



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 37

Report is required by: OAR 860-027-0070

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 37

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

2018 Annual Report for year ending December 31, 2018, FERC Form 2

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

Send confidential information, voluminous reports, or energy utility Results of Operations Reports to PUC Filing Center, PO Box 1088, Salem, OR 97308-1088 or by delivery service to 201 High Street SE Suite 100, Salem, OR 97301.

Zachary Kravitz
Director, Rates & Regulatory Affairs
Tel: 503.220.2379
Fax: 503.220.2579
Email: zachary.kravitz@nwnatural.com



May 1, 2019

VIA ELECTRONIC FILING AND US MAIL

Public Utility Commission of Oregon
Attn: Filing Center
201 High Street SE, Suite 100
Salem, Oregon 97301-3398

**Re: RG 37 – Annual Report for the year ending December 31, 2018
FERC Form 2, Oregon Supplement to FERC Form 2, and Annual Report to Shareholders**

In accordance with OAR 860-027-0070, Northwest Natural Gas Company, dba NW Natural (“NW Natural” or “Company”) files herewith its Annual FERC Form 2 Report (“FERC Form 2”), the Oregon Supplement to FERC Form 2, and the Annual Report to Shareholders for the year ending December 31, 2018.

In response to the February 12, 2019 letter from Public Utility Commission of Oregon staff, CDs containing the Excel version of the final pre-closing trial balance by FERC account on a total company basis will be sent via US mail. A CD containing the pdf version of the Annual Report to Shareholders and five hardcopies will also be mailed. Please note that NW Natural’s FERC Form 2, Oregon Supplement to FERC Form 2, and the Distribution of Salaries and Wages Schedule are not available in Excel format.

Please address any correspondence on this matter to me, with copies to Mr. Brody Wilson, Vice President, CAO, Controller & Treasurer, at the address above.

Sincerely,

/s/ Zachary Kravitz

Zachary Kravitz
Director, Rates & Regulatory Affairs

Attachments

NATURAL GAS COMPANIES
(Class A and B)

ANNUAL REPORT

OF

NORTHWEST NATURAL GAS COMPANY

(Exact Legal Name of Respondent)

If name was changed during year, show also the previous name and date of change

PORTLAND, OREGON

(Address of Principal Business Office at End of Year)

TO THE

PUBLIC UTILITY COMMISSION OF OREGON

AND

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

FOR THE

YEAR ENDED DECEMBER 31, 2018

Name, Title, and address of officer or other person to whom should be addressed any communication concerning this report:

Brody J. Wilson, Vice President, Chief Accounting Officer, Controller and Treasurer
220 N.W. Second Avenue
Portland, Oregon 97209

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THIS FILING IS
Item 1: <input checked="" type="checkbox"/> An Initial (Original OR <input type="checkbox"/> Resubmission No. _____ Submission)

Form 2 Approved
OMB No. 1902-0028
(Expires 12/31/2020)

Form 3-Q Approved
OMB No. 1902-0205
(Expires 12/31/2019)



FERC FINANCIAL REPORT

FERC FORM No. 2: Annual Report of Major Natural Gas Companies and Supplemental Form 3-Q: Quarterly Financial Report

<p>These reports are mandatory under the Natural Gas Act, Sections 10(a), and 16 and 18 CFR Parts 260.1 and 260.300. Failure to report may result in criminal fines, civil penalties, and other sanctions as provided by law. The Federal Energy Regulatory Commission does not consider these reports to be of a confidential nature.</p>
--

Exact Legal Name of Respondent (Company) NW NATURAL GAS COMPANY	Year/Period of Report End of 12/31/2018
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INSTRUCTIONS FOR FILING FERC FORMS 2, 2-A and 3-Q

GENERAL INFORMATION

I Purpose

FERC Forms 2, 2-A, and 3-Q are designed to collect financial and operational information from natural gas companies subject to the jurisdiction of the Federal Energy Regulatory Commission. These reports are also considered to be a non-confidential public use forms.

II. Who Must Submit

Each natural gas company whose combined gas transported or stored for a fee exceed 50 million dekatherms in each of the previous three years must submit FERC Form 2 and 3-Q.

Each natural gas company not meeting the filing threshold for FERC Form 2, but having total gas sales or volume transactions exceeding 200,000 dekatherms in each of the previous three calendar years must submit FERC Form 2-A and 3-Q.

Newly established entities must use projected data to determine whether they must file the FERC Form 3-Q and FERC Form 2 or 2-A.

III. What and Where to Submit

(a) Submit Forms 2, 2-A and 3-Q electronically through the submission software at <http://www.ferc.gov/docs-filing/eforms/form-2/elec-subm-soft.asp> .

(b) The Corporate Officer Certification must be submitted electronically as part of the FERC Form 2 and 3-Q filings.

(c) Submit immediately upon publication, by either eFiling or mailing two (2) copies to the Secretary of the Commission, the latest Annual Report to Stockholders and any annual financial or statistical report regularly prepared and distributed to bondholders, security analysts, or industry associations. Do not include monthly and quarterly reports. Indicate by checking the appropriate box on Form 2, Page 3, List of Schedules, if the reports to stockholders will be submitted or if no annual report to stockholders is prepared. Unless eFiling the Annual Report to Stockholders, mail these reports to the Secretary of the Commission at:

Secretary of the Commission
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

(d) For the Annual CPA certification, submit with the original submission of this form, a letter or report (not applicable to respondents classified as Class C or Class D prior to January 1, 1984) prepared in conformity with the current standards of reporting which will:

(i) Contain a paragraph attesting to the conformity, in all material respects, of the schedules listed below with the Commission's applicable Uniform Systems of Accounts (including applicable notes relating thereto and the Chief Accountant's published accounting releases), and

(ii) be signed by independent certified public accountants or an independent licensed public accountant certified or licensed by a regulatory authority of a State or other political subdivision of the U. S. (See 18 C.F.R. §§158.10-158.12 for specific qualifications.)

Reference	<u>Reference</u> <u>Schedules Pages</u>
Comparative Balance Sheet	110-113
Statement of Income	114-117
Statement of Retained Earnings	118-119
Statement of Cash Flows	120-121
Notes to Financial Statements	122-123

Filers should state in the letter or report, which, if any, of the pages above do not conform to the Commission's requirements. Describe the discrepancies that exist.

(e) Filers are encouraged to file their Annual Report to Stockholders, and the CPA Certification Statement using eFiling. To further that effort, new selections, "Annual Report to Stockholders" and "CPA Certification Statement," have been added to the dropdown "pick list" from which companies must choose when eFiling. Further instructions are found on the Commission website at <http://www.ferc.gov/help/how-to.asp>

(f) Federal, State and Local Governments and other authorized users may obtain additional blank copies of FERC Form 2 and 2-A free of charge from: <http://www.ferc.gov/docs-filing/eforms/form-2/form-2.pdf> and <http://www.ferc.gov/docs-filing/eforms/form-2a/form-2a.pdf>, respectively. Copies may also be obtained from the Public Reference and Files Maintenance Branch, Federal Energy Regulatory Commission, 888 First Street, NE, Room 2A, Washington, DC 20426 or by calling (202) 502-8371

IV. When to Submit:

FERC Forms 2, 2-A, and 3-Q must be filed by the dates:

- (a) FERC Form 2 and 2-A --- by April 18th of the following year (18 C.F.R. §§ 260.1 and 260.2)
- (b) FERC Form 3-Q --- Natural gas companies that file a FERC Form 2 must file the FERC Form 3-Q within 60 days after the reporting quarter (18 C.F.R. § 260.300), and
- (c) FERC Form 3-Q --- Natural gas companies that file a FERC Form 2-A must file the FERC Form 3-Q within 70 days after the reporting quarter (18 C.F.R. § 260.300).

V. Where to Send Comments on Public Reporting Burden.

The public reporting burden for the Form 2 collection of information is estimated to average 1,623 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data-needed, and completing and reviewing the collection of information. The public reporting burden for the Form 2A collection of information is estimated to average 250 hours per response. The public reporting burden for the Form 3-Q collection of information is estimated to average 165 hours per response.

Send comments regarding these burden estimates or any aspect of these collections of information, including suggestions for reducing burden, to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426 (Attention: Information Clearance Officer); and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (Attention: Desk Officer for the Federal Energy Regulatory Commission). No person shall be subject to any penalty if any collection of information does not display a valid control number (44 U.S.C. § 3512 (a)).

GENERAL INSTRUCTIONS

- I. Prepare all reports in conformity with the Uniform System of Accounts (USofA) (18 C.F.R. Part 201). Interpret all accounting words and phrases in accordance with the USofA.
- II. Enter in whole numbers (dollars or Dth) only, except where otherwise noted. (Enter cents for averages and figures per unit where cents are important. The truncating of cents is allowed except on the four basic financial statements where rounding is required.) The amounts shown on all supporting pages must agree with the amounts entered on the statements that they support. When applying thresholds to determine significance for reporting purposes, use for balance sheet accounts the balances at the end of the current reporting period, and use for statement of income accounts the current year's year to date amounts.
- III. Complete each question fully and accurately, even if it has been answered in a previous report. Enter the word "None" where it truly and completely states the fact.
- IV. For any page(s) that is not applicable to the respondent, omit the page(s) and enter "NA," "NONE," or "Not Applicable" in column (d) on the List of Schedules, pages 2 and 3.
- V. Enter the month, day, and year for all dates. Use customary abbreviations. **The "Date of Report" included in the header of each page is to be completed only for resubmissions.**
- VI. Generally, except for certain schedules, all numbers, whether they are expected to be debits or credits, must be reported as positive. Numbers having a sign that is different from the expected sign must be reported by enclosing the numbers in parentheses.
- VII. For any resubmissions, submit the electronic filing using the form submission only. Please explain the reason for the resubmission in a footnote to the data field.
- VIII. Footnote and further explain accounts or pages as necessary.
- IX. Do not make references to reports of previous periods/years or to other reports in lieu of required entries, except as specifically authorized.
- X. Wherever (schedule) pages refer to figures from a previous period/year, the figures reported must be based upon those shown by the report of the previous period/year, or an appropriate explanation given as to why the different figures were used.
- XI. Report all gas volumes in Dth unless the schedule specifically requires the reporting in another unit of measurement.

DEFINITIONS

- I. Btu per cubic foot -- The total heating value, expressed in Btu, produced by the combustion, at constant pressure, of the amount of the gas which would occupy a volume of 1 cubic foot at a temperature of 60°F if saturated with water vapor and under a pressure equivalent to that of 30°F, and under standard gravitational force (980.665 cm. per sec) with air of the same temperature and pressure as the gas, when the products of combustion are cooled to the initial temperature of gas and air when the water formed by combustion is condensed to the liquid state (called gross heating value or total heating value).
- II. Commission Authorization -- The authorization of the Federal Energy Regulatory Commission, or any other Commission. Name the commission whose authorization was obtained and give date of the authorization.
- III. Dekatherm -- A unit of heating value equivalent to 10 therms or 1,000,000 Btu.
- IV. Respondent -- The person, corporation, licensee, agency, authority, or other legal entity or instrumentality on whose behalf the report is made.

EXCERPTS FROM THE LAW (Natural Gas Act, 15 U.S.C. 717-717w)


"Sec. 10(a). Every natural-gas company shall file with the Commission such annual and other periodic or special reports as the Commission may by rules and regulations or order prescribe as necessary or appropriate to assist the Commission in the proper administration of this act. The Commission may prescribe the manner and form in which such reports shall be made and require from such natural-gas companies specific answers to all questions upon which the Commission may need information. The Commission may require that such reports include, among other things, full information as to assets and liabilities, capitalization, investment and reduction thereof, gross receipts, interest dues and paid, depreciation, amortization, and other reserves, cost of facilities, costs of maintenance and operation of facilities for the production, transportation, delivery, use, or sale of natural gas, costs of renewal and replacement of such facilities, transportation, delivery, use and sale of natural gas..."

"Section 16. The Commission shall have power to perform all and any acts, and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations as it may find necessary or appropriate to carry out the provisions of this act. Among other things, such rules and regulations may define accounting, technical, and trade terms used in this act; and may prescribe the form or forms of all statements declarations, applications, and reports to be filed with the Commission, the information which they shall contain, and time within they shall be filed..."

General Penalties

The Commission may assess up to \$1 million per day per violation of its rules and regulations. See NGA § 22(a), 15 U.S.C. § 717t-1(a).

**FERC FORM NO. 2:
ANNUAL REPORT OF MAJOR NATURAL GAS COMPANIES**

IDENTIFICATION		
01 Exact Legal Name of Respondent Northwest Natural Gas Company	02 Year of Report December 31, 2018	
03 Previous Name and Date of Change (If name changed during year)		
04 Address of Principal Office at End of Year (Street, City, State, Zip Code) 220 N.W. Second Avenue, Portland, Oregon 97209		
05 Name of Contact Person Brody J. Wilson	Title of Contact Person Vice President, Chief Accounting Officer, Controller and Treasurer	
07 Address of Contact Person (Street, City, State, Zip Code) 220 N.W. Second Avenue, Portland, Oregon 97209		
08 Telephone of Contact Person, Including Area Code (503) 226-4211	This Report Is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	10 Date of Report (Mo, Day, Yr) May 1, 2019
ANNUAL CORPORATE OFFICER CERTIFICATION		
<p>The undersigned officer certifies that:</p> <p>I have examined this report and to the best of my knowledge, information, and belief all statements of fact contained in this report are correct statements of the business affairs of the respondent and the financial statements, and other financial information contained in this report, conform in all material respects to the Uniform System of Accounts.</p>		
11 Name Brody J. Wilson	12 Title Vice President, Chief Accounting Officer, Controller and Treasurer	
13 Signature 	14 Date Signed (Mo, Day, Yr) April 30, 2019	
<p>Title 18, U.S.C. 1001, makes it a crime for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious or fraudulent statements as to any matter within its jurisdiction.</p>		

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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List of Schedules (Natural Gas Company)

Enter in Column (d) the terms "none", "not applicable", or "NA" as appropriate, where no information or amounts have been reported for certain pages. Omit pages where the responses are "none", "not applicable", or "NA".

Line No.	Title of Schedule (a)	Reference Page Number (b)	Date Revised (c)	Remarks (d)
GENERAL CORPORATE INFORMATION AND FINANCIAL STATEMENTS				
1	General Information	101		
2	Control Over Respondent	102		
3	Corporations Controlled by Respondent	103		
4	Security Holders and Voting Powers	107		
5	Important Changes During the Year	108		
6	Comparative Balance Sheet	110-113		
7	Statement of Income for the Year	114-116		
8	Statement of Accumulated Comprehensive Income and Hedging Activities	117		
9	Statement of Retained Earnings for the Year	118-119		
10	Statements of Cash Flows	120-121		
11	Notes to Financial Statements	122		
BALANCE SHEET SUPPORTING SCHEDULES (Assets and Other Debits)				
12	Summary of Utility Plant and Accumulated Provisions for Depreciation, Amortization, and Depletion	200-201		
13	Gas Plant in Service	204-209		
14	Gas Property and Capacity Leased from Others	212		
15	Gas Property and Capacity Leased to Others	213		NA
16	Gas Plant Held for Future Use	214		
17	Construction Work in Progress-Gas	216		
18	Non-Traditional Rate Treatment Afforded New Projects	217		NA
19	General Description of Construction Overhead Procedure	218		
20	Accumulated Provision for Depreciation of Gas Utility Plant	219		
21	Gas Stored	220		
22	Investments	222-223		
23	Investments in Subsidiary Companies	224-225		
24	Prepayments	230		
25	Extraordinary Property Losses	230		
26	Unrecovered Plant and Regulatory Study Costs	230		
27	Other Regulatory Assets	232		
28	Miscellaneous Deferred Debits	233		
29	Accumulated Deferred Income Taxes	234-235		
BALANCE SHEET SUPPORTING SCHEDULES (Liabilities and Other Credits)				
30	Capital Stock	250-251		
31	Capital Stock Subscribed, Capital Stock Liability for Conversion, Premium on Capital Stock, and Installments Received on Capital Stock	252		
32	Other Paid-in Capital	253		
33	Discount on Capital Stock	254		NA
34	Capital Stock Expense	254		
35	Securities issued or Assumed and Securities Refunded or Retired During the Year	255		
36	Long-Term Debt	256-257		
37	Unamortized Debt Expense, Premium, and Discount on Long-Term Debt	258-259		

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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List of Schedules (Natural Gas Company)

Enter in Column (d) the terms "none", "not applicable", or "NA" as appropriate, where no information or amounts have been reported for certain pages. Omit pages where the responses are "none", "not applicable", or "NA".

Line No.	Title of Schedule (a)	Reference Page Number (b)	Date Revised (c)	Remarks (d)
38	Unamortized Loss and Gain on Reacquired Debt	260		
39	Reconciliation of Reported Net Income with Taxable Income for Federal Income Taxes	261		
40	Taxes Accrued, Prepaid, and Charged During Year	262-263		
41	Miscellaneous Current and Accrued Liabilities	268		
42	Other Deferred Credits	269		
43	Accumulated Deferred Income Taxes-Other Property	274-275		NA
44	Accumulated Deferred Income Taxes-Other	276-277		
45	Other Regulatory Liabilities	278		
INCOME ACCOUNT SUPPORTING SCHEDULES				
46	Monthly Quantity & Revenue Data by Rate Schedule	299		NA
47	Gas Operating Revenues	300-301		
48	Revenues from Transportation of Gas of Others Through Gathering Facilities	302-303		NA
49	Revenues from Transportation of Gas of Others Through Transmission Facilities	304-305		NA
50	Revenues from Storage Gas of Others	306-307		NA
51	Other Gas Revenues	308		
52	Discounted Rate Services and Negotiated Rate Services	313		NA
53	Gas Operation and Maintenance Expenses	317-325		
54	Exchange and Imbalance Transactions	328		NA
55	Gas Used in Utility Operations	331		
56	Transmission and Compression of Gas by Others	332		NA
57	Other Gas Supply Expenses	334		NA
58	Miscellaneous General Expenses-Gas	335		
59	Depreciation, Depletion, and Amortization of Gas Plant	336-338		
60	Particulars Concerning Certain Income Deduction and Interest Charges Accounts	340		
COMMON SECTION				
61	Regulatory Commission Expenses	350-351		
62	Employee Pensions and Benefits (Account 926)	352		
63	Distribution of Salaries and Wages	354-355		
64	Charges for Outside Professional and Other Consultative Services	357		
65	Transactions with Associated (Affiliated) Companies	358		
GAS PLANT STATISTICAL DATA				
66	Compressor Stations	508-509		
67	Gas Storage Projects	512-513		
68	Transmission Lines	514		
69	Transmission System Peak Deliveries	518		NA
70	Auxiliary Peaking Facilities	519		
71	Gas Account-Natural Gas	520		
72	Shipper Supplied Gas for the Current Quarter	521		NA
73	System Map	522		NA
74	Footnote Reference	551		NA
75	Footnote Text	552		NA
76	Stockholder's Reports (check appropriate box)			

- Four copies will be submitted
 No annual report to stockholders is prepared

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GENERAL INFORMATION

1. Provide name and title of officer having custody of the general corporate books of account and address of office where the general corporate books are kept and address of office where any other corporate books of account are kept, if different from that where the general corporate books are kept.

