,862,896)	(1,197,342,941)	(1,203,085,107)	(1,208,945,628)	(1,215,256,252)	(1,221,192,415)	(1,227,613,233)	(1,234,120,769)	(1,240,591,476)	(1,246,786,539)	(1,249,706,828)	(1,256,536,614)	(1,260,093,520)	(1,227,221,334)	
Storage Gas	54,120,635	41,769,690	40,649,930	46,544,080	47,344,569	54,425,446	56,261,022	57,187,466	58,325,413	59,582,791	60,930,041	61,221,221	52,113,925	53,113,246	Firm Delivered Volumes
Customer Advances	(3,236,500)	(2,771,393)	(2,927,383)	(2,964,217)	(2,999,874)	(2,853,284)	(2,859,333)	(2,820,069)	(2,896,136)	(2,810,504)	(2,804,865)	(2,586,467)	(2,627,476)	(2,852,126)	Direct
Customer Deposits	(4,420,856)	(4,562,094)	(4,535,893)	(4,508,405)	(4,448,478)	(4,484,511)	(4,427,377)	(4,303,380)	(4,348,133)	(4,381,490)	(4,416,863)	(4,460,388)	(4,527,243)	(4,445,922)	Total Customers
Materials and Supplies	9,746,509	9,525,242	9,540,484	9,484,501	9,791,136	9,882,196	9,818,237	9,809,643	9,591,031	9,435,364	9,579,818	9,854,203	9,621,275	9,666,312	Gross Distribution Plant %
Appliances	(924,116)	(796,011)	(863,865)	(772,595)	(817,771)	(767,005)	(774,149)	(713,342)	(806,381)	(812,237)	(849,708)	(895,855)	(863,669)	(813,568)	Direct
Leasehold Improvements	450,054	428,945	410,580	392,241	373,896	355,560	335,801	316,051	296,025	276,568	257,859	243,008	248,939	336,336	Direct & 3-Factor
Total Rate Base Excluding ADIT	1,581,459,565	1,569,095,427	1,569,348,116	1,577,245,618	1,585,430,345	1,590,206,869	1,598,768,684	1,604,712,742	1,605,385,480	1,606,716,714	1,611,567,853	1,615,612,903	1,614,534,296	1,594,340,640	

NW Natural
2017 Oregon Earnings Review
Rate Base

		2016	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	Dec 16 - Dec 17
		2016	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	Dec 16 - Dec 17
<u>WASHINGTON</u>		Dec	Jan	Feb	Mar	Apr	May	June	July	August	September	October	November	December	13 month average	
<u>Gross Plant</u>		WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON	WASHINGTON
Intangible	Software	10,815,521	10,902,252	11,032,882	11,034,630	11,036,681	11,036,141	11,038,768	11,038,521	11,046,080	11,114,534	11,163,585	11,283,648	11,422,067	11,070,543	
	Other	447	447	447	447	447	447	447	447	447	447	447	447	447	447	
Production																
Transmission		1,054,795	1,058,759	1,066,287	1,071,309	1,073,043	1,076,305	1,084,268	1,090,703	1,105,707	1,114,674	1,114,674	1,114,674	1,114,674	1,087,928	
Distribution		248,211,544	248,639,114	249,203,061	250,006,211	251,791,180	252,015,612	252,787,947	253,589,022	259,619,248	260,330,717	261,778,867	264,513,478	267,685,383	255,185,243	
General		14,419,376	14,512,201	14,835,484	14,935,411	15,136,952	15,118,436	15,204,614	15,558,107	15,676,511	15,690,791	15,336,042	15,694,375	15,844,933	15,235,923	
Storage and storage transmission		24,250,241	24,252,325	24,277,726	24,278,412	24,955,587	24,974,120	25,701,693	26,004,097	26,031,253	26,047,175	26,376,129	26,412,034	26,181,597	25,377,206	
CNG and LNG		384,005	384,005	384,005	384,005	384,005	384,005	384,005	384,005	384,005	384,005	384,005	384,005	384,005	384,005	
Total Gross Plant		299,135,928	299,749,104	300,799,892	301,710,425	304,377,895	304,605,066	306,201,741	307,664,901	313,863,251	314,682,342	316,153,748	319,402,661	322,633,106	308,341,295	
Accumulated Depreciation																
Intangible		(6,564,681)	(6,590,580)	(6,616,869)	(6,643,397)	(6,669,931)	(6,696,468)	(6,723,008)	(6,749,553)	(6,776,111)	(6,790,143)	(6,815,649)	(6,841,459)	(6,867,731)	(6,719,115)	
Production		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Transmission		(125,753)	(127,559)	(129,374)	(131,200)	(133,031)	(134,867)	(136,713)	(138,571)	(140,447)	(142,343)	(144,247)	(146,152)	(148,056)	(136,784)	
Distribution		(101,676,710)	(101,986,426)	(102,520,668)	(102,982,586)	(103,435,333)	(103,897,089)	(104,402,925)	(104,919,697)	(105,433,244)	(105,955,041)	(106,374,361)	(106,868,265)	(107,403,156)	(104,442,964)	
General		(5,278,945)	(5,344,427)	(5,342,028)	(5,415,542)	(5,486,013)	(5,522,099)	(5,595,883)	(5,677,496)	(5,760,901)	(5,810,699)	(5,475,983)	(5,556,542)	(5,639,617)	(5,537,241)	
Storage and storage transmission		(9,603,966)	(9,652,780)	(9,701,726)	(9,750,606)	(9,800,374)	(9,850,987)	(9,902,334)	(9,954,497)	(10,006,869)	(10,058,416)	(10,109,325)	(10,160,327)	(9,906,623)	(9,891,961)	
CNG and LNG		(212,730)	(212,998)	(213,266)	(213,534)	(213,802)	(214,070)	(214,338)	(214,606)	(214,873)	(215,141)	(215,409)	(215,677)	(215,945)	(214,338)	
Total Accumulated Depreciation		(123,462,785)	(123,914,770)	(124,523,931)	(125,136,865)	(125,738,484)	(126,315,580)	(126,975,200)	(127,654,419)	(128,332,446)	(128,971,784)	(129,134,975)	(129,788,423)	(130,181,128)	(126,942,403)	
Storage Gas		5,555,884	4,440,831	4,321,781	4,948,431	5,033,536	5,786,354	5,981,507	6,080,003	6,200,987	6,334,668	6,477,903	6,508,861	5,540,600	5,638,592	
Customer Advances		(504,328)	(509,260)	(520,525)	(531,820)	(566,429)	(590,465)	(607,209)	(619,005)	(645,500)	(621,337)	(653,473)	(657,716)	(668,837)	(592,443)	
Customer Deposits		(538,597)	(564,430)	(561,189)	(557,788)	(550,374)	(554,832)	(547,763)	(532,422)	(537,959)	(542,086)	(546,462)	(551,847)	(560,118)	(549,709)	
Materials and Supplies		1,280,201	1,307,513	1,309,606	1,301,921	1,344,012	1,356,513	1,347,733	1,346,553	1,316,545	1,295,177	1,315,005	1,352,670	1,320,696	1,324,475	
Appliances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Leasehold Improvements		68,950	53,449	51,161	48,876	46,590	44,305	41,843	39,382	36,887	34,462	32,131	30,280	31,019	42,446	
Total Rate Base Excluding ADIT		181,535,254	180,562,437	180,876,797	181,783,180	183,946,747	184,331,361	185,442,652	186,324,994	191,901,764	192,211,443	193,643,877	196,296,487	198,115,339	187,262,253	

Average Rate Base Allocation Factors

	OR	WA	System
13 MONTH AVERAGES:			
Average Gross Plant	2,766,557,696	308,341,295	3,074,898,991
Gross Plant Average Factor	89.97%	10.03%	
Average Accumulated Deprec	(1,227,221,334)	(126,942,403)	(1,354,163,737)
Accumulated Deprec Average Factor	90.63%	9.37%	
Average Leasehold Improvements	336,336	42,446	378,782
Leasehold Improvement Average Factor	88.79%	11.21%	
Average Customer Advances	(2,852,126)	(592,443)	(3,444,569)
Customer Advance Average Factor	82.80%	17.20%	
Growth in Gross Plant	104,075,330	23,497,178	127,572,508
Gross Plant Growth Factor	81.58%	18.42%	
Average Materials & Supplies	61,965,990	6,963,067	68,929,057
Materials & Supplies Average Factor	89.90%	10.10%	
Average Distribution Plant	1,858,334,920	255,185,243	2,113,520,164
Distribution Plant Average Factor	87.93%	12.07%	
Average Total Rate Base	1,594,340,640	187,262,253	1,781,602,893
Rate Base Average Factor	89.49%	10.51%	

NW Natural
2017 Oregon Earnings Review
12 Months Ended December 31, 2017

Deferred Income Taxes

1 **WA Allocation factor: Accumulated Depreciation** **9.37%**

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3 **2016 December Balances:**