Brody J. Wilson **Vice President, Chief Accounting Officer, Controller and Treasurer**
220 N.W. Second Avenue, Portland, Oregon 97209

2. Prove the name of the State under the laws of which respondent is incorporated and date of incorporation. If incorporated under a special law, give reference to such law. If not incorporated, state that fact and give the type of organization and the date organized.

State of Oregon **January 10, 1910**

3. If at any time during the year the property of respondent was held by a receiver or trustee, give (a) name of receiver or trustee, (b) date such receiver or trustee took possession, (c) the authority by which the receivership of trusteeship was created, and (d) date when possession by receiver or trustee ceased.

NOT APPLICABLE

4. State the classes of utility and other services furnished by respondent during the year in each State in which the respondent operated.

GAS SERVICE IN OREGON AND WASHINGTON

5. Have you engaged as the principal accountant to audit your financial statements an accountant who is not the principal accountant for your previous year's certified financial statements?

- (1) Yes...Enter the date when such independent account was initially engaged _____
- (2) No

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Control Over Respondent

1. Report in column (a) the names of all corporations, partnerships, business trusts, and similar organizations that directly, indirectly, or jointly held control (see page 103 for definition of control) over the respondent at the end of the year. If control is in a holding company organization, report in a footnote the chain of organization.

2. If control is held by trustees, state in a footnote the names of trustees, the names of beneficiaries for whom the trust is maintained, and the purpose of the trust.

3. In column (b) designate type of control over the respondent. Report an "M" if the company is the main parent or controlling company having ultimate control over the respondent. Otherwise, report a "D" for direct, an "I" for indirect, or a "J" for joint control.

Line No.	Company Name (a)*	Type of Control (b)	State of Incorporation (c)	Percent Voting Stock Owned (d)
1	Northwest Natural Holding Company	M	Oregon	100%
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* See Page 103 for details of organizational structure of Northwest Natural Holding Company and NW Natural Gas Company.

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
--	--	---------------------------------------	--

CORPORATIONS CONTROLLED BY RESPONDENT

- Report below the names of all corporations, business trusts, and similar organizations, controlled directly or indirectly by respondent at any time during the year. If control ceased prior to end of year, give particulars (details) in a footnote.
- If control was by other means than a direct holding of voting rights, state in a footnote the manner in which control was held, naming any intermediaries involved.
- If control was held jointly with one or more other interests, state the fact in a footnote and name the other interests.
- In column (b) designate type of control of the respondent as "D" for direct, an "I" for indirect, or a "J" for joint control.

DEFINITIONS

- See the Uniform System of Accounts for a definition of control.
- Direct control is that which is exercised without interposition of an intermediary.
- Indirect control is that which is exercised by the inter-position of an intermediary which exercises direct control.
- Joint control is that in which neither interest can effectively control or direct action without the consent of the other, as where the voting control is equally divided between two holders, or each party holds a veto power over the other. Joint control may exist by mutual agreement or understanding between two or more parties who together have control within the meaning of the definition of control in the Uniform System of Accounts, regardless of the relative voting rights of each party.

Line No.	Name of Company Controlled (a)*	Type of Control (b)	Kind of Business (c)	Percent Voting Stock Owned	Footnote Ref. (d)
1	Northwest Natural Holding Company	D	Holding company	100%	1
2	Gill Ranch Storage, LLC	I	Gas storage	100%	2
3	NW Natural Energy, LLC	D	Intermediate holding company	100%	3
4	NW Natural Gas Storage, LLC	I	Gas storage	100%	4
5	NNG Financial Corporation	D	Financing and investments	100%	5
6	Trail West Holdings, LLC	I/J	Intermediate holding company	50%	6
7	Trail West Pipeline, LLC	I/J	Gas transmission company	**	7
8	BL Credit Holdings, LLC	I/J	Non-operating company	**	8
9	Northwest Biogas, LLC	J	Biodigester company	50%	9
10	KB Pipeline Company	I	Gas transmission company	100%	10
11	Northwest Energy Corporation	D	Intermediate holding company	100%	11
12	Northwest Energy Sub Corporation	I	Non-operating company	100%	12
13	NWN Gas Reserves LLC	I	Gas reserves	100%	13
14	NWN Merger Sub, Inc.	I	Reorganization vehicle	100%	14
15	NW Natural Water Company, LLC	D	Holding company	100%	15
16	FWC Merger Sub, Inc.	I	Non-operating company	100%	16
17	Falls Water Co., Inc.	I	Water utility	100%	17
18	Cascadia Water, LLC	I	Water utility	100%	18

- * Effective October 1, 2018, Northwest Natural Gas Company ("NW Natural" or "NWN") completed a reorganization into a holding company structure (the "Reorganization"), as approved in 2017 by the Oregon Public Utilities Commission ("OPUC") pursuant to Order 17-526 and the Washington Utilities and Transportation Commission ("WUTC") pursuant to Order 01 of Docket UG-170094. More information about this restructuring has been submitted to the OPUC with respect to Docket UM 1804. To effect the Reorganization, NWN Merger Sub, Inc., a wholly owned subsidiary of Northwest Natural Holding Company ("NW Holdings"), was merged with and into NW Natural and each outstanding share of NW Natural common stock was converted into one share of NW Holdings common stock, so that the holders of NW Natural common stock would become holders of NW Holdings common stock and NW Natural became a wholly owned subsidiary of NW Holdings. Contemporaneously with the effective time of the merger, when NW Holdings became the sole holder of NW Natural common stock, NW Natural transferred to NW Holdings all outstanding equity interests of each of its subsidiaries other than Northwest Energy Corporation and that entity's subsidiary, NWN Gas Reserves LLC, which comprise part of the regulated gas utility business of NW Natural. All of the above designations with respect to type of control reflect NW Natural's control prior to the Reorganization.
- Prior to the effective time of the Reorganization, NW Holdings was a direct wholly-owned subsidiary of NW Natural, formed for the purposes of implementing the Reorganization.
 - Gill Ranch Storage, LLC, a wholly-owned subsidiary of NW Natural Gas Storage, LLC, was formed in 2007 as part of a joint project with Pacific Gas & Electric to develop, own and operate an underground natural gas storage facility near Fresno, California. Gill Ranch began commercial operations in 2010. On October 1, 2018, as a part of the Reorganization, NW Natural Energy, LLC, Gill Ranch's indirect parent entity, was transferred to NW Holdings and is no longer a subsidiary of the respondent.
 - NW Natural Energy, LLC, a wholly-owned subsidiary, is a holding company. Primarily used for gas storage and other non-utility investments. On October 1, 2018, as a part of the Reorganization, NW Natural Energy, LLC was transferred to NW Holdings and is no longer a subsidiary of the respondent.

Name of Respondent	This Report is:	Date of Report	Year of Report
Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

CORPORATIONS CONTROLLED BY RESPONDENT (CONTINUED)

4	NW Natural Gas Storage, LLC (NWNGS), a wholly-owned subsidiary of NW Natural Energy, LLC, primarily contains the operating employees for our gas storage businesses. On October 1, 2018, as a part of the Reorganization, NW Natural Energy, LLC, NWNGS's direct parent entity, was transferred to NW Holdings and is no longer a subsidiary of the respondent.
5	NNG Financial Corporation, a wholly-owned subsidiary, commenced operations in September 1990. NNG Financial Corporation's assets consist of an active wholly-owned subsidiary KB Pipeline Company. On October 1, 2018, as a part of the Reorganization, NNG Financial Corporation was transferred to NW Holdings and is no longer a subsidiary of the respondent.
6	Trail West Holdings, LLC (formerly Palomar Gas Holdings, LLC) a joint venture with TransCanada American Investments, Ltd. and 50% ownership subsidiary of NW Natural Energy, LLC, is designed to be the holding company for Trail West operating companies. On October 1, 2018, as a part of the Reorganization, NW Natural Energy, LLC was transferred to NW Holdings.
7	Trail West Pipeline, LLC (formerly Palomar Gas Transmission, LLC), wholly-owned by Trail West Holdings, LLC, was formed in 2007 to develop an interstate gas pipeline.
8	BL Credit Holdings, LLC, wholly-owned by Trail West Pipeline, LLC, is currently not operating.
9	Northwest Biogas, LLC, an equal joint venture with BEF Renewable Incorporated, was formed in 2008 to develop a biodigester. On October 1, 2018, as a part of the Reorganization, Northwest Biogas, LLC was transferred to NW Holdings and is no longer a subsidiary of the respondent.
10	KB Pipeline Company, a wholly-owned subsidiary of NNG Financial Corporation, owns a 10% interest in an interstate natural gas pipeline. On October 1, 2018, as a part of the Reorganization, NNG Financial Corporation, KB Pipeline Company's direct parent entity, was transferred to NW Holdings and is no longer a subsidiary of the respondent.
11	Northwest Energy Corporation, is a wholly-owned subsidiary, primarily used as a holding company of NWN Gas Reserves, LLC.
12	Northwest Energy Sub Corporation, was an inactive and indirect subsidiary. Articles of Dissolution were filed with respect to the Corporation on March 6, 2018.
13	NWN Gas Reserves LLC, a wholly-owned subsidiary of Northwest Energy Corporation, was formed in 2012 as part of a joint venture with Encana Oil & Gas (USA) Inc. to develop, own and operate gas reserves. In 2014, Encana Oil & Gas (USA) Inc. sold its interest in the gas reserves to Jonah Energy LLC.
14	NWN Merger Sub, Inc. was a wholly-owned subsidiary of NW Holdings formed as a non-operating merger vehicle for purposes of implementing the Reorganization. NWN Merger Sub was merged with and into NW Natural in the reorganization.
15	NW Natural Water Company, LLC ("NW Water"), a wholly-owned subsidiary, was formed in 2017 and is pursuing investments in the water sector itself and through its wholly-owned subsidiaries. On October 1, 2018, as a part of the Reorganization, NW Natural Water Company, LLC was transferred to NW Holdings and is no longer a subsidiary of the respondent.
16	FWC Merger Sub, Inc., a wholly-owned subsidiary of NW Natural Water Company, LLC was formed in 2017 as a non-operating merger subsidiary formed for the purpose of acting as a merger vehicle for the acquisition of Falls Water Co., Inc. The company was merged with and into Falls Water Co., Inc. on September 12, 2018.
17	Falls Water Co., Inc. is a water utility in Idaho acquired by NW Water through merger on September 12, 2018. On October 1, 2018, as a part of the Reorganization, NW Water, Falls Water Co., Inc.'s direct parent entity, was transferred to NW Holdings and is no longer a subsidiary of the respondent.
18	Cascadia Water, LLC is a subsidiary of NW Water and was formed in April 2018 to hold assets acquired from certain water utilities on Whidbey Island, Washington. On October 1, 2018, as a part of the Reorganization, NW Water, Cascadia Water, LLC's direct parent entity, was transferred to NW Holdings and is no longer a subsidiary of the respondent. The assets were successfully acquired in November 2018.
**	These companies are 100% owned indirectly through our joint venture Trail West Holdings, LLC. See individual footnotes regarding the transfer of subsidiaries from NW Natural to NW Holdings.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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SECURITY HOLDERS AND VOTING POWERS

1. Give the names and addresses of the 10 security holders of the respondent who, at the date of the latest closing of the stock book or compilation of list of stockholders of the respondent, prior to the end of the year, had the highest voting powers in the respondent, and state the number of votes which each would have had the right to cast on that date if a meeting were then in order. If any such holder held in trust, give in a footnote the known particulars of the trust (whether voting trust, etc.), duration of trust, and principal holders of beneficiary interests in the trust. If the stock book was not closed or a list of stock-holders was not compiled within one year prior to the end of the year, or if since the previous compilation of a list of stockholders, some other class of security has become vested with voting rights, then show such 10 security holders as of the close of the year. Arrange the names of the security holders in the order of voting power, commencing with the highest. Show in column (a) the titles of officers and directors included in such list of 10 security holders.

2. If any security other than stock carries voting rights, explain in a supplemental statement the circumstances whereby such security became vested with voting rights and give other important particulars (details) concerning the voting rights of such security. State whether voting rights are actual or contingent; if contingent, describe the contingency.

3. If any class or issue of security has any special privileges in the election of directors, trustees or managers, or in the determination of corporate action by any method, explain briefly in a footnote.

4. Furnish details concerning any options, warrants, or rights outstanding at the end of the year for others to purchase securities of the respondent or any securities or other assets owed by the respondent, including prices, expiration dates, and other material information relating to exercise of the options, warrants, or rights. Specify the amount of such securities or assets so entitled to be purchased by any officer, director, associated company, or any of the ten largest security holders. This instruction is inapplicable to convertible securities or to any securities substantially all of which are outstanding in the hands of the general public where the options, warrants, or rights were issued on a prorata basis.

1. Give date of the latest closing of the stock book prior to end of year, and, in a footnote, state the purpose of such closing: See note (1)	2. State the total number of votes cast at the latest general meeting prior to the end of year for election of directors of the respondent and number of such votes cast by proxy. Total: 21,013,769 By Proxy: 20,277,271	3. Give the date and place of such meeting: Date: 5/24/2018 Place: Portland, Oregon Location: Northwest Natural Gas Company Headquarters
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		VOTING SECURITIES			
		4. Number of votes as of (date):			
Line No.	Name (Title) and Address of Security Holder (a)	Total Votes (b)	Common Stock (c)	Preferred Stock (d)	Other (e)
5	TOTAL votes of all voting securities	100	100		
6	TOTAL number of security holders	1 ⁽¹⁾	1 ⁽¹⁾		
7	Special Privileges	See Note (2)	See Note (2)	Limited Voting Junior Preferred	
8					
9	See page 107 B				
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

(1) Effective October 1, 2018, NW Natural completed a reorganization into a holding company structure, as approved in 2017 by the Oregon Public Utilities Commission (OPUC) pursuant to Order 17-526 (Reorganization) and the Washington Utilities and Transportation Commission (WUTC) pursuant to Order 01 of Docket UG-170094. To effect the Reorganization, NWN Merger Sub, Inc., a wholly owned subsidiary of Northwest Natural Holding Company (NW Holdings), was merged with and into NW Natural and each outstanding share of NW Natural common stock as converted into one share of NW Holdings common stock and NW Natural became a wholly owned subsidiary of NW Holdings.

(2) In addition to the common stock, effective as of the Reorganization, NW Natural also has authorized, issued and outstanding, one share of Limited Voting Preferred Stock (Golden Share), \$1 par value, held by GSS Holdings (NWN), Inc. As specified in OPUC order 17-526, NW Natural is not entitled to file a voluntary petition for bankruptcy unless approved by the holder of the Golden Share, which must be an independent party. Except as provided in NW Natural's Amended and Restated Articles of Incorporation or as otherwise provided by law, the holder of the Golden Share has not voting rights for any other purpose.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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SECURITY HOLDERS AND VOTING POWERS (Continued)

Line No.	Name and Address (1a) (a)	Shares of Common Stock (b)	Percentage of Stock Outstanding (Voting Control) (c)
1	NW Natural Holding Company	100	100.00% ⁽¹⁾
2	220 NW Second Avenue		
3	Portland, OR 97209		
4			
5	Officers	Stock Options for Officers as of 12/31/18	Stock Rights for Officers as of 12/31/18
6	David H. Anderson	(1)	(1)
7	Frank H. Burkhartsmeyer	(1)	(1)
8	Lea Anne Doolittle	(1)	(1)
9	James R. Downing	(1)	(1)
10	Shawn M. Filippi	(1)	(1)
11	Kimberly A. Heiting	(1)	(1)
12	Jon G. Huddleston	(1)	(1)
13	Thomas J. Imeson	(1)	(1)
14	Justin Palfreyman	(1)	(1)
15	Melinda B. Rogers	(1)	(1)
16	Lori L. Russell	(1)	(1)
17	MardiLyn Saathoff	(1)	(1)
18	David A. Weber	(1)	(1)
19	Brody J. Wilson	(1)	(1)
20			
21	Directors		Stock Rights for Directors as of 12/31/18
22	Timothy P. Boyle		(1)
23	Martha "Stormy" L. Byorum		(1)
24	John D. Carter		(1)
25	Mark S. Dodson		(1)
26	C. Scott Gibson		(1)
27	Tod R. Hamachek		(1)
28	Jane L. Peverett		(1)
29	Kenneth Thrasher		(1)
30	Malia H. Wasson		(1)
31	Charles A. Wilhoite		(1)
32			
33			
34			
35			

(1) Effective October 1, 2018, NW Natural completed a reorganization into a holding company structure, as approved in 2017 by the Oregon Public Utilities Commission (OPUC) pursuant to Order 17-526 (Reorganization) and the Washington Utilities and Transportation Commission (WUTC) pursuant to Order 01 of Docket UG-170094. To effect the Reorganization, NWN Merger Sub, Inc., a wholly owned subsidiary of Northwest Natural Holding Company (NW Holdings), was merged with and into NW Natural and each outstanding share of NW Natural common stock as converted into one share of NW Holdings common stock and NW Natural became a wholly owned subsidiary of NW Holdings. As part of the Reorganization, all outstanding stock options and stock rights, including those held by officers and directors, were modified to relate to an equal number of shares of NW Holdings common stock, instead of common stock of NW Natural.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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IMPORTANT CHANGES DURING THE YEAR

Give details concerning the matters indicated below. Make the statements explicit and precise, and number them in accordance with the inquiries. Answer each inquiry. Enter "none" or "not applicable" where applicable. If the answer is given elsewhere in the report, refer to the schedule in which it appears.