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	Federal	State	SYS Total	Washington Allocation	Oregon Allocation
Accumulated Deferred Income Tax - Depreciation	(346,009,616)	(71,286,235)	(417,295,851)	(34,758,933)	(382,536,918)
Accumulated Deferred Income Tax - Gas Reserves	(21,470,046)	(6,648,818)	(28,118,864)	0	(28,118,864)
Accumulated Deferred Income Tax - Other	(10,387,882)	(483,731)	(10,871,613)	(989,209)	(9,882,404)
2015 Balances	(377,867,544)	(78,418,784)	(456,286,328)	(35,748,142)	(420,538,187)
2017 December Balances:					
	Federal	State	SYS Total	Washington Allocation	Oregon Allocation
Accumulated Deferred Income Tax - Depreciation	(356,970,635)	(73,842,204)	(430,812,839)	(35,869,804)	(394,943,035)
Accumulated Deferred Income Tax - Gas Reserves	(28,042,242)	(5,874,791)	(33,917,033)	0	(33,917,033)
Accumulated Deferred Income Tax - Other	(13,102,128)	(1,301,866)	(14,403,994)	(1,270,364)	(13,133,630)
2017 Balances	(398,115,005)	(81,018,861)	(479,133,866)	(37,140,168)	(441,993,698)

Simple Average December Balances (use for Rate Base) **(36,444,155)** **(431,265,943)**

Gas Reserves Average December Balances **(31,017,949)**

**NW Natural
State Allocation Factors
As of December 31, 2017**

Allocation Factors - Summary	Oregon	Washington
Customers-all	88.990%	11.010%
Customers-Residential	88.880%	11.120%
Customers-Commercial	89.970%	10.030%
Customers-Industrial	92.010%	7.990%
Customers-The Dalles	74.830%	25.170%
3-factor	88.920%	11.080%
firm volumes	90.390%	9.610%
sales volumes	90.140%	9.860%
sendout volumes	91.710%	8.290%
sales/sendout volumes	90.930%	9.070%
Customers Portland/Vancouver	84.910%	15.090%
Customers Portland/Vancouver 80%	87.930%	12.070%
Customers Portland/Vancouver Commercial	85.170%	14.830%
Payroll	89.502%	10.498%
Admin Transfer	88.583%	11.417%
Employee Cost	89.530%	10.470%
Regulatory	70.000%	30.000%
Telemetry	91.300%	8.700%
Direct-Wa	0.000%	100.000%
Direct-Or	100.000%	0.000%
Gross plant direct assign	88.670%	11.330%
Transmission	98.830%	1.170%
Depreciation	89.120%	10.880%
Rate Base	89.489%	10.511%

**NW Natural
State Allocation Factors
As of December 31, 2017**

	System	Oregon	Washington
Customers			
Total Customers			
December 2017	737,873	656,031	81,842
December 2016	725,146	645,883	79,263
Average	731,510	650,957	80,553
% of System		88.99%	11.01%
Residential Customers			
December 2017	668,803	593,998	74,805
December 2016	656,855	584,289	72,566
Average	662,829	589,144	73,686
% of System		88.88%	11.12%
Commercial Customers			
December 2017	67,881	60,944	6,937
December 2016	67,278	60,657	6,621
Average	67,580	60,801	6,779
% of System		89.97%	10.03%
Industrial Customers			
December 2017	1,189	1,089	100
December 2016	1,013	937	76
Average	1,101	1,013	88
% of System		92.01%	7.99%
The Dalles			
December 2017	8,119	6,079	2,040
December 2016	7,930	5,930	2,000
Average	8,025	6,005	2,020
% of System		74.83%	25.17%
Portland / Vancouver			
December 2017	524,992	445,190	79,802
December 2016	516,011	438,748	77,263
Average	520,502	441,969	78,533
% of System		84.91%	15.09%
Portland / Vancouver Commercial			
December 2017	44,470	37,746	6,724
December 2016	44,041	37,635	6,406
Average	44,256	37,691	6,565
% of System		85.17%	14.83%

**NW Natural
State Allocation Factors**

Volumes - 12 Months Ended 12/31/17

Firm Delivered (exclude Unbilled) % of System	944,407,495	853,626,090 90.39%	90,781,405 9.61%
Sales Volumes (exclude Unbilled) % of System	831,773,110	749,800,924 90.14%	81,972,186 9.86%
Sendout Volumes % of System	1,240,944,848	1,138,047,492 91.71%	102,897,356 8.29%

3-factor formula (simple average)

Gross Plant Directly Assigned		88.67%	11.33%
Number of Employees Directly Assigned		89.10%	10.90%
Number of Customers		88.99%	11.01%
Average		88.92%	11.08%

Derivation of factor for 3-factor - Gross Plant Directly Assigned

December 31, 2017

	System	Oregon	Washington
Intangible - Other	84,795	84,348	447
Production	675,198	675,198	
Transmission	166,587,143	165,472,470	1,114,674
Distribution	2,161,775,493	1,894,090,110	267,685,383

December 31, 2016

	System	Oregon	Washington
Intangible - Other	84,795	84,348	447
Production	675,198	675,198	
Transmission	163,396,889	162,342,094	1,054,795
Distribution	2,078,201,641	1,829,990,097	248,211,544

Average

	System	Oregon	Washington
Intangible - Other	84,795	84,348	447
Production	675,198	675,198	0
Transmission	164,992,016	163,907,282	1,084,734
Distribution	2,119,988,567	1,862,040,103	257,948,464

**Gross Plant Directly Assigned
% of System**

	2,285,740,577	2,026,706,931 88.67%	259,033,645 11.33%
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1	<u>Oregon Total Revenues</u>	
2		Revenue
3		<hr/>
4	Sales Revenues	659,784,356
5	Unbilled Revenues	(295,540)
6		<hr/>
7		
8	Total Sales Revenues	659,488,816
9		
10	Transportation Revenues	17,987,262
11		<hr/>
12	Grand Total Revenues	<u><u>677,476,078</u></u>
13		
14		
15	<u>Gas Costs</u>	
16		
17	Demand Charges	72,468,942
18		
19	Commodity Charges	207,863,389
20		
21		
22	Oregon Deferral Activities	15,034,029
23		<hr/>
24	Grand Total Gas Costs	<u><u>295,366,360</u></u>
25		
26		

27	Normalization Adjustments		
28			
29	<u>Revenue Adjustment</u>	<u>Therms</u>	<u>Revenue</u>
30			
31	<u>WARM Adjustment</u>		
32	WARM Revenues		13,731,615
33	WARM Revenues - Unbilled		(2,025,180)
34			<hr/>
35			11,706,435
36	<u>Weather Normalization Adjustment</u>		
37	Residential	(36,306,540)	(31,885,757)
38	Commercial	17,961,916	13,617,986
39		<hr/>	<hr/>
40		(18,344,624)	(18,267,772)
41	TOTAL NORMALIZING MARGIN ADJUSTMENT	<u>(18,344,624)</u>	<u>(6,561,337)</u>
42			
43	<u>Gas Cost Adjustment</u>		<u>Cost of Gas</u>
44			
45	WACOG equalization		0
46			
47	Weather Normalization Gas Costs		(8,084,602)
48			<hr/>
49	TOTAL GAS COST ADJUSTMENT	<u>(18,344,624)</u>	<u>(8,084,602)</u>
50			<hr/>

Type I

1 **Weather Normalization**

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	Residential			Commercial		
	Volumes	Revenues	Gas Costs	Volumes	Revenues	Gas Costs
January	(23,066,367)	(20,325,852)	(10,068,238)	(7,168,975)	(5,500,683)	(3,129,186)
February	(5,863,370)	(5,166,743)	(2,559,302)	605,957	464,945	264,494
March	(2,379,824)	(2,097,077)	(1,038,769)	1,861,805	1,428,545	812,659
April	(2,365,822)	(2,084,739)	(1,032,658)	2,098,810	1,610,396	916,109
May	1,235,867	1,089,034	539,444	2,751,954	2,111,547	1,201,201
June	(349,009)	(307,543)	(152,339)	2,575,217	1,975,938	1,124,056
July	468,193	412,567	204,362	2,061,549	1,581,806	899,846
August	2,022,514	1,782,219	882,807	2,821,125	2,164,621	1,231,393
September	178,423	157,225	77,880	1,777,091	1,363,544	775,682
October	(1,969,906)	(1,735,862)	(859,844)	1,316,969	1,010,497	574,844
November	815,969	698,281	335,420	4,968,349	3,699,929	2,042,339
December	(5,033,208)	(4,307,268)	(2,069,001)	2,292,064	1,706,900	942,199
Total	(36,306,540)	(31,885,757)	(15,740,239)	17,961,916	13,617,986	7,655,637

Total Revenue Change (18,267,772)