1. Changes in and important additions to franchise rights: Describe the actual consideration and state from whom the franchise rights were acquired. If the franchise rights were acquired without the payment of consideration, state that fact.
 2. Acquisition of ownership in other companies by reorganization, merger, or consolidation with other companies: Give names of companies involved, particulars concerning the transactions, name of the Commission authorizing the transaction, and reference to Commission authorization.
 3. Purchase or sale of an operating unit or system: Briefly describe the property, and the related transactions, and cite Commission authorization, if any was required. Give date journal entries called for by Uniform Systems of Accounts were submitted to the Commission.
 4. Important leaseholds (other than leaseholds for natural gas lands) that have been acquired or given, assigned or surrendered: Give effective dates, lengths of terms, names of parties, rents, and other conditions. State name of Commission authorizing lease and give reference to such authorization.
 5. Important extension or reduction or transmission or distribution system: State territory added or relinquished and date operations began or ceased and cite Commission authorization, if any was required. State also the approximate number of customers added or lost and approximate annual revenues of each class of service.
- Each natural gas company must also state major new continuing sources of gas made available to it from purchases, development, purchase contract or otherwise, giving location and approximate total gas volumes available, period of contracts, and other parties to any such arrangements, etc.
6. Obligations incurred or assumed by respondent as guarantor for the performance by another of any agreement or obligation, including ordinary commercial paper maturing on demand or not later than one year after date of obligation. Cite commission authorization if any was required.
 7. Changes in articles of incorporation or amendments to charter: Explain the nature and purpose of such changes or amendments.
 8. State the estimated annual effect and nature of any important wage scale changes during the year.
 9. State briefly the status of any materially important legal proceedings pending at the end of the year, and the results of any such proceedings
 10. Describe briefly any materially important transactions of the respondent not disclosed elsewhere in this report in which an officer, director, security holder, voting trustee, associated company or know associate of any of these persons was a party or in which any such person had a material interest.
 11. Estimated increase or decrease in annual revenues caused by important rate changes: State effective date and approximate amount of increase or decrease for each revenue classification. State the number of customers affected.
 12. Describe fully any changes in officers, directors, major security holders and voting powers of the respondent that may have occurred during the reporting period.
 13. In the event that the respondent participates in a cash management program(s) and its proprietary capital ratio is less than 30 percent please describe the significant events or transactions causing the proprietary capital ratio to be less than 30 percent, and the extent to which the respondent has amounts loaned or money advanced to its parent, subsidiary, or affiliated companies through a cash management program(s). Additionally, please describe plans, if any to regain at least a 30 percent proprietary ratio.

See Page 108 B

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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IMPORTANT CHANGES DURING THE YEAR (Continued)

1. None
2. Effective October 1, 2018, Northwest Natural Gas Company ("NW Natural" or "NWN") completed a reorganization into a holding company structure, as approved in 2017 by the Oregon Public Utilities Commission ("OPUC") pursuant to Order 17-526 (the "Reorganization") and the Washington Utilities and Transportation Commission ("WUTC") pursuant to Order 01 of Docket UG-170094. More information about this restructuring has been submitted to the OPUC with respect to Docket UM 1804. To effect the Reorganization, NWN Merger Sub, Inc., a wholly owned subsidiary of Northwest Natural Holding Company ("NW Holdings"), was merged with and into NW Natural.
3. None
4. None
5. Reference to the 2018 Integrated Resource Plan that covers fiscal years 2018 and 2019 and the Gas Utility New Construction Budget for 2018 submitted to the OPUC and Washington Utility and Transportation Commission ("WUTC").
6. None
7. Effective October 1, 2018, Northwest Natural Gas Company ("NW Natural" or "NWN") completed a reorganization into a holding company structure, as approved in 2017 by the Oregon Public Utilities Commission ("OPUC") pursuant to Order 17-526 (the "Reorganization") and the Washington Utilities and Transportation Commission ("WUTC") pursuant to Order 01 of Docket UG-170094. More information about this restructuring has been submitted to the OPUC with respect to Docket UM 1804. To effect the Reorganization, NWN Merger Sub, Inc., a wholly owned subsidiary of Northwest Natural Holding Company ("NW Holdings"), was merged with and into NW Natural, and each outstanding share of NW Natural common stock was converted into one share of NW Holdings common stock, so that the holders of NW Natural common stock would become holders of NW Holdings common stock and NW Natural became a wholly owned subsidiary of NW Holdings. As part of the Reorganization, the Articles of Incorporation of NW Natural were amended and restated to, among other changes:
 - Provide for 1 share of Limited Voting Junior Preferred Stock, \$1 par value ("Preferred Stock"), as required by Order 17-526. As set forth in Order 17-526, this share of Preferred Stock must be in the custody of an independent third-party, and in matters of voluntary bankruptcy, this share will override all other outstanding shares of all types or classes of stock;
 - Allow for certain actions to be taken written consent of the sole shareholder; and
 - Remove certain provisions that are no longer applicable in the context of an entity that is a wholly owned subsidiary.
8. Bargaining unit employee pay increase of 3.00% effective December 1, 2018.
Non-bargaining unit employee annual salary increase of approximately 3.28% effective March 1, 2018.
9. Reference is made to NOTE 16 - Commitment and Contingencies and NOTE 17 - Environmental Matters of the Notes to the Financial Statements, beginning on Page 122-A.
10. The below describes certain transactions of the respondent since January 1, 2018 in which an officer, director, security holder, voting trustee, associated company or known associate of any of these persons was a party or in which such person had a material interest. However, the below transactions are not materially important transactions of the respondent and the below response is not to be construed as an indication that the respondent deems such transactions as materially important.

Ted Smart, the husband of Lea Anne Doolittle, who retired as Senior Vice President and Chief Administrative Officer of NW Natural effective December 31, 2018, has been an employee of NW Natural since February 2006. In November 2006, Mr. Smart moved from his position as a senior auditor to purchasing manager. Ms. Doolittle was not involved in decisions regarding Mr. Smart's hiring, promotion or compensation. Compensation paid to Mr. Smart in 2018 was approximately \$165,000 and is expected to be approximately \$118,000 in 2019. Mr. Smart reports to the Senior Vice President and Chief Financial Officer. Compensation paid to Mr. Smart is reviewed periodically by the Audit Committee in accordance with our Transactions with Related Persons Policy.

Ms. Shawn M. Filippi, Vice President, Chief Compliance Officer and Corporate Secretary, is married to a Co-Managing Partner of the Portland office of Stoel Rives LLP. For many years prior to Ms. Filippi's employment at NW Natural, NW Natural engaged the law firm Stoel Rives LLP as outside legal counsel. The Company continues to engage Stoel Rives LLP from time to time, and intends to do so in the future. Total fees paid to Stoel Rives LLP in 2018 were approximately \$1,840,000. Ms. Filippi's husband is not compensated by Stoel Rives LLP based on work performed for the Company and does not routinely work on Company matters. Furthermore, his interest is less than 1% of Stoel Rives' partnership allocation and the annual fees paid by the Company to Stoel Rives LLP in 2018 represented less than 1% of Stoel Rives LLP's annual gross revenues.

Reference to FERC Form No. 2 page 358 Transactions with Associated (Affiliated) Companies.
11. **Increase or decrease in annual revenues caused by important rate changes:**
OREGON

The first phase of the Oregon general rate case, the PGA, and other related filings became effective on November 1, 2018. The outcome of the first phase of the Oregon rate case, the PGA, and other related filings had the largest impact to customer rates and company revenues. The approval of all filings effective November 1, 2018 decreased the Company's annual Oregon revenues by \$10.2 million, or 1.53 percent, passing through certain purchased gas cost adjustments, and technical adjustments amortizing the Company's deferred revenue and gas costs with offsetting revenue increases from the Company's Oregon general rate case. As of June 30, 2018, 659,620 customers were affected.

The Company's requests for reauthorization of deferred accounting in UM 1496 and UM 1027 were filed in late October and are currently pending for approval.

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Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

OREGON RATE CASE

2017 General Rate Case

In March 2018, NW Natural made supplemental filings in the rate case to incorporate the effect of the Tax Cuts and Jobs Act (TCJA) on future rates. As a result, NW Natural's requested annual revenue requirement increase was \$25.7 million, or approximately a 4% increase, after an adjustment for its conservation tariff deferral. Also in March 2018, NW Natural made a supplemental filing to incorporate into the rate case the open proceeding regarding NW Natural's interstate storage and asset management arrangements to address matters raised in the cost study completed by a third party.

On October 26, 2018, the OPUC issued an order in the NW Natural rate case (Order) adopting the First Settlement, adopting in part and rejecting in part the Second Settlement, and deciding the remaining issue related to asset management sharing. The Order provides for a total revenue requirement increase of \$23.4 million, or 3.72%, over revenue from existing rates, which include approximately \$12.1 million that would otherwise be recovered under the conservation tariff deferral. The revenue requirement is based on the following:

- capital structure of 50% debt and 50% equity;
- return on equity of 9.4%;
- cost of capital of 7.317%; and
- rate base of \$1.186 billion, or an increase of \$300 million since the last rate case in 2012.

The Order adopted two components of the Second Settlement and rejected the remainder. First, the Order freezes NW Natural's pension balancing account as of October 31, 2018. Second, beginning on November 1, 2018, NW Natural is authorized to increase the amount of FAS 87 pension expense included in base rates by \$8.1 million. The Order directs NW Natural and the other parties to the rate case to engage in further regulatory proceedings to resolve open issues with respect to the recovery of the pension balancing account, and treatment of the 10-month deferral period benefits associated with the TCJA by no later than February 1, 2019. NW Natural expects these proceedings to also determine the appropriateness of NW Natural's remeasurement of the regulated utility historical excess deferred income taxes pursuant to TCJA and the return of these excess historical deferred income taxes to customers directly or by using them for the customers' benefit. Finally, the Order directs NW Natural to share 90% of benefits from the customer-owned portion of its Mist storage facility and other asset management activities with customers, with optimization manager fees shared proportionally. Previously 67% of these asset management amounts were shared with customers.

WASHINGTON

The new rates for the PGA and energy efficiency filings were allowed to go into effect, by operation of law, for service on and after November 1, 2018 at the WUTC Open Meeting held on October 19, 2018. The PGA filing revised rates for changes in purchased gas costs, and, both the PGA and energy efficiency filings updated temporary rate adjustments to amortize balances in deferred accounts. The combined effects of these filings decreased the Company's annual Washington revenues by \$4.5 million, or 6.56 percent. As of June 30, 2018, 83,033 customers were affected.

WASHINGTON RATE CASE

2018 General Rate Case

On December 31, 2018, Northwest Natural Gas Company (NW Natural), for the first time in a decade, has filed for a general rate increase with the Washington Utilities and Transportation Commission (WUTC). Approximately 84,000 or 11% of NW Natural's customers are in, and approximately 10% of NW Natural's revenues are derived from, Washington. The remainder of customers and revenues are in Oregon. The filing includes a requested base rate increase of 12.6% or an \$8.3 million increase in annual revenue requirement before accounting for the effects of returning federal tax reform benefits to customers. The revenue requirement is based upon the following assumptions or requests:

- Capital structure of 49.5% long-term debt, 1.0% short-term debt, and 49.5% common equity;
- Return on equity of 10.3%;
- Cost of capital of 7.62%; and
- Rate base of \$186.5 million, an increase of \$58.7 million since the last rate case.

The filing also includes a proposal to return federal tax reform benefits to customers related to the Tax Cuts and Jobs Act (TCJA). NW Natural estimates the total liability for tax reform benefits allocated to Washington customers to be approximately \$20.2 million related to TCJA, which is comprised of a historical deferred liability of \$18.1 million primarily related to property, plant, and equipment and an expected \$2.1 million associated with interim tax benefits accumulating from January 1, 2018 to November 30, 2019. NW Natural is requesting that the \$18.1 million historical deferral be credited to rates in compliance with TCJA guidance, which is currently at a rate of approximately \$0.5 million annually for the first five years, and which would be reviewed and adjusted in year five for the next five years. NW Natural is requesting that the interim \$2.1 million tax benefit be returned to customers over two years.

12. Effective January 1, 2018 Kimberley A. Heiting was appointed Senior Vice President, Communications and Chief Marketing Officer. Effective March 31, 2018 Ms. Heiting became Senior Vice President, Operations and Chief Marketing Officer. Effective March 31, 2018 Grant Yoshihara retired as Senior Vice President, Utility Operations. Effective March 31, 2018 Jon G. Huddleston was appointed Vice President, Engineering and Utility Operations. Effective August 1, 2018 Charles A. Wilhoite was appointed to the Board of Directors of NW Natural. Effective August 1, 2018 Melinda B. Rogers was appointed Vice President and Chief Human Resources and Diversity Officer. Effective October 2, 2018 Steven E. Wynne was appointed to the Board of Directors of NW Natural. Effective December 31, 2018 Lea Anne Doolittle retired as Senior Vice President and Chief Administrative Officer.
13. Not Applicable

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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COMPARATIVE BALANCE SHEET (ASSETS AND OTHER DEBITS)				
Line No.	Title of Account (a)	Reference Page Number (b)	Current Year End of Quarter/Balance Year (c)	Prior Year End Balance 12/31/2017 (d)
1	UTILITY PLANT			
2	Utility Plant (101-106, 114)	200-201	3,116,789,556	2,956,728,775
3	Construction Work in Progress (107)	200-201	204,978,959	159,923,802
4	TOTAL Utility Plant (Total of lines 2 and 3)	200-201	3,321,768,515	3,116,652,577
5	(Less) Accum. Prov. for Depr. Amort. Depl. (108, 111, 115)	200-201	(1,353,446,498)	(1,302,494,942)
6	Net Utility Plant (Total of line 4 less 5)	—	1,968,322,017	1,814,157,635
7	Nuclear Fuel (120.1-120.4, 120.6)	—	—	—
8	(Less) Accum. Prov. for Amort. of Nucl. Fuel Assemblies (120.5)	—	—	—
9	Net Nuclear Fuel (Total of line 7 less 8)	—	—	—
10	Net Utility Plant (Total of lines 6 and 9)	—	1,968,322,017	1,814,157,635
11	Utility Plant Adjustments (116)	—	—	—
12	Gas Stored-Base Gas (117.1)	220	18,494,189	18,488,587
13	System Balancing Gas (117.2)	220	—	—
14	Gas Stored in Reservoirs and Pipelines-Noncurrent (117.3)	220	—	—
15	Gas Owned to System Gas (117.4)	220	—	—
16	OTHER PROPERTY AND INVESTMENTS			
17	Nonutility Property (121)	204-209	71,338,418	69,119,165
18	(Less) Accum. Prov. for Depreciation and Amortization (122)	219	(20,013,772)	(18,719,439)
19	Investments in Associated Companies (123)	222-223	—	—
20	Investment in Subsidiary Companies (123.1)	224-225	105,582,148	152,179,432
21	(For Cost of Account 123.1, See Footnote Page 224, line 40)	—	—	—
22	Noncurrent Portion of Allowances	—	—	—
23	Other Investments (124)	222-223	49,921,908	52,653,735
24	Sinking Funds (125)	—	—	—
25	Depreciation Fund (126)	—	—	—
26	Amortization Fund - Federal (127)	—	—	—
27	Other Special Funds (128)	—	—	—
28	Long-Term Portion of Derivative Assets (175)	—	725,000	1,306,000
29	Long-Term Portion of Derivative Assets - Hedges (176)	—	—	—
30	TOTAL Other Property and Investments (Total of lines 17-20, 22-29)	—	207,553,702	256,538,893
31	CURRENT AND ACCRUED ASSETS			
32	Cash (131)	—	2,875,276	700,753
33	Special Deposits (132-134)	—	4,850,774	1,930,838
34	Working Funds (135)	—	204,200	210,200
35	Temporary Cash Investments (136)	222-223	2,273,382	2,574,132
36	Notes Receivable (141)	—	—	—
37	Customer Accounts Receivable (142)	—	58,209,024	58,685,488
38	Other Accounts Receivable (143)	—	6,148,203	6,242,775
39	(Less) Accum. Prov. for Uncollectible Accounts-Credit (144)	—	(975,367)	(955,630)
40	Notes Receivable from Associated Companies (145)	—	—	—
41	Accounts Receivable from Associated Companies (146)	—	542,109	223,899
42	Fuel Stock (151)	—	—	—
43	Fuel Stock Expense Undistributed (152)	—	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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COMPARATIVE BALANCE SHEET (ASSETS AND OTHER DEBITS)

Line No.	Title of Account (a)	Reference Page Number (b)	Current Year End of Quarter/Balance Year (c)	Prior Year End Balance 12/31/2017 (d)
44	Residuals (Elec) and Extracted Products (Gas) (153)	—	—	—
45	Plant Material and Operating Supplies (154)	—	13,381,651	10,064,217
46	Merchandise (155)	—	879,463	863,669
47	Other Material and Supplies (156)	—	—	—
48	Nuclear Materials Held for Sale (157)	—	—	—
49	Allowances (158.1 and 158.2)	—	—	—
50	(Less) Noncurrent Portion of Allowances	—	—	—
51	Stores Expenses Undistributed (163)	—	—	—
52	Gas Stored Underground - Current (164.1)	220	26,164,527	32,907,852
53	Liq. Natural Gas Stored and Held for Processing (164.2-164.3)	220	3,700,596	3,741,745
54	Prepayments (165)	230	27,719,997	23,958,674
55	Advances for Gas (166-167)	—	—	—
56	Interest and Dividends Receivable (171)	—	—	—
57	Rents Receivable (172)	—	—	—
58	Accrued Utility Revenues (173)	—	57,773,088	62,380,896
59	Miscellaneous Current and Accrued Assets (174)	—	4,015,983	2,108,594
60	Derivative Instrument Assets (175)	—	9,726,000	3,041,000
61	(Less) Long-Term Portion of Derivative Instrument Assets (175)	—	(725,000)	(1,306,000)
62	Derivative Instrument Assets - Hedges (176)	—	—	—
63	(Less) Long-Term Portion of Derivative Instrument Assets - Hedges (176)	—	—	—
64	TOTAL Current and Accrued Assets (Total of lines 32 thru 63)	—	216,763,906	207,373,102
65	DEFERRED DEBITS			
66	Unamortized Debt Expense (181)	259	6,859,484	7,172,109
67	Extraordinary Property Losses (182.1)	230	—	—
68	Unrecovered Plant and Regulatory Study Costs (182.2)	230	—	—
69	Other Regulatory Assets (182.3)	232	21,402,172	22,208,524
70	Prelim. Survey and Investigation Charges (Electric) (183)	—	—	—
71	Prelim. Survey and Invest. Charges (Gas) (183.1, 183.2)	—	309,011	351,235
72	Clearing Accounts (184)	—	398,385	237,192
73	Temporary Facilities (185)	—	—	—
74	Miscellaneous Deferred Debits (186)	233	389,388,768	379,132,163
75	Def. Losses from Disposition of Utility Plant (187)	—	—	—
76	Research, Devel. and Demonstration Expend. (188)	—	—	—
77	Unamortized Loss on Reacquired Debt (189)	260	1,808,092	2,117,564
78	Accumulated Deferred Income Taxes (190)	234-235	—	—
79	Unrecovered Purchased Gas Costs (191)	—	(4,864,721)	(19,277,807)
80	Total Deferred Debits (Total of lines 66 thru 79)		415,301,191	391,940,980
81	Total Assets and Other Debits (Total of lines 10-15, 30, 64, and 80)		2,826,435,005	2,688,499,197