Total Gas Cost Change (8,084,602)

NW Natural
2017 Oregon Earnings Review
Adjustments to Miscellaneous Revenues
(\$000)

Worksheet 2b

Line No.	Actual (a)	Normalized (b)	Adjustment (c)	
<u>Revenue & Technical Adjustments</u>				
1	(\$199.3)	(\$199.3)	\$0.0	
2	11,545.2	\$11,545.2	0.0	
3	0.0	\$0.0	0.0	
4	(3,889.0)	(\$3,889.0)	0.0	
5	0.0	\$0.0	0.0	
6	(14,595.8)	(\$14,595.8)	0.0	
7	0.0	\$0.0	0.0	
8	0.0	\$0.0	0.0	
9	0.0	\$0.0	0.0	
10	0.0	\$0.0	0.0	
11	0.0	\$0.0	0.0	
12	950.8	\$950.8	0.0	
13	<u>(6,188.1)</u>	<u>(6,188.1)</u>	<u>0.0</u>	
14	<u>8,637.6</u>	<u>0.0</u>	<u>(8,637.6)</u>	
15	<u>(5,163.7)</u>	<u>0.0</u>	<u>5,163.7</u>	
<u>Other Miscellaneous Revenues</u>				
16	878.7	\$902.3	\$23.7	[1]
17	104.8	97.7	(7.1)	[1]
18	2,103.7	2,010.8	(93.0)	[1]
19	225.7	285.1	59.4	[1]
20	179.0	183.8	4.8	[1]
21	78.7	85.5	6.8	[1]
22	38.5	44.1	5.6	[1]
23	0.0	0.0	0.0	[1]
24	<u>3,609.1</u>	<u>3,609.2</u>	<u>0.1</u>	

Notes:

[1] Normalized to 3-year average

NW Natural
 2017 Oregon Earnings Review
 Advertising and Promotional Adjustment

Worksheet 2c

<u>Line No.</u>	<u>Amount</u> (a)
<u>Advertising Expense - Test Period</u>	
1 Category A	2,134,287
2 Category B	701,214
3 Category C	558,979
4 Category E	<u>0</u>
5 Total Advertising Expense	<u>\$3,394,480</u>
6 Allocation Factor (Residential Customers)	88.88%
7 Advertising Expense Allocated to Oregon	<u>\$3,017,014</u>
<u>Category A Threshold</u>	
8 Total Oregon Customers - 2016-2017 average	650,957
9 UG 221 allowed \$2.19 per customer	<u>\$2.19</u>
10 Category A Allowable	1,425,596
11 Total OR Allowable Expense (OR Line 2 plus lesser of OR Lines 1 and 10)	<u>2,048,835</u>
12 Advertising Disallowance Allocated to Oregon	<u><u>(\$968,179)</u></u>

NW Natural
 2017 Oregon Earnings Review
 Dues/Memberships and Other Promotional Adjustment

Worksheet 2d

Line No.	Operating		Non-Operating		Amount
	Amount	Percent	Amount	Percent	
	(a)	(b)	(c)	(d)	(e)
1 Gas Technology Institute	\$603,900	100%	\$603,900	0%	\$0
2 AGA	412,099	75%	309,074	25%	103,025
3 Western Energy Institute	23,572	75%	17,679	25%	5,893
4 Other	94,998	50%	47,499	50%	47,499
5 Total	<u>\$1,134,569</u>		<u>\$978,152</u>		<u>\$156,417</u>
6 Allocation Factor (3-Factor)					<u>88.92%</u>
7 Non-Operating Dues/Memberships Adjustment Allocated to Oregon					<u>139,086</u>
8 Oregon Promotional and Other Expense					<u>1,450,801</u>
9 Dues/Memberships and Other Promotional Adjustment to Oregon					<u>(\$1,589,887)</u>

NW Natural
2017 Oregon Earnings Review
Property Tax Adjustment
(\$000)

Worksheet 2e

<u>Line No.</u>	<u>Amount</u> (a)
1 Property Tax Accrual - Oregon	\$20,386
2 Property Taxes Paid - Oregon	<u>20,118</u>
3 Property Tax Adjustment	<u><u>(\$268)</u></u>

NW Natural
2017 Oregon Earnings Review
Uncollectible Accounts Adjustments
(\$000)

Worksheet 2f

Line No.		2015-2017 Total (a)	2017 Actual (b)	2016 Actual (c)	2015 Actual (c)
Gas Revenues					
1	Residential	\$1,273,637	\$458,763	\$400,895	\$413,979
2	Commercial	641,660	229,681	197,732	214,247
3	Industrial	68,076	22,757	21,048	24,271
4	Interruptible	71,243	22,173	19,289	29,781
5	Total	<u>2,054,616</u>	<u>733,374</u>	<u>638,964</u>	<u>682,278</u>
Net Write-Offs					
6	Residential	2,008	723	583	702
7	Commercial	264	98	92	74
8	Industrial	154	27	124	3
9	Interruptible	-	-	-	-
10	Total	<u>2,426</u>	<u>848</u>	<u>799</u>	<u>779</u>
Write-Off Percentage					
11	Residential	0.158%	0.158%	0.145%	0.170%
12	Commercial	0.041%	0.043%	0.047%	0.035%
13	Industrial	0.226%	0.117%	0.589%	0.012%
14	Interruptible	0.000%	0.000%	0.000%	0.000%
15	Weighted Total [1]	<u>0.118%</u>	<u>0.116%</u>	<u>0.125%</u>	<u>0.114%</u>
Normalized Uncollectible					
16	Residential	\$723			
17	Commercial	95			
18	Industrial	51			
19	Interruptible	-			
20	Total	<u>\$869</u>			
Materials & Supplies					
21	Allocation Factor (Total Customers)	<u>88.99%</u>			
22	Oregon Normalized Amount	774			
23	Oregon Allocation of Accrued Amount	<u>771</u>			
24	Adjustment (Normalized less Accrued)	<u>\$3</u>			

[1] Weighted uncollectible rate of : 0.1180% is used on page 1, column (b).

NW Natural Company
2017 Oregon Earnings Review
Common Stock Issuance expense

Worksheet 2g

<u>Line No.</u>	<u>Amount (a)</u>
1 Capital Stock Expense - 2015	\$0
2 Capital Stock Expense - 2016	4,113,920
3 Capital Stock Expense - 2017	<u>0</u>
4 Three Year Average	\$1,371,307
5 Allocation Factor (Rate Base)	<u>89.489%</u>
6 Allocated to Oregon	<u><u>\$1,227,169</u></u>

NW Natural
2017 Oregon Earnings Review
Bonus Adjustment
(\$000)

Worksheet 2h

Line No.	Assumptions:	Disallowance	Employee Merit	Company Performance
1	UG 221 requirements			
1	Officer incentives	100%		
2	Employee merit	50%		
3	Company performance	75%		
2016 Incentive Allocation				
4	Key goals	77.9%	22.1%	Apply to NBU and BU key goals.
5	NBU short-term incentives	100.0%	0.0%	Apply to NBU performance bonus.

Employee merit and Company performance incentives

	Key Goals		Performance Bonus	
	O&M	Capital	O&M	Capital
6 Officers	0	0	1,381,074	453,906
7 Non-officers exec. incentive	0	0	0	0
8 NBU	0	0	4,614,373	2,325,009
9 BU	1,015,012	609,964	0	0
10	<u>1,015,012</u>	<u>609,964</u>	<u>5,995,447</u>	<u>2,778,915</u>

UG 221 Disallowance

	O&M	Capital	
11 Officer incentives (includes non-officers exec. incentive)	(1,381,074)	(453,906)	=100% of perf. bonus
12 NBU based on employee merit	(2,307,187)	(1,162,505)	=(Key goals x 77.9% x 50%) + (Perf. bonus x 100% x 50%)
13 BU based on employee merit	(395,347)	(237,581)	=(Key goals x 77.9% x 50%)
14 NBU based on company performance	0	0	=(Key goals x 22.1% x 75%)
15 BU based on company performance	<u>(168,238)</u>	<u>(101,102)</u>	=(Key goals x 22.1% x 75%)
16	(4,251,846)	(1,955,093)	
17 25% reduction per UG 221 stipulation	<u>1,062,961</u>	<u>488,773</u>	
18 Total adjustment	<u>(3,188,884)</u>	<u>(1,466,320)</u>	

Materials & Supplies

19 Allocation factor (O&M=Payroll, Capital=Rate base)	89.50%	89.49%
20 Oregon bonus adjustment	<u>(2,854,115)</u>	<u>(1,312,195)</u>

NW Natural
2017 Oregon Earnings Review
Rate Case Expense
(\$000)

Worksheet 2i

<u>Line</u> <u>No.</u>		
1	Rate case amortization	<u>\$150</u>
2	(Per UG 221, Order No. 12-408 - \$750 over 5 years)	