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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COMPARATIVE BALANCE SHEET (LIABILITIES AND OTHER CREDITS)				
Line No.	Title of Account (a)	Reference Page Number (b)	Current Year End of Quarter/Balance Year (c)	Prior Year End Balance 12/31/2017 (d)
1	PROPRIETARY CAPITAL			
2	Common Stock Issued (201)	250-251	228,868,409	451,282,098
3	Preferred Stock Issued (204)	250-251	—	—
4	Capital Stock Subscribed (202, 205)	252	—	—
5	Stock Liability for Conversion (203, 206)	252	—	—
6	Premium on Capital Stock (207)	252	—	—
7	Other Paid-In Capital (208-211)	253	1,649,864	1,649,864
8	Installments Received on Capital Stock (212)	252	51,579	51,283
9	(Less) Discount on Capital Stock (213)	254	—	—
10	(Less) Capital Stock Expense (214)	254	(4,118,163)	(4,118,163)
11	Retained Earnings (215, 215.1, 216)	118-119	500,860,482	472,303,081
12	Unappropriated Undistributed Subsidiary Earnings (216.1)	118-119	—	(167,041,082)
13	(Less) Reacquired Capital Stock (217)	250-251	—	—
14	Accumulated Other Comprehensive Income (219)	117	(7,187,559)	(8,437,839)
15	TOTAL Proprietary Capital (Total of lines 2 thru 14)	—	720,124,612	745,689,242
16	LONG-TERM DEBT			
17	Bonds (221)	256-257	739,700,000	786,700,000
18	(Less) Reacquired Bonds (222)	256-257	—	—
19	Advances from Associated Companies (223)	256-257	—	—
20	Other Long-Term Debt (224)	256-257	—	—
21	Unamortized Premium on Long-Term Debt (225)	258-259	—	—
22	(Less) Unamortized Discount on Long-Term Debt-Dr. (226)	258-259	—	—
23	(Less) Current Portion of Long-Term Debt	256	(30,000,000)	(97,000,000)
24	TOTAL Long-Term Debt (Total of lines 17 thru 23)	256	709,700,000	689,700,000
25	OTHER NONCURRENT LIABILITIES			
26	Obligations Under Capital Leases - Noncurrent (227)	—	—	—
27	Accumulated Provision for Property Insurance (228.1)	—	49,000	154,000
28	Accumulated Provision for Injuries and Damages (228.2)	—	97,813,193	110,501,943
29	Accumulated Provision for Pensions and Benefits (228.3)	—	243,230,414	244,476,672
30	Accumulated Miscellaneous Operating Provisions (228.4)	—	—	—
31	Accumulated Provision for Rate Refunds (229)	—	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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COMPARATIVE BALANCE SHEET (LIABILITIES AND OTHER CREDITS)

Line No.	Title of Account (a)	Reference Page Number (b)	Current Year End of Quarter/Balance Year (c)	Prior Year End Balance 12/31/2017 (d)
32	Long-Term Portion of Derivative Instrument Liabilities	—	3,025,000	4,649,000
33	Long-Term Portion of Derivative Instrument Liabilities - Hedges	—	—	—
34	Asset Retirement Obligations (230)	—	—	—
35	TOTAL Other Noncurrent Liabilities (Total of lines 26 thru 34)	—	344,117,607	359,781,615
36	CURRENT AND ACCRUED LIABILITIES			
37	Current Portion of Long-term Debt	256	30,000,000	97,000,000
38	Notes Payable (231)	—	217,500,000	54,199,996
39	Accounts Payable (232)	—	113,505,529	108,414,210
40	Notes Payable to Associated Companies (233)	—	—	—
41	Accounts Payable to Associated Companies (234)	—	20,521,744	22,115,481
42	Customer Deposits (235)	—	4,994,176	5,087,361
43	Taxes Accrued (236)	262-263	10,989,713	18,843,587
44	Interest Accrued (237)	—	7,272,799	6,773,318
45	Dividends Declared (238)	—	—	—
46	Matured Long-Term Debt (239)	—	—	—
47	Matured Interest (240)	—	—	—
48	Tax Collections Payable (241)	—	5,681,850	5,779,961
49	Miscellaneous Current and Accrued Liabilities (242)	268	39,688,332	26,390,275
50	Obligations Under Capital Leases-Current (243)	—	—	—
51	Derivative Instrument Liabilities (244)	—	15,406,000	23,371,000
52	(Less) Long-Term Portion of Derivative Instrument Liabilities	—	(3,025,000)	(4,649,000)
53	Derivative Instrument Liabilities - Hedges (245)	—	—	—
54	(Less) Long-Term Portion of Derivative Instrument Liabilities - Hedges	—	—	—
55	TOTAL Current and Accrued Liabilities (Total of lines 37 thru 54)	—	462,535,143	363,326,189
56	DEFERRED CREDITS			
57	Customer Advances for Construction (252)	—	4,410,555	3,965,149
58	Accumulated Deferred Investment Tax Credits (255)	—	2	2
59	Deferred Gains from Disposition of Utility Plant (256)	—	—	—
60	Other Deferred Credits (253)	269	32,686,031	7,323,027
61	Other Regulatory Liabilities (254)	278	253,954,660	230,410,020
62	Unamortized Gain on Reacquired Debt (257)	260	—	—
63	Accumulated Deferred Income Taxes - Accelerated Amortization (281)	—	—	—
64	Accumulated Deferred Income Taxes - Other Property (282)	—	—	—
65	Accumulated Deferred Income Taxes - Other (283)	276-277	298,906,395	288,303,953
66	TOTAL Deferred Credits (Total of lines 57 thru 65)	—	589,957,643	530,002,151
67	TOTAL Liabilities and Other Credits (Total of lines 15, 24, 35, 55 and 66)	—	2,826,435,005	2,688,499,197

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATEMENT OF INCOME FOR THE YEAR

1. Report amounts for accounts 412 and 413, Revenue and Expenses from Utility Plant Leased to Others, in another utility column (i,j) in a similar manner to a utility department. Spread the amount(s) over lines 2 thru 26 as appropriate. Include these amounts in columns (c) and (d) totals.
2. Report amounts in account 414, Other Utility Operating Income, in the same manner as accounts 412 and 413 above.
3. Report data for lines 8, 10, and 11 for Natural Gas companies using accounts 404.1, 404.2, 404.3, 407.1, and 407.2.

Line No.	Account (a)	(Ref.) Page No. (b)	Total Current Year (in dollars) (c)	Total Previous Year (in dollars) (d)	Current Three Months Ended Quarterly Only No Fourth Quarter (e)	Prior Three Months Ended Quarterly Only No Fourth Quarter (f)
1	UTILITY OPERATING INCOME					
2	Gas Operating Revenues (400)	300-301	667,434,653	752,010,969		
3	Operating Expenses	—				
4	Operation Expenses (401)	320-325	399,875,625	460,647,011		
5	Maintenance Expenses (402)	320-325	17,251,204	16,002,925		
6	Depreciation Expense (403)	336-338	83,732,032	79,733,795		
7	Depreciation Expense for Asset Retirement Costs (403.1)	—	—	—		
8	Amort. & Depl. of Utility Plant (404-405)	336-338	—	—		
9	Amort. of Utility Plant Acu. Adjustment (406)	336-338	—	—		
10	Amort of Prop. Losses, Unrecovered Plant and Regulatory Study Costs (407.1)	—	—	—		
11	Amort. of Conversion Expenses (407.2)	—	—	—		
12	Regulatory Debits (407.3)	—	11,127,377	15,291,409		
13	(Less) Regulatory Credits (407.4)	—	—	—		
14	Taxes Other Than Income Taxes (408.1)	262-263	48,709,075	49,004,406		
15	Income Taxes - Federal (409.1)	262-263	6,512,869	16,162,896		
16	Income Taxes - Other (409.1)	262-263	2,927,402	5,290,475		
17	Provision for Deferred Income Taxes (410.1)	276-277	37,215,916	58,229,567		
18	(Less) Provision for Deferred Income Taxes-Cr. (411.1)	276-277	26,037,795	38,750,782		
19	Investment Tax Credit Adj. - Net (411.4)	—	—	(3,981)		
20	(Less) Gains from Disp. of Utility Plant (411.6)	—	—	—		
21	Losses from Disp. of Utility Plant (411.7)	—	—	—		
22	(Less) Gains from Disposition of Allowances (411.8)	—	—	—		
23	Losses from Disposition of Allowances (411.9)	—	—	—		
24	Accretion Expense (411.10)	—	—	—		
25	TOTAL Utility Operating Expenses (Total of lines 4 thru 24)	—	581,313,705	661,607,721		
26	Net Utility Operating income (Enter Total of line 2 less 25) (Carry forward to page 116, line 27)	—	86,120,948	90,403,248		

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATEMENT OF INCOME FOR THE YEAR

4. Explain in a footnote if the previous year's figures are different from that reported in prior reports.
5. If the columns are insufficient for reporting additional utility departments, supply the appropriate account titles, line 2 to 23 and report the information in the blank space on page 122 or in a supplemental statement.

Elec. Utility Total Current Year (in dollars) (g)	Elec. Utility Total Previous Year (in dollars) (h)	Gas Utility Total Current Year (in dollars) (i)	Gas Utility Total Previous Year (in dollars) (j)	Other Utility Total Current Year (in dollars) (k)	Other Utility Total Previous Year (in dollars) (l)	Line No.
						1
		667,434,653	752,010,969			2
						3
		399,875,625	460,647,011			4
		17,251,204	16,002,925			5
		83,732,032	79,733,795			6
		—	—			7
		—	—			8
		—	—			9
		—	—			10
		—	—			11
		11,127,377	15,291,409			12
		—	—			13
		48,709,075	49,004,406			14
		6,512,869	16,162,896			15
		2,927,402	5,290,475			16
		37,215,916	58,229,567			17
		26,037,795	38,750,782			18
		—	(3,981)			19
		—	—			20
		—	—			21
		—	—			22
		—	—			23
		—	—			24
		581,313,705	661,607,721			25
		86,120,948	90,403,248			26

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STATEMENT OF INCOME (Continued)

Line No.	Title of Account (a)	Ref. Page No. (b)	Total Current Year To Date Balance for Quarter/Year (c)	Total Current Year To Date Balance for Quarter/Year (d)	Current Three Months Ended Quarterly Only No Fourth Quarter (e)	Prior Three Months Ended Quarterly Only No Fourth Quarter (f)
27	Net Utility Operating Income (Carried forward from page 114)	—	86,120,948	90,403,248		
28	Other Income and Deductions					
29	Other Income					
30	Nonutility Operating Income					
31	Revenues From Merch, Jobbing and Contract Work (415)	—	5,631,537	5,641,506		
32	(Less) Costs and Exp. of Merch, Job & Contract Work (416)	—	5,483,291	5,492,608		
33	Revenues From Nonutility Operations (417)	—	37,537,508	29,937,459		
34	(Less) Expenses of Nonutility Operations (417.1)	—	20,496,890	15,525,969		
35	Nonoperating Rental Income (418)	—	1,122,624	430,848		
36	Equity in Earnings of Subsidiary Companies (418.1)	119	(1,723,137)	(127,342,693)		
37	Interest and Dividend Income (419)	—	3,962,217	3,932,693		
38	Allow. for Other Funds Used During Constr (419.1)	—	3,964,151	2,601,368		
39	Miscellaneous Nonoperating Income (421)	—	159,048	42,438		
40	Gain on disposition of Property (421.1)	—	—	—		
41	TOTAL Other Income (Total of lines 31 thru 40)	—	24,673,767	(105,774,958)		
42	Other Income Deductions					
43	Loss on Disposition of Property (421.2)	—	—	—		
44	Miscellaneous Amortization (425)	—	—	—		
45	Donations (426.1)	340	1,107,144	1,020,825		
46	Life Insurance (426.2)	—	(1,682,347)	(2,492,693)		
47	Penalties (426.3)	—	—	400		
48	Expenditures for Certain Civic, Political and Related Activities (426.4)	—	1,232,171	1,135,662		
49	Other Deductions (426.5)	—	51,252	58,035		
50	TOTAL Other Income Deductions (Total of Lines 43 thru 49)	340	708,220	(277,771)		
51	Taxes Applic. to Other Income and Deductions					
52	Taxes Other Than Income Taxes (408.2)	262-263	712,140	681,501		
53	Income Taxes - Federal (409.2)	262-263	2,614,005	3,140,977		
54	Income Taxes - Other (409.2)	262-263	918,648	665,079		
55	Provision for Deferred Inc. Taxes (410.2)	272-277	927,469	(2,415,299)		
56	(Less) Provision for Deferred Inc. Taxes - Cr. (411.2)	272-277	63,824	182,373		
57	Investment Tax Credit Adj. - Net (411.5)	—	—	—		
58	(Less) Investment Tax Credits (420)	—	—	—		
59	TOTAL Taxes on Other Inc. and Ded. (Total of 52 thru 58)	—	5,108,438	1,889,885		
60	Net Other Income and Deductions (Total of Lines 41, 50, 59)	—	18,857,109	(107,387,072)		
61	Interest Charges					
62	Interest on Long-Term Debt (427)	256-257	36,998,114	36,808,658		
63	Amortization of Debt Disc. and Expense (428)	258-259	1,693,322	1,660,650		
64	Amortization of Loss on Reacquired Debt (428.1)	260	309,472	356,268		
65	(Less) Amort. of Premium on Debt - Credit (429)	256-257	—	—		
66	(Less) Amortization of Gain on Reacquired Debt - Credit (429.1)	—	—	—		
67	Interest on Debt to Assoc. Companies (430)	340	—	—		
68	Other Interest Expense (431)	—	2,904,881	1,299,074		
69	(Less) Allow. for Borrowed Funds Used During Const.-Cr. (432)	—	4,796,752	2,494,702		

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STATEMENT OF INCOME (Continued)

Line No.	Title of Account (a)	Ref. Page No. (b)	Total Current Year To Date Balance for Quarter/Year (c)	Total Current Year To Date Balance for Quarter/Year (d)	Current Three Months Ended Quarterly Only No Fourth Quarter (e)	Prior Three Months Ended Quarterly Only No Fourth Quarter (f)
70	Net Interest Charges (Total of lines 62 thru 69) (See note 1 below)	—	37,109,037	37,629,948		
71	Income Before Extraordinary Items (Total of lines 27, 60 and 70)	—	67,869,020	(54,613,772)		
72	Extraordinary Items					
73	Extraordinary Income (434)	—	—	—		
74	(Less) Extraordinary Deductions (435)	—	—	—		
75	Net Extraordinary Items (Total of line 73 less 74)	—	—	—		
76	Income Taxes - Federal and Other (409.3)	262-263	—	—		
77	Extraordinary Items After Taxes (Total of line 75 less line 76)	—	—	—		
78	Net Income (Total of lines 71 and 77)	—	67,869,020	(54,613,772)		

Note 1

Line 70 detail

Utility interest expense	36,092,688	36,683,366
Non-Utility interest expense	1,016,349	946,582
	<u>37,109,037</u>	<u>37,629,948</u>

Note 2

Accounting standards allow for the capitalization of all or part of an incurred cost that would otherwise be charged to expense if a regulator provides orders that create probable recovery of past costs through future revenues. NW Natural Gas Company accrues interest as specified by regulatory order on certain regulatory balances at our authorized rate of return (ROR). This ROR includes both a debt and equity component, which we are allowed to recover from customers in the form of a carrying cost on regulatory deferred account balances. The equity component of our ROR is not an incurred cost that would otherwise be charged to expense, and therefore is not capitalized and recognized as income for financial reporting purposes. This leads to a difference in reported Net Income between the FERC Form 2 and the Form 10-K filed with the Securities & Exchange Commission (SEC).

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STATEMENT OF ACCUMULATED COMPREHENSIVE INCOME AND HEDGING ACTIVITIES

1. Report the amounts of accumulated other comprehensive income items, on a net-of-tax basis, where appropriate.
2. Report the amounts of other categories of other cash flow hedges.
3. For each category of hedges that have been accounted for as "fair value hedges", report the accounts affected and the related amounts in a footnote.

Line No.	Item (a)	Current Year Amount (b)
1	Beginning AOCI Balance	(8,437,839)
2	Unrealized Gains/losses on available-for-sale securities, net of tax	—
3	Pension liability adjustment, net of tax	477,035
4	Amortization of pension liabilities, net of tax	773,245
5	Foreign currency hedges, net of tax	—
6	Change in unrealized loss from hedging, net of tax	—
7	Cash flow hedges, net of tax	—
8	Other adjustments, net of tax	—
9	Ending Balance of AOCI	(7,187,559)

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STATEMENT OF RETAINED EARNINGS FOR THE YEAR

1. Report all changes in appropriated retained earnings, unappropriated retained earnings, and unappropriated undistributed subsidiary earnings for the year.
2. Each credit and debit during the year should be identified as to the retained earnings account in which recorded (Accounts 433, 436-439 inclusive). Show the contra primary account affected in column (b).
3. State the purpose and amount for each reservation or appropriation of retained earnings.
4. List first Account 439, Adjustments to Retained Earnings, reflecting adjustments to the opening balance of retained earnings. Follow by credit, then debit items, in that order.
5. Show dividends for each class and series of capital stock.

Line No.	Item (a)	Contra Primary Account Affected (b)	Current Year Amount (c)	Previous Year Amount (d)
	UNAPPROPRIATED RETAINED EARNINGS			
1	Balance - Beginning of Year		472,303,081	453,862,896
2	Changes (Identify by prescribed retained earnings accounts)			
3	Adjustments to Retained Earnings (Account 439)			
4				
5				
6	Balance Transferred from Income (Account 433 less Account 418.1)		69,592,157	72,728,921
7	Appropriations of Retained Earnings (Account 436)			
8				
9	Dividends Declared - Preferred Stock (Account 437))			
10				
11	Dividends Declared - Common Stock (Account 438)			
12	Common Stock - Cash Dividends		(40,786,480)	(53,957,310)
12.1	Common Stock - Stock Dividends		—	—
12.2	TOTAL Dividends Declared - Common Stock (Account 438) (Total of lines 12.1 thru 12.2)		(40,786,480)	(53,957,310)
13	Transfers from Acct. 216.1, Unappropriated Undistributed Subsidiary Earnings		—	—
13.1	Other Changes (Explain) (see Note 1 below)		(248,276)	(331,426)
14	Balance - End of Year (Total of lines 1, 4, 5, 6, 8, 10, 12, and 13)		500,860,482	472,303,081
15	APPROPRIATED RETAINED EARNINGS (Account 215)			
16	TOTAL Appropriated Retained Earnings (Account 215)		—	—
17	APPROPRIATED RETAINED EARNINGS - AMORTIZATION RESERVE, FEDERAL (Account 215.1)			
18	TOTAL Appropriated Retained Earnings - Amortization Reserve,		—	—
19	TOTAL Appropriated Retained Earnings (Accounts 215, 215.1)		—	—
20	TOTAL Retained Earnings (Account 215, 215.1, 216)		500,860,482	472,303,081
21	UNAPPROPRIATED UNDISTRIBUTED SUBSIDIARY EARNINGS (ACCOUNT 216.1)			
	Report only on an Annual Basis No Quarterly			
22	Balance - Beginning of Year (Debit or Credit)		(167,041,082)	(39,698,388)
23	Equity in Earnings for Year (Credit) (Account 418.1)		(1,723,137)	(127,342,693)
24	(Less) Dividends Received (Debit)		—	—
25	Other Changes (Explain) (see Note 2 below)		168,764,219	(1)
26	Balance - End of year (Total of lines 20 thru 23)		—	(167,041,082)

Note 1: Line 13.1 - Other Changes for both 2018 and 2017 include non-cash dividend adjustments to the LTIP awards and immaterial round differences.

Note 2: Line 25 - Other Changes for 2018 represent the reorganization of the Company into a Holding Company structure. As part of the reorganization, non-utility entities previously consolidated by NW Natural (i.e. Northwest Natural Gas Financing Corp; KB Pipeline Corp; NW Natural Energy LLC; NW Natural Gas Storage; Gill Ranch Storage; NW Natural Water; NW Natural Holding Company) were no longer consolidated effective October 1, 2018. As a result, unappropriated undistributed subsidiary earnings are now zero. Other Changes for 2017 include immaterial round differences.

Name of Respondent	This Report is:	Date of Report	Year of Report
Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

STATEMENT OF CASH FLOWS

1. Codes to be used: (a) Net Proceeds or Payments;(b) Bonds, debentures and other long-term debt;(c) Include commercial paper; (d) Identify separately such items as investments, fixed assets, intangibles,etc.
2. Information about noncash investing and financing activities should be provided on page 122. Provide also on page 122 a reconciliation between "Cash and Cash Equivalents at End of Year" with related amounts on the balance sheet.
3. Operating Activities-Other: Include gains and losses pertaining to operating activities only. Gains and losses pertaining to investing and financing activities should be reported in those activities. Show on page 122 the amounts of interest paid (net of amounts capitalized)and income taxes paid.
4. Investing Activities: Include at Other (line 25) net cash outflow to acquire other companies. Provide a reconciliation of assets acquired with liabilities assumed on page 122. Do not include on this statement the dollar amount of leases capitalized per the USofA General Instruction 20; instead provide a reconciliation of the dollar amount of leases capitalized with the plant cost.

Line No.	DESCRIPTION (See Instructions for Explanation of Codes) (a)	Current Year Amount (b)	Previous Year Amount (c)
1	Net Cash Flow from Operating Activities:		
2	Net Income (Line 78(c) on page 116)	67,869,020	(54,613,772)
3	Noncash Charges (Credits) to Income:		
4	Depreciation and Depletion	84,986,458	81,023,524
5	Amortization	1,693,322	1,660,650
5.01	FAS 109 Deferred Taxes	(806,352)	(20,839,460)
5.02	FAS 109 Regulatory Asset	806,352	20,839,460
6	Deferred Income Taxes (Net)	11,408,794	(27,125,160)
7	Investment Tax Credit Adjustments (Net)	—	(3,981)
8	Net (Increase) Decrease in Receivables	272,563	2,386,549
9	Net (Increase) Decrease in Inventory	6,784,474	6,086,839
10	Net (Increase) Decrease in Allowances Inventory	—	—
11	Net Increase (Decrease) in Payables and Accrued Expenses	(14,932,083)	19,862,743
12	Minimum Pension Liability Adjustment	1,250,280	(1,487,146)
13	Unrealized (gain)/loss from price risk management activities	8,894,640	60,024,108
14	(Less) Allowance for Other Funds Used During Construction	(8,760,903)	(5,096,070)
15	(Less) Undistributed Earnings from Subsidiary Companies	170,487,356	127,342,693
16	Other: Net (Increase) Decrease in Unbilled Revenues	4,607,808	2,564,854
16.01	Deferred Debits - Net	(46,143,075)	(28,867,092)
16.02	Net (Increase) Decrease in Other Current Assets & Liab.	5,805,807	(784,145)
16.03	Other - Noncurrent Liab., Deferred Credits, & Other Invest.	(1,977,718)	1,274,241
16.04	Unearned Compensation	(224,875,662)	28,887
17	Net Cash Provided by (Used in) Operating Activities		
18	(Total of lines 2 thru 16.04)	67,371,081	184,277,722
19			
20	Cash Flows from Investment Activities:		
21	Construction and Acquisition of Plant (including land):		
22	Gross Additions to Utility Plant (less nuclear fuel)	(191,835,778)	(205,836,587)
23	Gross Additions to Nuclear Fuel	—	—
24	Gross Additions to Common Utility Plant	—	—
25	Gross Additions to Nonutility Plant	(2,219,252)	(1,427,338)
26	(Less) Allowance for Other Funds Used During Construction	8,760,903	5,096,070
27	Other	471,346	(3,959,706)
28	Cash Outflows for Plant (Total of lines 22 thru 27)	(184,822,781)	(206,127,561)
29			
30	Acquisition of Other Noncurrent Assets (d)	—	—
31	Proceeds from Disposal of Noncurrent Assets (d)	—	—
32			
33	Investments in & Advances to Assoc. & Sub. Companies	—	—
34	Contributions & Advances from Assoc. & Sub. Companies	44,874,147	10,996,007
35	Disposition of Investments in (and Advances to)		
36	Associated and Subsidiary Companies	—	—
37			
38	Purchase of Investment Securities (a)	—	—
39	Proceeds from Sales of Investment Securities (a)	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATEMENT OF CASH FLOWS (Continued)			
Line No.	DESCRIPTION (See Instructions for Explanation of Codes) (a)	Current Year Amount (b)	Previous Year Amount (c)
40	Loans Made or Purchased	—	—
41	Collections on Loans	—	—
42			
43	Net (Increase) Decrease in Receivables	—	—
44	Net (Increase) Decrease in Inventory	—	—
45	Net (Increase) Decrease in Allowances Held for Speculation	—	—
46	Net Increase (Decrease) in Payables and Accrued Expenses	—	—
47		—	—
48	Net Cash Provided by (Used in) Investing Activities		
49	(Total of lines 28 thru 47)	(139,948,634)	(195,131,554)
50			
51	Cash Flows from Financing Activities:		
52	Proceeds from Issuance of:		
53	Long-Term Debt (b)	50,000,000	100,000,000
54	Preferred Stock	—	—
55	Common Stock	1,368,024	4,821,851
56	Other: Capital Leases	—	—
57	Net Increase in Short-Term Debt (c)	163,300,004	899,996
58			
59	Cash Provided by Outside Sources (Total of lines 53 thru 58)	214,668,028	105,721,847
60			
61	Payments for Retirement of:		
62	Long-Term Debt (b)	(97,000,000)	(40,000,000)
63	Preferred Stock	—	—
64	Common Stock	483,714	(2,033,860)
65	Other: Capital Leases	—	(153,731)
66	Net Increase (Decrease) in Short-Term Debt (c)	—	—
67	Capital Stock Expense	—	2,637
68	Dividends on Preferred Stock	—	—
69	Dividends on Common Stock	(40,786,480)	(53,957,310)
70	Net Cash Provided by (Used in) Financing Activities		
71	(Total of lines 59 thru 69)	77,365,262	9,579,583
72			
73	Net Increase (Decrease) in Cash and Cash Equivalents		
74	(Total of lines 18, 49, and 71)	4,787,709	(1,274,249)
75			
76	Cash and Cash Equivalents at Beginning of Period	5,415,923	6,690,172
77			
78	Cash and Cash Equivalents at End of Period	10,203,632	5,415,923

Name of Respondent	This Report is:	Date of Report	Year of Report
Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

NOTES TO FINANCIAL STATEMENTS

1. Provide important disclosures regarding the Balance Sheet, Statement of Income for the Year, Statement of Retained Earnings for the Year, and Statement of Cash Flow, or any account thereof. Classify the disclosures according to each financial statement, providing a subheading for each statement except where a disclosure is applicable to more than one statement. The disclosures must be on the same subject matters and in the same level of detail that would be required if the respondent issued general purpose financial statements to the public or shareholders.
2. Furnish details as to any significant contingent assets or liabilities existing at year end, and briefly explain any action initiated by the Internal Revenue Service involving possible assessment of additional income taxes of material amount, or a claim for refund of income taxes of a material amount initiated by the utility. Also, briefly explain any dividends in arrears on cumulative preferred stock.
3. Furnish details on the respondent's pension plans, post-retirement benefits other than pensions (PBOP) plans, and post-employment benefit plans as required by instruction no. 1 and, in addition, disclose for each individual plan the current year's cash contributions. Furnish details on the accounting for the plans and any changes in the method of accounting for them. Include details on the accounting for transition obligations or assets, gains or losses, the amounts deferred and the expected recovery periods. Also, disclose any current year's plan or trust curtailments, terminations, transfers, or reversions of assets. Entities that participate in multiemployer postretirement benefit plans (e.g. parent company sponsored pension plans) disclose in addition to the required disclosures for the consolidated plan, (1) the amount of cost recognized in the respondent's financial statements for each plan for the period presented, and (2) the basis for determining the respondent's share of the total plan costs.
4. Furnish details on the respondent's asset retirement obligations (ARO) as required by instruction no. 1 and, in addition, disclose the amounts recovered through rates to settle such obligations. Identify any mechanism or account in which recovered funds are being placed (i.e. trust funds, insurance policies, surety bonds). Furnish details on the accounting for the asset retirement obligations and any changes in the measurement or method of accounting for the obligations. Include details on the accounting for settlement of the obligations and any gains or losses expected or incurred on the settlement.
5. Provide a list of all environmental credits received during the reporting period.
6. Provide a summary of revenues and expenses for each tracked cost and special surcharge.
7. Where Account 189, Unamortized Loss on Reacquired Debt, and 257, Unamortized Gain on Reacquired Debt, are not used, give an explanation, providing the rate treatment given these items. See General Instruction 17 of the Uniform System of Accounts.
8. Explain concisely any retained earnings restrictions and state the amount of retained earnings affected by such restrictions.
9. Disclose details on any significant financial changes during the reporting year to the respondent or the respondent's consolidated group that directly affect the respondent's gas pipeline operations, including: sales, transfers or mergers of affiliates, investments in new partnerships, sales of gas pipeline facilities or the sale of ownership interests in the gas pipeline to limited partnerships, investments in related industries (i.e., production, gathering), major pipeline investments, acquisitions by the parent corporation(s), and distributions of capital.
10. Explain concisely unsettled rate proceedings where a contingency exists such that the company may need to refund a material amount to the utility's customers or that the utility may receive a material refund with respect to power or gas purchases. State for each year affected the gross revenues or costs to which the contingency relates and the tax effects and explain the major factors that affect the rights of the utility to retain such revenues or to recover amounts paid with respect to power and gas purchases.
11. Explain concisely significant amounts of any refunds made or received during the year resulting from settlement of any rate proceeding affecting revenues received or costs incurred for power or gas purchases, and summarize the adjustments made to balance sheet, income, and expense accounts.
12. Explain concisely only those significant changes in accounting methods made during the year which had an effect on net income, including the basis of allocations and apportionments from those used in the preceding year. Also give the approximate dollar effect of such changes.
13. For the 3Q disclosures, respondent must provide in the notes sufficient disclosures so as to make the interim information not misleading. Disclosures which would substantially duplicate the disclosures contained in the most recent FERC Annual Report may be omitted.
14. For the 3Q disclosures, the disclosures shall be provided where events subsequent to the end of the most recent year have occurred which have a material effect on the respondent. Respondent must include in the notes significant changes since the most recently completed year in such items as: accounting principles and practices; estimates inherent in the preparation of the financial statements; status of long-term contracts; capitalization including significant new borrowings or modifications of existing financing agreements; and changes resulting from business combinations or dispositions. However where material contingencies exist, the disclosure of such matters shall be provided even though a significant change since year end may not have occurred.
15. Finally, if the notes to the financial statements relating to the respondent appearing in the annual report to the stockholders are applicable and furnish the data required by the above instructions, such notes may be included herein.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND PRINCIPLES OF CONSOLIDATION

On October 1, 2018, we completed a reorganization into a holding company structure. In this reorganization, shareholders of NW Natural (the predecessor publicly held parent company) became shareholders of NW Holdings on a one-for-one basis; maintaining the same number of shares and ownership percentage as held in NW Natural immediately prior to the reorganization. NW Natural became a wholly-owned subsidiary of NW Holdings. Additionally, certain subsidiaries of NW Natural were transferred to NW Holdings. This reorganization was accounted for as a transaction among entities under common control. As required under accounting guidance, these subsidiaries are presented in this report as discontinued operations in the consolidated results of NW Natural. See Note 18 for additional information.

The accompanying consolidated financial statements represent the respective, consolidated results and financial results of NW Holdings and NW Natural and all respective companies that each registrant directly or indirectly controls, either through majority ownership or otherwise. This is a combined report of NW Holdings and NW Natural, which includes separate consolidated financial statements for each registrant.

NW Natural's natural gas distribution activities are reported in the natural gas distribution (NGD) segment, formerly titled and reported as the utility segment. The NGD segment is NW Natural's core operating business and serves residential, commercial, and industrial customers in Oregon and southwest Washington. The NGD segment is the only reportable segment for NW Holdings and NW Natural. All other business activities, including certain gas storage activities, water businesses, and other investments and activities are aggregated and reported as other at their respective registrant.

In addition, NW Holdings has reported discontinued operations results related to the pending sale of Gill Ranch Storage, LLC (Gill Ranch).

NW Holdings' direct and indirect wholly-owned subsidiaries include:

- Northwest Natural Gas Company (NW Natural);
 - Northwest Energy Corporation (Energy Corp);
 - NWN Gas Reserves LLC (NWN Gas Reserves);
- NW Natural Energy, LLC (NWN Energy);
 - NW Natural Gas Storage, LLC (NWN Gas Storage);
 - Gill Ranch Storage, LLC (Gill Ranch), which is presented as a discontinued operation;
- NNG Financial Corporation (NNG Financial);
 - KB Pipeline Company (KB);
- NW Natural Water Company, LLC (NWN Water);
 - Falls Water Co., Inc. (Falls Water);
 - Salmon Valley Water Company;
 - Cascadia Water, LLC (Cascadia);

- NW Natural Water of Oregon, LLC (NWN Water of Oregon);
- NW Natural Water of Washington, LLC (NWN Water of Washington); and
- NW Natural Water of Idaho, LLC (NWN Water of Idaho); and
 - Gem State Water Company, LLC (Gem State)

Investments in corporate joint ventures and partnerships that NW Holdings does not directly or indirectly control, and for which it is not the primary beneficiary, include NWN Financial's investment in Kelso-Beaver Pipeline and NWN Energy's investment in Trail West Holdings, LLC (TWH), which is accounted for under the equity method. NW Holdings and its direct and indirect subsidiaries are collectively referred to herein as NW Holdings, and NW Natural and its direct and indirect subsidiaries are collectively referred to herein as NW Natural. The consolidated financial statements of NW Holdings and NW Natural are presented after elimination of all intercompany balances and transactions.

During the second quarter of 2018, we moved forward with our long-term strategic plans, which include a shift away from the California gas storage business. In June 2018, NWN Gas Storage, a wholly-owned subsidiary of NW Natural at the time and now a wholly-owned subsidiary of NW Holdings, entered into a Purchase and Sale Agreement that provides for the sale of all of the membership interests in its wholly-owned subsidiary, Gill Ranch, subject to various regulatory approvals and closing conditions. We have concluded that the pending sale of Gill Ranch qualifies as assets and liabilities held for sale and discontinued operations. As such, the results of Gill Ranch have been presented as a discontinued operation for NW Holdings for all periods presented and for NW Natural up until the holding company reorganization was effective on October 1, 2018 on the consolidated statements of comprehensive income and cash flows, and the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and liabilities on the NW Holdings consolidated balance sheet. See Note 18 for additional information. Additionally, we reevaluated reportable segments and concluded that the remaining gas storage activities no longer meet the requirements to be separately reported as a segment. Interstate Storage Services is now reported in Other under NW Natural and all prior periods reflect this change. See Note 4, which provides segment information.

Notes to the consolidated financial statements reflect the activity of continuing operations for both NW Holdings and NW Natural for all periods presented, unless otherwise noted. Note 4 and Note 18 provide information regarding reportable segments and discontinued operations, respectively.

All prior period amounts have been retrospectively adjusted to reflect the change in reportable segments and the designation of Gill Ranch as a discontinued operation for

NW Holdings, and the designation of subsidiaries previously owned by NW Natural that are now owned by NW Holdings as discontinued operations for NW Natural. These reclassifications and the reorganization activities described

above had no effect on the prior year's consolidated results of operations, financial condition, or cash flows.

2. SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America (U.S. GAAP) requires management to make estimates and assumptions that affect reported amounts in the consolidated financial statements and accompanying notes. Actual amounts could differ from those estimates, and changes would most likely be reported in future periods. Management believes the estimates and assumptions used are reasonable.

Industry Regulation

NW Holdings' principal business is to operate as a holding company for NW Natural, NWN Water and its other subsidiaries.

NW Natural's principal business is the distribution of natural gas, which is regulated by the OPUC and WUTC. NW Natural also has natural gas storage services, which are regulated by the FERC, and to a certain extent by the OPUC and WUTC. Additionally, certain NW Holdings' subsidiaries own water businesses, which are regulated by the OPUC, WUTC, or IPUC. Accounting records and practices of the regulated businesses conform to the requirements and uniform system of accounts prescribed by these regulatory authorities in accordance with U.S. GAAP. The businesses in which customer rates are regulated by the OPUC, WUTC, IPUC, and FERC have approved cost-based rates which are intended to allow such businesses to earn a reasonable return on invested capital.

In applying regulatory accounting principles, we capitalize or defer certain costs and revenues as regulatory assets and liabilities pursuant to orders of the OPUC, WUTC, or IPUC, which provide for the recovery of revenues or expenses from, or refunds to, utility customers in future periods, including a return or a carrying charge in certain cases.

At December 31, NW Natural deferred the following amounts as regulatory assets and liabilities:

<i>In thousands</i>	Regulatory Assets	
	2018	2017
Current:		
Unrealized loss on derivatives ⁽¹⁾	\$ 12,381	\$ 18,712
Gas costs	2,873	154
Environmental costs ⁽²⁾	5,601	6,198
Decoupling ⁽³⁾	9,140	11,227
Income taxes	2,218	2,218
Other ⁽⁴⁾	9,717	7,272
Total current	\$ 41,930	\$ 45,781
Non-current:		
Unrealized loss on derivatives ⁽¹⁾	\$ 3,025	\$ 4,649
Pension balancing ⁽⁵⁾	74,173	60,383
Income taxes	19,185	19,991
Pension and other postretirement benefit liabilities	174,993	179,824
Environmental costs ⁽²⁾	76,149	72,128
Gas costs	9,978	84
Decoupling ⁽³⁾	2,545	3,970
Other ⁽⁴⁾	11,738	15,579
Total non-current	\$ 371,786	\$ 356,608
Regulatory Liabilities		
<i>In thousands</i>	2018	2017
Current:		
Gas costs	\$ 17,182	\$ 14,886
Unrealized gain on derivatives ⁽¹⁾	8,740	1,674
Decoupling ⁽³⁾	2,264	322
Other ⁽⁴⁾	19,250	17,131
Total current	\$ 47,436	\$ 34,013
Non-current:		
Gas costs	\$ 552	\$ 4,630
Unrealized gain on derivatives ⁽¹⁾	725	1,306
Decoupling ⁽³⁾	—	957
Income taxes ⁽⁶⁾	225,408	213,306
Accrued asset removal costs ⁽⁷⁾	380,464	360,929
Other ⁽⁴⁾	4,411	4,965
Total non-current	\$ 611,560	\$ 586,093

- (1) Unrealized gains or losses on derivatives are non-cash items and, therefore, do not earn a rate of return or a carrying charge. These amounts are recoverable through natural gas distribution rates as part of the annual Purchased Gas Adjustment (PGA) mechanism when realized at settlement.
- (2) Refer to footnote (3) of the Deferred Regulatory Asset table in Note 17 for a description of environmental costs.
- (3) This deferral represents the margin adjustment resulting from differences between actual and expected volumes.

- (4) Balances consist of deferrals and amortizations under approved regulatory mechanisms and typically earn a rate of return or carrying charge.
- (5) Refer to footnote (1) of the Net Periodic Benefit Cost table in Note 9 for information regarding the deferral of pension expenses.
- (6) This balance represents estimated amounts associated with the Tax Cuts and Jobs Act. See Note 10.
- (7) Estimated costs of removal on certain regulated properties are collected through rates. See "Accounting Policies—Plant, Property, and Accrued Asset Removal Costs" below.

The amortization period for NW Natural's regulatory assets and liabilities ranges from less than one year to an indeterminable period. Regulatory deferrals for gas costs payable are generally amortized over 12 months beginning each November 1 following the gas contract year during which the deferred gas costs are recorded. Similarly, most other regulatory deferred accounts are amortized over 12 months. However, certain regulatory account balances, such as income taxes, environmental costs, pension liabilities, and accrued asset removal costs, are large and tend to be amortized over longer periods once NW Natural has agreed upon an amortization period with the respective regulatory agency.

We believe all costs incurred and deferred at December 31, 2018 are prudent. All regulatory assets and liability are reviewed annually for recoverability, or more often if circumstances warrant. If it is determined that all or a portion of these regulatory assets or liabilities no longer meet the criteria for continued application of regulatory accounting, then NW Natural would be required to write-off the net unrecoverable balances in the period such determination is made.

Environmental Regulatory Accounting

See Note 17 for information about the SRRM and OPUC orders regarding implementation.

New Accounting Standards

NW Holdings and NW Natural consider the applicability and impact of all accounting standards updates (ASUs) issued by the Financial Accounting Standards Board (FASB). ASUs not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on the consolidated financial position or results of operations.

Recently Adopted Accounting Pronouncements

STOCK COMPENSATION. On May 10, 2017, the FASB issued ASU 2017-09, "Stock Compensation - Scope of Modification Accounting." The purpose of the amendment is to provide clarity, reduce diversity in practice, and reduce the cost and complexity when applying the guidance in Topic 718, related to a change to the terms or conditions of a share-based payment award. Specifically, an entity would not apply modification accounting if the fair value, vesting conditions, and classification of the awards are the same immediately before and after the modification. The amendments in this update were effective beginning January 1, 2018, and will be applied prospectively to any award modified on or after the adoption date. The adoption did not have a material impact to the financial statements or disclosures of NW Holdings or NW Natural.

RETIREMENT BENEFITS. On March 10, 2017, the FASB issued ASU 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post Retirement Benefit Cost." The ASU requires entities to disaggregate current service cost from the other components of net periodic benefit cost and present it with other current compensation costs for related employees in the income statement. Additionally, the other components of net periodic benefit costs are to be presented elsewhere in the income statement and outside of income from operations if that subtotal is presented. Only the service cost component of the net periodic benefit cost is eligible for capitalization. The amendments in this update were effective beginning January 1, 2018. Upon adoption, the ASU required that changes to the income statement presentation of net periodic benefit cost be applied retrospectively, while changes to amounts capitalized must be applied prospectively. As such, the interest cost, expected return on assets, amortization of prior service costs, and other costs have been reclassified from operations and maintenance expense to other income (expense), net on the consolidated statements of comprehensive income for the years ended December 31, 2017 and 2016. We did not elect the practical expedient which would have allowed for the reclassification of amounts disclosed previously in the pension and other postretirement benefits footnote disclosure as the basis for applying retrospective presentation. As mentioned above, on a prospective basis, the other components of net periodic benefit cost will not be eligible for capitalization.

The retrospective presentation requirement related to the other components of net periodic benefit cost affected the operations and maintenance expense and other income (expense), net lines on the NW Natural consolidated statements of comprehensive income. For the years ended December 31, 2017 and 2016, \$5.6 million and \$6.6 million of expense was reclassified from operations and maintenance expense and included in other income (expense), net, respectively.

GOODWILL. On January 26, 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment." The ASU removes Step 2 from the goodwill impairment test and under the amended guidance an entity should perform its annual goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount in which the carrying amounts exceed the fair value of the reporting unit. The

amendments in this standard are effective beginning January 1, 2020 and early adoption is permitted for interim or annual goodwill impairment tests performed after January 1, 2017. ASU 2017-04 was early adopted in the third quarter ended September 30, 2018. The adoption of this ASU did not materially affect the financial statements or disclosures of NW Holdings or NW Natural and is currently not applicable to NW Natural.

STATEMENT OF CASH FLOWS. On August 26, 2016, the FASB issued ASU 2016-15, "Classification of Certain Cash Receipts and Cash Payments." The ASU adds guidance pertaining to the classification of certain cash receipts and payments on the statement of cash flows. The purpose of the amendment is to clarify issues that have been creating diversity in practice. The amendments in this standard were effective beginning January 1, 2018, and the adoption did not have a material impact to financial statements or disclosures as our historical practices and presentation were consistent with the directives of this ASU for NW Holdings and NW Natural.

FINANCIAL INSTRUMENTS. On January 5, 2016, the FASB issued ASU 2016-01, "Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities." The ASU enhances the reporting model for financial instruments, which includes amendments to address aspects of recognition, measurement, presentation, and disclosure. The new standard was effective beginning January 1, 2018, and the adoption did not materially impact the financial statements or disclosures of NW Holdings or NW Natural.

REVENUE RECOGNITION. On May 28, 2014, the FASB issued ASU 2014-09 "Revenue From Contracts with Customers." The underlying principle of the guidance requires entities to recognize revenue depicting the transfer of goods or services to customers at amounts the entity is expected to be entitled to in exchange for those goods or services. The ASU also prescribes a five-step approach to revenue recognition: (1) identify the contract(s) with the customer; (2) identify the separate performance obligations in the contract(s); (3) determine the transaction price; (4) allocate the transaction price to separate performance obligations; and (5) recognize revenue when, or as, each performance obligation is satisfied. The guidance also requires additional disclosures, both qualitative and quantitative, regarding the nature, amount, timing and uncertainty of revenue and cash flows.

The new accounting standard and all related amendments were effective beginning January 1, 2018. The accounting standard was applied to all contracts using the modified retrospective method. The new standard is primarily reflected in the consolidated statements of comprehensive income and Note 6. The implementation of the new revenue standard did not result in changes to how NW Holdings and NW Natural currently recognize revenue, and therefore, no cumulative effect or adjustment to the opening balances of retained earnings was required. The implementation did result in changes to the disclosures and presentation of revenues and expenses. The comparative information for prior years has not been restated. There is no material impact to the financial results of NW Holdings or NW Natural and no significant changes to our control environment due

to the adoption of the new revenue standard on an ongoing basis.

As previously discussed, the adoption of the new revenue standard did not impact the consolidated balance sheets or statements of cash flows but did result in changes to the presentation of the consolidated statements of comprehensive income for NW Holdings and NW Natural. Had the adoption of the new revenue standard not occurred, operating revenues for the year ended December 31, 2018 would have been \$676.0 million for NW Holdings, compared to the reported amount of \$706.1 million under the new revenue standard. Similarly, absent the impact of the new revenue standard, operating expenses would have been \$543.9 million for NW Holdings, compared to the reported amount of \$574.0 million under the new revenue standard for the year ended December 31, 2018. The effect of the change was an increase in both operating revenues and operating expenses of \$30.1 million at NW Holdings and NW Natural for the year ended December 31, 2018; due to the change in presentation of revenue taxes. As part of the adoption of the new revenue standard, we evaluated the presentation of revenue taxes under the new guidance and across our peer group and concluded that the gross presentation of revenue taxes provides the greatest level of consistency and transparency. Prior to the adoption of the new revenue standard, a portion of revenue taxes was presented net in operating revenues and a portion was recorded directly on the balance sheet. During year ended December 31, 2018, \$30.1 million in revenue taxes for NW Holdings and NW Natural was recognized in operating revenues and operating expenses. In comparison, for the years ended December 31, 2017 and 2016, \$32.2 million and \$28.3 million was recognized in revenue taxes for NW Holdings and NW Natural, of which \$19.1 million and \$17.1 million were recorded in operating revenues and \$13.1 million and \$11.2 million were recorded on the consolidated balance sheets, respectively. The change in presentation of revenue taxes had no impact on NGD margin, net income or earnings per share.

Recently Issued Accounting Pronouncements

CLOUD COMPUTING. On August 29, 2018, the FASB issued ASU 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The purpose of the amendment is to align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The amendments in this update are effective beginning January 1, 2020. Early adoption is permitted. The amended guidance can be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. We are currently assessing the effect of this standard on NW Holdings' and NW Natural's financial statements and disclosures.

RETIREMENT BENEFITS. On August 28, 2018, the FASB issued ASU 2018-14, "Changes to the Disclosure Requirements for Defined Benefit Plans." The purpose of the amendment is to modify the disclosure requirements for defined benefit pension and other postretirement plans. The amendments in this update are effective for the year ended December 31, 2020. Early adoption is permitted. The

amended presentation and disclosure guidance should be applied retrospectively. We are currently assessing the effect of this standard on NW Holdings' and NW Natural's disclosures.

FAIR VALUE MEASUREMENT. On August 28, 2018, the FASB issued ASU 2018-13, "Changes to the Disclosure Requirements for Fair Value Measurement." The purpose of the amendment is to modify the disclosure requirements for fair value measurements. The amendments in this update are effective beginning January 1, 2020. Early adoption is permitted. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively. All other amendments should be applied retrospectively. We are currently assessing the effect of this standard on NW Holdings' and NW Natural's disclosures.

ACCUMULATED OTHER COMPREHENSIVE INCOME. On February 14, 2018, the FASB issued ASU 2018-02, "Income Statement—Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." This update was issued in response to concerns from certain stakeholders regarding the current requirements under U.S. GAAP that deferred tax assets and liabilities are adjusted for a change in tax laws or rates, and the effect is to be included in income from continuing operations in the period of the enactment date. This requirement is also applicable to items in accumulated other comprehensive income where the related tax effects were originally recognized in other comprehensive income. The adjustment of deferred taxes due to the new corporate income tax rate enacted through the TCJA on December 22, 2017 recognized in income from continuing operations causes the tax effects of items within accumulated other comprehensive income (referred to as stranded tax effects) to not reflect the appropriate tax rate. The amendments in this update allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the TCJA and require certain disclosures about stranded tax effects. The amendments in this update are effective beginning January 1, 2019, and should be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the federal corporate income tax rate in the TCJA is recognized. The reclassification allowed in this update is elective, and we are currently assessing whether we will make the reclassification. This update is not expected to have a material impact on the financial condition of NW Holdings or NW Natural.

DERIVATIVES AND HEDGING. On August 28, 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities." The purpose of the amendment is to more closely align hedge accounting with companies' risk management strategies. The ASU amends the accounting for risk component hedging, the hedged item in fair value hedges of interest rate risk, and amounts excluded from the assessment of hedge effectiveness. The guidance also amends the recognition and presentation of the effect of hedging instruments and includes other simplifications of hedge accounting. The amendments in this update are

effective beginning January 1, 2019. Early adoption is permitted. The amended presentation and disclosure guidance is required prospectively. We do not anticipate the adoption of this standard to have a material impact on NW Holdings' and NW Natural's financial statements and disclosures.

LEASES. On February 25, 2016, the FASB issued ASU 2016-02, "Leases," which revises the existing lease accounting guidance. Pursuant to the new standard, lessees will be required to recognize all leases, including operating leases that are greater than 12 months at lease commencement, on the balance sheet and record corresponding right-of-use assets and lease liabilities. Lessor accounting will remain substantially the same under the new standard. Quantitative and qualitative disclosures are also required for users of the financial statements to have a clear understanding of the nature of NW Natural's leasing activities. On July 30, 2018, the FASB approved an optional alternative transition approach that would allow entities to apply the transition requirements on the effective date of the standard. Additionally, on January 25, 2018, the FASB issued ASU 2018-01, "Land Easement Practical Expedient for Transition to Topic 842", to address the costs and complexity of applying the transition provisions of the new lease standard to land easements. This ASU provides an optional practical expedient to not evaluate existing or expired land easements that were not previously accounted for as leases under the current lease guidance. The standard and associated ASUs were effective for us beginning January 1, 2019.

We elected the alternative prospective transition approach for adoption of ASC 842 beginning January 1, 2019. All comparative periods prior to January 1, 2019 will retain the financial reporting and disclosure requirements of ASC 840 "Leases" ("ASC 840"). We elected the land easement optional practical expedient to not evaluate existing or expired land easements that were not previously accounted for as leases under the current lease guidance. For the existing lease portfolio, we did not elect the optional practical expedient package to retain the legacy lease accounting conclusions upon adoption; rather, we re-assessed our existing contracts under the new leasing standard including whether the contract meets the definition of a lease and lease classification. As a result, we determined that most of our underground gas storage contracts no longer meet the definition of a lease under the new lease standard. Our lease portfolio under the new standard consists primarily of our leased headquarters, which expires in 2020. Upon adoption, NW Holdings expects to record a right-of-use lease asset and an associated lease liability of approximately \$7.3 million, of which \$7.0 million is expected to be recorded at NW Natural.

In October 2017, NW Natural entered into a 20-year operating lease agreement commencing in 2020 for the new headquarters location in Portland, Oregon. Under the new lease standard, NW Natural is no longer considered the accounting owner of the asset during construction. As such, we expect to de-recognized the build-to-suit asset and liability balances of \$26.0 million as of December 31, 2018 that were recorded under ASC 840 within property, plant and equipment and other non-current liabilities in the

consolidated balance sheet. Refer to Note 16 for current lease commitments.

CREDIT LOSSES. On June 16, 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments," which applies to financial assets subject to credit losses and measured at amortized cost. The new standard will require financial assets measured at amortized cost to be presented at the net amount expected to be collected and the allowance for credit losses is to be recorded as a valuation account that is deducted from the amortized cost basis. The amendments in this update are effective beginning January 1, 2020. Early adoption is permitted for fiscal years beginning after December 15, 2018. We are currently assessing the effect of this standard on the financial statements and disclosures of NW Holdings and NW Natural.

Accounting Policies

The accounting policies discussed below apply to both NW Holdings and NW Natural.

Plant, Property, and Accrued Asset Removal Costs

Plant and property are stated at cost, including capitalized labor, materials, and overhead. In accordance with regulatory accounting standards, the cost of acquiring and constructing long-lived plant and property generally includes an allowance for funds used during construction (AFUDC) or capitalized interest. AFUDC represents the regulatory financing cost incurred when debt and equity funds are used for construction (see "AFUDC" below). When constructed assets are subject to market-based rates rather than cost-based rates, the financing costs incurred during construction are included in capitalized interest in accordance with U.S. GAAP, not as regulatory financing costs under AFUDC.

In accordance with long-standing regulatory treatment, our depreciation rates consist of three components: one based on the average service life of the asset, a second based on the estimated salvage value of the asset, and a third based on the asset's estimated cost of removal. We collect, through rates, the estimated cost of removal on certain regulated properties through depreciation expense, with a corresponding offset to accumulated depreciation. These removal costs are non-legal obligations as defined by regulatory accounting guidance. Therefore, we have included these costs as non-current regulatory liabilities rather than as accumulated depreciation on our consolidated balance sheets. In the rate setting process, the liability for removal costs is treated as a reduction to the net rate base on which the NGD business has the opportunity to earn its allowed rate of return.

The costs of NGD plant retired or otherwise disposed of are removed from NGD plant and charged to accumulated depreciation for recovery or refund through future rates. Gains from the sale of regulated assets are generally deferred and refunded to customers. For assets not related to NGD, we record a gain or loss upon the disposal of the property, and the gain or loss is recorded in operating income or loss in the consolidated statements of comprehensive income.

The provision for depreciation of NGD property, plant, and equipment is recorded under the group method on a

straight-line basis with rates computed in accordance with depreciation studies approved by regulatory authorities. The weighted-average depreciation rate for NGD assets in service was approximately 2.8% for 2018, 2017, and 2016, reflecting the approximate weighted-average economic life of the property. This includes 2018 weighted-average depreciation rates for the following asset categories: 2.7% for transmission and distribution plant, 2.1% for gas storage facilities, 4.5% for general plant, and 3.1% for intangible and other fixed assets.

AFUDC. Certain additions to NGD plant include AFUDC, which represents the net cost of debt and equity funds used during construction. AFUDC is calculated using actual interest rates for debt and authorized rates for ROE, if applicable. If short-term debt balances are less than the total balance of construction work in progress, then a composite AFUDC rate is used to represent interest on all debt funds, shown as a reduction to interest charges, and on ROE funds, shown as other income. While cash is not immediately recognized from recording AFUDC, it is realized in future years through rate recovery resulting from the higher NGD cost of service. Our composite AFUDC rate was 5.2% in 2018, 5.5% in 2017, and 0.7% in 2016.

IMPAIRMENT OF LONG-LIVED ASSETS. We review the carrying value of long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. Factors that would necessitate an impairment assessment of long-lived assets include a significant adverse change in the extent or manner in which the asset is used, a significant adverse change in legal factors or business climate that could affect the value of the asset, or a significant decline in the observable market value or expected future cash flows of the asset, among others.

When such factors are present, we assess the recoverability by determining whether the carrying value of the asset will be recovered through expected future cash flows. An asset is determined to be impaired when the carrying value of the asset exceeds the expected undiscounted future cash flows from the use and eventual disposition of the asset. If an impairment is indicated, we record an impairment loss for the difference between the carrying value and the fair value of the long-lived assets. Fair value is estimated using appropriate valuation methodologies, which may include an estimate of discounted cash flows.

In the fourth quarter of 2017, a non-cash pre-tax impairment of long-lived assets at the Gill Ranch Facility of \$192.5 million was recognized. The income approach was used to estimate fair value, using the estimated future net cash flows. We also compared the results of the income approach to our own recent sale experience and recent market comparable transactions in order to estimate fair value. The Gill Ranch Facility was originally included in the gas storage segment, which has since been eliminated, and is now included in discontinued operations. We determined circumstances existed that indicated the carrying value of the assets may not be recoverable. Those circumstances included the completion of a comprehensive strategic review process that evaluated various alternatives including a potential sale, as well as contracting for available storage at lower than anticipated values for the coming storage year.

Given these considerations, management re-evaluated the estimated cash flows from our interests in the Gill Ranch Facility, and determined that those estimated cash flows were no longer sufficient to cover the carrying value of the assets. The results of Gill Ranch have been presented as a discontinued operation for NW Holdings and NW Natural on the consolidated statements of comprehensive income and cash flows, and the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and liabilities on the consolidated balance sheets. See Note 18 for additional information.

Cash and Cash Equivalents

For purposes of reporting cash flows, cash and cash equivalents include cash on hand plus highly liquid investment accounts with original maturity dates of three months or less. At December 31, 2018 and 2017, NW Holdings had outstanding checks of approximately \$2.7 million and \$4.8 million, respectively, substantially all of which is recorded at NW Natural. These balances are included in accounts payable in the NW Holdings and NW Natural balance sheets.

Revenue Recognition and Accrued Unbilled Revenue

Revenues, derived primarily from the sale and transportation of natural gas, are recognized upon delivery of the gas commodity or service to customers. Revenues include accruals for gas or water delivered but not yet billed to customers based on estimates of deliveries from meter reading dates to month end (accrued unbilled revenue). Accrued unbilled revenue is dependent upon a number of factors that require management's judgment, including total natural gas receipts and deliveries, customer use of natural gas or water by billing cycle, and weather factors. Accrued unbilled revenue is reversed the following month when actual billings occur. NW Holdings' accrued unbilled revenue at December 31, 2018 and 2017 was \$57.8 million and \$62.4 million, respectively, substantially all of which is accrued unbilled revenue at NW Natural.

Revenues not related to NGD are derived primarily from Interstate Storage Services, asset management activities at the Mist gas storage facility, and other investments and business activities. At the Mist underground storage facility, revenues are primarily firm service revenues in the form of fixed monthly reservation charges. In addition, we also have asset management service revenue from an independent energy marketing company that optimizes commodity, storage, and pipeline capacity release transactions. Under this agreement, guaranteed asset management revenue is recognized using a straight-line, pro-rata methodology over the term of each contract. Revenues earned above the guaranteed amount are recognized as they are earned.

Revenue Taxes

Revenue-based taxes are primarily franchise taxes, which are collected from customers and remitted to taxing authorities. In 2018, revenue taxes are included in operating expenses in the statements of comprehensive income for NW Holdings and NW Natural. In 2017 and 2016, revenue taxes are included in operating revenues in the statements of comprehensive income for NW Holdings and NW Natural. All revenue taxes are recorded at NW Natural and were \$30.1 million, \$19.1 million, and \$17.1 million for 2018, 2017, and 2016, respectively.

Accounts Receivable and Allowance for Uncollectible Accounts

Accounts receivable consist primarily of amounts due for natural gas sales and transportation services to NGD customers, plus amounts due for gas storage services. At NW Holdings and NW Natural we establish allowances for uncollectible accounts (allowance) for trade receivables, including accrued unbilled revenue, based on the aging of receivables, collection experience of past due account balances including payment plans, and historical trends of write-offs as a percent of revenues. A specific allowance is established and recorded for large individual customer receivables when amounts are identified as unlikely to be partially or fully recovered. Inactive accounts are written-off against the allowance after they are 120 days past due or when deemed uncollectible. Differences between the estimated allowance and actual write-offs will occur based on a number of factors, including changes in economic conditions, customer creditworthiness, and natural gas prices. The allowance for uncollectible accounts is adjusted quarterly, as necessary, based on information currently available.

Inventories

NGD gas inventories, which consist of natural gas in storage for NGD, are stated at the lower of average cost or net realizable value. The regulatory treatment of these inventories provides for cost recovery in customer rates. NGD gas inventories injected into storage are priced in inventory based on actual purchase costs, and those withdrawn from storage are charged to cost of gas during the current period they are withdrawn at the weighted-average inventory cost.

Gas storage inventories, which primarily represent inventories at the Gill Ranch Facility and are included in Discontinued operations - current assets on the consolidated balance sheets, mainly consist of natural gas received as fuel-in-kind from storage customers. Gas storage inventories are valued at the lower of average cost or net realizable value. Cushion gas is not included in inventory balances, is recorded at original cost, and is classified as a long-term plant asset.

Materials and supplies inventories consist of inventories both related to and unrelated to NGD and are stated at the lower of average cost or net realizable value.

NW Natural's NGD and gas storage inventories totaled \$29.9 million and \$36.7 million at December 31, 2018 and 2017, respectively. At December 31, 2018 and 2017, NW Holdings' materials and supplies inventories, which are comprised primarily of NW Natural's materials and supplies, totaled \$14.2 million and \$10.9 million, respectively.

Gas Reserves

Gas reserves are payments to acquire and produce natural gas reserves. Gas reserves are stated at cost, adjusted for regulatory amortization, with the associated deferred tax benefits recorded as liabilities on the balance sheet. The current portion is calculated based on expected gas deliveries within the next fiscal year. NW Natural recognizes regulatory amortization of this asset on a volumetric basis

calculated using the estimated gas reserves and the estimated terms extracted and sold each month. The amortization of gas reserves is recorded to cost of gas along with gas production revenues and production costs. See Note 12.

Derivatives

NW Natural's derivatives are measured at fair value and recognized as either assets or liabilities on the balance sheet. Changes in the fair value of the derivatives are recognized currently in earnings unless specific regulatory or hedge accounting criteria are met. Accounting for derivatives and hedges provides an exception for contracts intended for normal purchases and normal sales for which physical delivery is probable. In addition, certain derivative contracts are approved by regulatory authorities for recovery or refund through customer rates. Accordingly, the changes in fair value of these approved contracts are deferred as regulatory assets or liabilities pursuant to regulatory accounting principles. NW Natural's financial derivatives generally qualify for deferral under regulatory accounting. NW Natural's index-priced physical derivative contracts also qualify for regulatory deferral accounting treatment.

Derivative contracts entered into for NGD requirements after the annual PGA rate has been set and maturing during the PGA year are subject to the PGA incentive sharing mechanism. In Oregon, NW Natural participates in a PGA sharing mechanism under which it is required to select either an 80% or 90% deferral of higher or lower gas costs such that the impact on current earnings from the gas cost sharing is either 20% or 10% of gas cost differences compared to PGA prices, respectively. For the PGA years in Oregon beginning November 1, 2018, 2017, and 2016, NW Natural selected the 90%, 90%, and 90% deferral of gas cost differences, respectively. In Washington, 100% of the differences between the PGA prices and actual gas costs are deferred. See Note 15.

NW Natural's financial derivatives policy sets forth the guidelines for using selected derivative products to support prudent risk management strategies within designated parameters. NW Natural's objective for using derivatives is to decrease the volatility of gas prices, earnings, and cash flows without speculative risk. The use of derivatives is permitted only after the risk exposures have been identified, are determined not to exceed acceptable tolerance levels, and are determined necessary to support normal business activities. NW Natural does not enter into derivative instruments for trading purposes. All derivatives for NW Holdings are currently held at NW Natural.

Fair Value

In accordance with fair value accounting, we use the following fair value hierarchy for determining inputs for our debt, pension plan assets, and derivative fair value measurements:

- Level 1: Valuation is based on quoted prices for identical instruments traded in active markets;
- Level 2: Valuation is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market; and

- Level 3: Valuation is generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect our own estimates of assumptions market participants would use in valuing the asset or liability.

When developing fair value measurements, it is our policy to use quoted market prices whenever available or to maximize the use of observable inputs and minimize the use of unobservable inputs when quoted market prices are not available. Fair values are primarily developed using industry-standard models that consider various inputs including: (a) quoted future prices for commodities; (b) forward currency prices; (c) time value; (d) volatility factors; (e) current market and contractual prices for underlying instruments; (f) market interest rates and yield curves; (g) credit spreads; and (h) other relevant economic measures. NW Natural considers liquid points for natural gas hedging to be those points for which there are regularly published prices in a nationally recognized publication or where the instruments are traded on an exchange.

Goodwill

NW Holdings, through its wholly-owned subsidiary NWN Water and NW Water's wholly-owned subsidiaries, has completed various acquisitions that resulted in the recognition of goodwill. Goodwill is measured as the excess of the acquisition-date fair value of the consideration transferred over the acquisition-date fair value of the net identifiable assets assumed. Adjustments are recorded during the measurement period to finalize the allocation of the purchase price. The carrying value of goodwill is reviewed annually during the fourth quarter using balances as of October 1, or whenever events or changes in circumstance indicate that such carrying values may not be recoverable. The goodwill assessment policy begins with a qualitative analysis in which events and circumstances are evaluated, including macroeconomic conditions, industry and market conditions, regulatory environments, and overall financial performance of the reporting unit. If the qualitative assessment indicates that the carrying value may be at risk of recoverability, a quantitative evaluation is performed to measure the carrying value of the goodwill against the fair value of the reporting unit. The reporting unit is determined primarily based on current operating segments and the level of review provided by the Chief Operating Decision Maker (CODM) and/or segment management on the operating segment's financial results. Reporting units are evaluated periodically for changes in the corporate environment.

As of December 31, 2018, NW Holdings had goodwill of \$9.0 million. All of NW Holdings' goodwill was acquired in 2018 through the business combinations completed by NWN Water and its wholly-owned subsidiaries. No impairment charges were recorded as a result of the fourth quarter goodwill impairment assessment.

Income Taxes

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the enactment date period unless, for NW Natural, a regulatory Order specifies deferral of the effect of the change in tax rates over a longer period of time.

For NW Natural, deferred income tax assets and liabilities are also recognized for temporary differences where the deferred income tax benefits or expenses have previously been flowed through in the ratemaking process of the NGD business. Regulatory tax assets and liabilities are recorded on these deferred tax assets and liabilities to the extent it is believed they will be recoverable from or refunded to customers in future rates.

Deferred investment tax credits on NGD plant additions, which reduce income taxes payable, are deferred for financial statement purposes and amortized over the life of the related plant.

Interest and penalties related to unrecognized tax benefits, if any, are recognized within income tax expense and accrued interest and penalties are recognized within the related tax liability line in the consolidated balance sheets. No accrued

3. EARNINGS PER SHARE

Basic earnings or loss per share are computed using NW Holdings' net income or loss and the weighted average number of common shares outstanding for each period presented. Diluted earnings per share are computed in the same manner, except it uses the weighted average number of common shares outstanding plus the effects of the

interest or penalties for uncertain tax benefits have been recorded. See Note 10.

Environmental Contingencies

Loss contingencies are recorded as liabilities when it is probable a liability has been incurred and the amount of the loss is reasonably estimable in accordance with accounting standards for contingencies. Estimating probable losses requires an analysis of uncertainties that often depend upon judgments about potential actions by third parties. Accruals for loss contingencies are recorded based on an analysis of potential results.

With respect to environmental liabilities and related costs, estimates are developed based on a review of information available from numerous sources, including completed studies and site specific negotiations. NW Natural's policy is to accrue the full amount of such liability when information is sufficient to reasonably estimate the amount of probable liability. When information is not available to reasonably estimate the probable liability, or when only the range of probable liabilities can be estimated and no amount within the range is more likely than another, it is our policy to accrue at the low end of the range. Accordingly, due to numerous uncertainties surrounding the course of environmental remediation and the preliminary nature of several site investigations, in some cases, it may not be possible to reasonably estimate the high end of the range of possible loss. In those cases, the nature of the potential loss and the fact that the high end of the range cannot be reasonably estimated is disclosed. See Note 17.

Subsequent Events

We monitor significant events occurring after the balance sheet date and prior to the issuance of the financial statements to determine the impacts, if any, of events on the financial statements to be issued. We do not have any subsequent events to report.

assumed exercise of stock options and the payment of estimated stock awards from other stock-based compensation plans that are outstanding at the end of each period presented. Antidilutive stock awards are excluded from the calculation of diluted earnings or loss per common share.

NW Holdings' diluted earnings or loss per share are calculated as follows:

<i>In thousands, except per share data</i>	2018	2017	2016
Net income from continuing operations	\$ 67,311	\$ 72,073	\$ 62,419
Loss from discontinued operations, net of tax	(2,742)	(127,696)	(3,524)
Net income (loss)	\$ 64,569	\$ (55,623)	\$ 58,895
Average common shares outstanding - basic	28,803	28,669	27,647
Additional shares for stock-based compensation plans (See Note 7)	70	84	132
Average common shares outstanding - diluted	28,873	28,753	27,779
Earnings (loss) from continuing operations per share of common stock:			
Basic	\$ 2.34	\$ 2.51	\$ 2.26
Diluted	\$ 2.33	\$ 2.51	\$ 2.25
Loss from discontinued operations per share of common stock:			
Basic	\$ (0.10)	\$ (4.45)	\$ (0.13)
Diluted	\$ (0.09)	\$ (4.44)	\$ (0.13)
Earnings (loss) per share of common stock:			
Basic	\$ 2.24	\$ (1.94)	\$ 2.13
Diluted	\$ 2.24	\$ (1.93)	\$ 2.12
Additional information:			
Antidilutive shares	2	13	5

4. SEGMENT INFORMATION

We primarily operate in one reportable business segment, which is NW Natural's local gas distribution business and is referred to as the NGD segment. During the second quarter of 2018, we moved forward with our long-term strategic plans, which include a shift away from the California gas storage business, by entering into a Purchase and Sale Agreement that provides for the sale of all of the membership interests in Gill Ranch, subject to various regulatory approvals and closing conditions. As such, we reevaluated reportable segments and concluded that the remaining gas storage activities no longer meet the requirements of a reportable segment. Interstate Storage Services and asset management activities at the Mist gas storage facility are now reported as other under NW Natural. NW Natural and NW Holdings also have investments and business activities not specifically related to NGD, which are aggregated and reported as other and described below for each entity.

No individual customer accounts for over 10% of NW Holdings' or NW Natural's operating revenues.

Natural Gas Distribution

The NGD segment is a regulated utility principally engaged in the purchase, sale, and delivery of natural gas and related services to customers in Oregon and southwest Washington. With regulated utility operations, NW Natural is responsible for building and maintaining a safe and reliable pipeline distribution system, purchasing sufficient gas supplies from producers and marketers, contracting for firm and interruptible transportation of gas over interstate pipelines to bring gas from the supply basins into its service territory, and re-selling the gas to customers subject to rates, terms, and conditions approved by the OPUC or WUTC. NGD also includes taking customer-owned gas and transporting it from interstate pipeline connections, or city gates, to the customers' end-use facilities for a fee, which is approved by the OPUC or WUTC. Approximately 89% of NGD customers are located in Oregon and 11% in Washington. On an annual basis, residential and

commercial customers typically account for around 60% of total NGD volumes delivered and around 90% of NGD margin. Industrial customers largely account for the remaining volumes and NGD margin. A small amount of the margin is also derived from miscellaneous services, gains or losses from an incentive gas cost sharing mechanism, and other service fees.

Industrial sectors served by NW Natural include: pulp, paper, and other forest products; the manufacture of electronic, electrochemical and electrometallurgical products; the processing of farm and food products; the production of various mineral products; metal fabrication and casting; the production of machine tools, machinery, and textiles; the manufacture of asphalt, concrete, and rubber; printing and publishing; nurseries; and government and educational institutions.

In addition to NW Natural's local gas distribution business, the NGD segment also includes the portion of the Mist underground storage facility used to serve NGD customers, the North Mist gas storage expansion in Oregon, and NWN Gas Reserves, which is a wholly-owned subsidiary of Energy Corp.

NW Natural

NW Natural activities included in Other includes Interstate Storage Services and third-party asset management services for the Mist facility in Oregon, appliance retail center operations, and corporate operating and non-operating revenues and expenses that cannot be allocated to NGD operations.

Earnings from Interstate Storage Services assets are primarily related to firm storage capacity revenues. Earnings from the Mist facility also include revenue, net of amounts shared with NGD customers, from management of NGD assets at Mist and upstream pipeline capacity when not needed to serve NGD customers. Historically, under the Oregon sharing mechanism, NW Natural retained 80% of

the pre-tax income from these services when the costs of the capacity were not included in NGD rates, or 33% of the pre-tax income when the costs have been included in these rates. The remaining 20% and 67%, respectively, were recorded to a deferred regulatory account for crediting back to NGD customers. After November 1, 2018 NW Natural retains 10% of the pre-tax income when the costs have been included in these rates, and the remaining 90% is recorded to a deferred regulatory account for crediting back to NGD customers.

NW Holdings

NW Holdings' activities included in Other includes all remaining activities not associated with NW Natural, specifically NWN Water, which consolidates the water operations and is pursuing other investments in the water sector itself and through its wholly-owned subsidiaries, NWN Gas Storage, a wholly-owned subsidiary of NWN Energy, NWN Energy's equity investment in TWH, which is pursuing development of a cross-Cascades transmission

pipeline project (TWP), and other pipeline assets in NNG Financial. For more information on TWP, see Note 13. Other also includes corporate revenues and expenses that cannot be allocated to other operations.

All prior period amounts have been retrospectively adjusted to reflect the change in reportable segments and the designation of Gill Ranch as a discontinued operation for NW Holdings, and the designation of subsidiaries previously owned by NW Natural that are now owned by NW Holdings as discontinued operations for NW Natural.

Segment Information Summary

Inter-segment transactions were immaterial for the periods presented. The following table presents summary financial information concerning the reportable segments of continued operations. See Note 18 for information regarding discontinued operations for NW Holdings and NW Natural.

<i>In thousands</i>	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
2018					
Operating revenues	\$ 680,648	\$ 24,923	\$ 705,571	\$ 572	\$ 706,143
Depreciation and amortization	83,732	1,254	84,986	170	85,156
Income (loss) from operations	118,095	15,004	133,099	(937)	132,162
Net income (loss) from continuing operations	57,491	10,558	68,049	(738)	67,311
Capital expenditures	212,323	2,005	214,328	308	214,636
Total assets at December 31, 2018 ⁽²⁾	3,141,969	50,767	3,192,736	36,657	3,229,393
2017					
Operating revenues	\$ 732,942	\$ 22,096	\$ 755,038	\$ —	\$ 755,038
Depreciation and amortization	79,734	1,290	81,024	29	81,053
Income (loss) from operations	138,450	12,472	150,922	(20)	150,902
Net income from continuing operations ⁽¹⁾	60,509	11,211	71,720	353	72,073
Capital expenditures	211,672	1,653	213,325	—	213,325
Total assets at December 31, 2017 ⁽²⁾	2,961,326	50,471	3,011,797	14,075	3,025,872
2016					
Operating revenues	\$ 650,477	\$ 17,472	\$ 667,949	\$ 224	\$ 668,173
Depreciation and amortization	76,289	1,286	77,575	29	77,604
Income (loss) from operations	137,178	14,109	151,287	(570)	150,717
Net income (loss) from continuing operations ⁽³⁾	54,567	8,268	62,835	(416)	62,419
Capital expenditures	138,074	283	138,357	—	138,357
Total assets at December 31, 2016 ⁽²⁾	2,806,627	48,719	2,855,346	14,040	2,869,386

⁽¹⁾ Includes \$1.0 million of tax expense in NGD, \$4.0 million of tax benefit in Other (NW Natural), and \$0.4 million of tax benefit in Other (NW Holdings) from the TCJA remeasurement for the year ended December 31, 2017.

⁽²⁾ Total assets for NW Holdings exclude assets related to discontinued operations of \$13.3 million, \$13.9 million and \$210.4 million as of December 31, 2018, 2017, and 2016, respectively. Total assets for NW Natural exclude assets related to discontinued operations of \$31.9 million and \$226.1 million as of December 31, 2017, and 2016, respectively.

⁽³⁾ Includes \$2.0 million in 2016 of after-tax regulatory environmental disallowance charges in NGD.

Natural Gas Distribution Margin

NGD margin is a financial measure used by the CODM, consisting of NGD operating revenues, reduced by the associated cost of gas, environmental recovery revenues, and revenue taxes. The cost of gas purchased for NGD customers is generally a pass-through cost in the amount of revenues billed to regulated NGD customers. Environmental recovery revenues represent collections received from customers through the environmental recovery mechanism in Oregon. These collections are offset by the amortization

of environmental liabilities, which is presented as environmental remediation expense in operating expenses. Revenue taxes are collected from NGD customers and remitted to taxing authorities. The collections from customers are offset by the expense recognition of the obligation to the taxing authority. By subtracting cost of gas, environmental remediation expense, and revenue taxes from NGD operating revenues, NGD margin provides a key metric used by the CODM in assessing the performance of the NGD segment.

The following table presents additional segment information concerning NGD margin:

<i>In thousands</i>	2018	2017	2016
NGD margin calculation:			
NGD operating revenues	\$ 680,648	\$ 732,942	\$ 650,477
Less: NGD cost of gas	255,743	325,019	260,588
Environmental remediation expense	11,127	15,291	13,298
Revenue taxes ⁽¹⁾	30,082	—	—
NGD margin	<u>\$ 383,696</u>	<u>\$ 392,632</u>	<u>\$ 376,591</u>

⁽¹⁾ The change in presentation of revenue taxes was a result of the adoption of ASU 2014-09 "Revenue From Contracts with Customers" and all related amendments on January 1, 2018. This change had no impact on NGD margin results as revenue taxes were previously presented net in NGD operating revenue. For additional information, see Note 2.

5. COMMON STOCK

As part of the reorganization of NW Holdings and NW Natural into a holding company structure effective October 1, 2018, NW Natural shareholders automatically became shareholders of NW Holdings on a one-for-one share basis with the same number of shares and same relative ownership percentage in NW Holdings as was held in NW Natural immediately prior to the reorganization.

As of December 31, 2018, NW Holdings had 100 million shares of common stock authorized. As of December 31, 2018 and 2017, NW Natural had 100 million shares of common stock authorized. As of December 31, 2018, NW Holdings had 24,339 shares reserved for issuance of common stock under the Employee Stock Purchase Plan (ESPP) and 394,204 shares reserved for issuance under the Dividend Reinvestment and Direct Stock Purchase Plan (DRPP). At NW Holdings' election, shares sold through the DRPP may be purchased in the open market or through original issuance of shares reserved for issuance under the DRPP.

The Restated Stock Option Plan (SOP) was terminated with respect to new grants in 2012; however, options granted before the Restated SOP was terminated remain outstanding until the earlier of their expiration, forfeiture, or exercise. Options are now exercisable for shares of NW Holdings common stock. There were 55,938 options outstanding at December 31, 2018, which were granted prior to termination of the plan.

During November 2016, NW Natural completed an equity issuance consisting of an offering of 880,000 shares of common stock along with a 30-day option for the underwriters to purchase an additional 132,000 shares. The offering closed on November 16, 2016 and resulted in a total issuance of 1,012,000 shares as both the initial offering and the underwriter option were fully executed. All shares

were issued on November 16, 2016 at an offering price of \$54.63 per share and resulted in total net proceeds of \$52.8 million.

Stock Repurchase Program

NW Holdings has a share repurchase program under which it may purchase its common shares on the open market or through privately negotiated transactions. NW Holdings currently has Board authorization through May 2019 to repurchase up to an aggregate of the greater of 2.8 million shares or \$100 million. No shares of common stock were repurchased pursuant to this program during the year ended December 31, 2018. Since the plan's inception in 2000 under NW Natural, a total of 2.1 million shares have been repurchased at a total cost of \$83.3 million.

The following table summarizes the changes in the number of shares of NW Holdings' common stock issued and outstanding:

<i>In thousands</i>	Shares
Balance, December 31, 2015	27,427
Sales to employees under ESPP	18
Stock-based compensation	173
Equity Issuance	1,012
Balance, December 31, 2016	28,630
Sales to employees under ESPP	18
Stock-based compensation	88
Balance, December 31, 2017	28,736
Sales to employees under ESPP	19
Stock-based compensation	64
Sales to shareholders under DRPP	61
Balance, December 31, 2018	<u>28,880</u>

6. REVENUE

The following table presents disaggregated revenue from continuing operations:

<i>In thousands</i>	Year ended December 31, 2018				
	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
Natural gas sales	\$ 670,662	\$ —	\$ 670,662	\$ —	\$ 670,662
Gas storage revenue, net	—	10,780	10,780	—	10,780
Asset management revenue, net	—	8,548	8,548	—	8,548
Appliance retail center revenue	—	5,595	5,595	—	5,595
Other revenue	—	—	—	572	572
Revenue from contracts with customers	670,662	24,923	695,585	572	696,157
Alternative revenue	8,989	—	8,989	—	8,989
Leasing revenue	997	—	997	—	997
Total operating revenues	\$ 680,648	\$ 24,923	\$ 705,571	\$ 572	\$ 706,143

NW Natural's revenue represents substantially all of NW Holdings' revenue and is recognized for both registrants when the obligation to customers is satisfied and in the amount expected to be received in exchange for transferring goods or providing services. Revenue from contracts with customers contain one performance obligation that is generally satisfied over time, using the output method based on time elapsed, due to the continuous nature of the service provided. The transaction price is determined per a set price agreed upon in the contract or dependent on regulatory tariffs. Customer accounts are settled on a monthly basis or paid at time of sale and based on historical experience. It is probable that we will collect substantially all of the consideration to which we are entitled.

NW Holdings and NW Natural do not have any material contract assets, as net accounts receivable and accrued unbilled revenue balances are unconditional and only involve the passage of time until such balances are billed and collected. NW Holdings and NW Natural do not have any material contract liabilities.

Revenue-based taxes are primarily franchise taxes, which are collected from NGD customers and remitted to taxing authorities. Beginning January 1, 2018, revenue taxes are included in operating revenues with an equal and offsetting expense recognized in operating expenses in the consolidated statements of comprehensive income.

Natural Gas Distribution

Natural gas sales. NW Natural's primary source of revenue is providing natural gas to customers in the NGD service territory, which includes residential, commercial, industrial and transportation customers. NGD revenue is generally recognized over time upon delivery of the gas commodity or service to the customer, and the amount of consideration received and recognized as revenue is dependent on the Oregon and Washington tariffs. Customer accounts are to be paid in full each month, and there is no right of return or warranty for services provided. Revenues include firm and interruptible sales and transportation services, franchise taxes recovered from the customer, late payment fees, service fees, and accruals for gas delivered but not yet billed (accrued unbilled revenue). The accrued unbilled revenue balance is based on estimates of deliveries during

the period from the last meter reading and management judgment is required for a number of factors used in this calculation, including customer use and weather factors.

We applied the significant financing practical expedient and have not adjusted the consideration NW Natural expects to receive from NGD customers for the effects of a significant financing component as all payment arrangements are settled annually. Due to the election of the right to invoice practical expedient, we do not disclose the value of unsatisfied performance obligations as of December 31, 2018.

Alternative revenue. Weather normalization (WARM) and decoupling mechanisms are considered to be alternative revenue programs. Alternative revenue programs are considered to be contracts between NW Natural and its regulator and are excluded from revenue from contracts with customers.

Leasing revenue. Leasing revenue primarily consists of rental revenue for small leases of property owned for NGD to third parties. The majority of the transactions are accounted for as operating leases and the revenue is recognized on a straight-line basis over the term of the lease agreement. Lease revenue is excluded from revenue from contracts with customers.

NW Natural Other

Gas storage revenue. NW Natural's other revenue includes gas storage activity, which includes Interstate Storage Services used to store natural gas for customers. Gas storage revenue is generally recognized over time as the gas storage service is provided to the customer and the amount of consideration received and recognized as revenue is dependent on set rates defined per the storage agreements. Noncash consideration in the form of dekatherms of natural gas is received as consideration for providing gas injection services to gas storage customers. This noncash consideration is measured at fair value using the average spot rate. Customer accounts are generally paid in full each month, and there is no right of return or warranty for services provided. Revenues include firm and interruptible storage services, net of the profit sharing amount refunded to NGD customers.

Asset management revenue. Asset management revenue is generally recognized over time using a straight-line approach over the term of each contract, and the amount of consideration received and recognized as revenue is dependent on a variable pricing model. Variable revenues earned above guaranteed amounts are estimated and recognized at the end of each period using the most likely amount approach. Revenues include the optimization of the storage assets and pipeline capacity provided, net of the profit sharing amount refunded to NGD customers. Asset management accounts are settled on a monthly basis.

As of December 31, 2018, unrecognized revenue for the fixed component of the transaction price related to gas storage and asset management revenue was approximately \$56.0 million. Of this amount, approximately \$14.1 million will be recognized in 2019, \$11.7 million in 2020, \$10.7 million in 2021, \$7.0 million in 2022, \$5.8 million in 2023, and \$6.7 million thereafter. The amounts presented here are calculated using current contracted rates. On October 12, 2018, NW Natural filed a rate petition with FERC for revised maximum cost-based rates, which incorporated the new federal corporate income tax rate. The revised rates became effective November 1, 2018.

Appliance retail center revenue. NW Natural owns and operates an appliance store that is open to the public, where customers can purchase natural gas home appliances. Revenue from the sale of appliances is recognized at the

point in time in which the appliance is transferred to the third party responsible for delivery and installation services and when the customer has legal title to the appliance. It is required that the sale be paid for in full prior to transfer of legal title. The amount of consideration received and recognized as revenue varies with changes in marketing incentives and discounts offered to customers.

NW Holdings Other

NW Holdings' primary source of other revenue is providing water distribution services to customers. Water distribution revenue is generally recognized over time upon delivery of the water commodity or service to the customer, and the amount of consideration received and recognized as revenue is dependent on the Oregon, Washington and Idaho tariffs. Customer accounts are to be paid in full each month, and there is no right of return or warranty for services provided.

We applied the significant financing practical expedient and have not adjusted the consideration we expect to receive from water distribution customers for the effects of a significant financing component as all payment arrangements are settled annually. Due to the election of the right to invoice practical expedient, we do not disclose the value of unsatisfied performance obligations as of December 31, 2018.

7. STOCK-BASED COMPENSATION

Stock-based compensation plans are designed to promote stock ownership in NW Holdings by employees and officers. These compensation plans include a Long Term Incentive Plan (LTIP), an ESPP, and a Restated SOP.

Long Term Incentive Plan

The LTIP is intended to provide a flexible, competitive compensation program for eligible officers and key employees. Under the LTIP, shares of NW Holdings common stock are authorized for equity incentive grants in the form of stock, restricted stock, restricted stock units, stock options, or performance shares. An aggregate of 1,100,000 shares were authorized for issuance as of December 31, 2018. Shares awarded under the LTIP may be purchased on the open market or issued as original shares.

Of the 1,100,000 shares of common stock authorized for LTIP awards at December 31, 2018, there were 574,787 shares available for issuance under any type of award. This assumes market, performance, and service-based grants currently outstanding are awarded at the target level. There were no outstanding grants of restricted stock or stock options under the LTIP at December 31, 2018 or 2017. The LTIP stock awards are compensatory awards for which compensation expense is based on the fair value of stock awards, with expense being recognized over the performance and vesting period of the outstanding awards. Forfeitures are recognized as they occur.

Performance Shares

Since the LTIP's inception in 2001, performance shares, which incorporate market, performance, and service-based factors, have been granted annually with three-year performance periods. The following table summarizes performance share expense information:

<i>Dollars in thousands</i>	Shares ⁽¹⁾	Expense During Award Year ⁽²⁾	Total Expense for Award
Estimated award:			
2016-2018 grant ⁽³⁾	28,218	\$ 598	\$ 1,413
Actual award:			
2015-2017 grant	18,304	(346)	1,169
2014-2016 grant	31,388	168	1,685

- (1) In addition to common stock shares, a participant also receives a dividend equivalent cash payment equal to the number of shares of common stock received on the award payout multiplied by the aggregate cash dividends paid per share during the performance period.
- (2) Amount represents the expense recognized in the third year of the vesting period noted above. For the 2015-2017 grant, targets were not met and expense was reversed during 2017 that had been previously recognized.
- (3) This represents the estimated number of shares to be awarded as of December 31, 2018 as certain performance share measures have been achieved. Amounts are subject to change with final payout amounts authorized by the Board of Directors in February 2019.

The aggregate number of performance shares granted and outstanding at the target and maximum levels were as follows:

Performance Period	Performance Share Awards Outstanding		2018	Cumulative Expense
	Target	Maximum	Expense	December 31, 2018
2016-18	24,421	48,842	\$ 598	\$ 1,413
2017-19	31,372	62,744	458	1,400
2018-20	—	—	—	—
Total	55,793	111,586	\$ 1,056	

For the 2016-2018 performance period, performance share awards are based on EPS and Return on Invested Capital (ROIC) factors and a total shareholder return (TSR factor) relative to the Dow Jones U.S. Gas Distribution peer group over the three-year performance period. Additionally, these plans are based on performance results achieved relative to specific core and non-core strategies (strategic factor). For the 2017-2019 performance period, performance share awards are based on the achievement of EPS and ROIC factors, which can be modified by a TSR factor relative to the performance of the Russell 2500 Utilities Index over the three-year performance period and a growth modifier based on accumulative EBITDA measure. For the 2018-2020 performance period, performance share awards are based on the achievement of a three-year ROIC threshold that must be met and a cumulative EPS factor, which can be modified by a TSR factor relative to the performance of the Russell 2500 Utilities Index over the three-year performance period. The 2018-2020 performance period allows for one of the performance factors to remain variable until the first quarter of the third year of the award period. As the performance factor will not be approved until the first quarter of 2020, there is not a mutual understanding of the award's key terms and conditions between NW Natural and the participants as of December 31, 2018, and therefore, no expense was recognized for the 2018-2020 performance period. NW Natural will calculate the grant date fair value and recognize expense once the final performance factor has been approved. If the target was achieved for the 2018 award, NW Holdings would grant 34,702 shares in the first quarter of 2020.

Compensation expense is recognized in accordance with accounting standards for stock-based compensation and calculated based on performance levels achieved and an estimated fair value using the Monte-Carlo method. The weighted-average grant date fair value of nonvested shares at December 31, 2018 and 2017 was \$57.05 and \$56.40 per share, respectively. The weighted-average grant date fair value of shares vested during the year was \$56.23 per share and there were no performance shares granted during the year for accounting purposes. As of December 31, 2018, there was \$1.1 million of unrecognized compensation expense related to the nonvested portion of performance awards expected to be recognized through 2019.

Restricted Stock Units

In 2012, RSUs began being granted under the LTIP instead of stock options under the Restated SOP. Generally, the RSUs awarded are forfeitable and include a performance-

based threshold as well as a vesting period of four years from the grant date. Upon vesting, the RSU holder is issued one share of common stock plus a cash payment equal to the total amount of dividends paid per share between the grant date and vesting date of that portion of the RSU. The fair value of an RSU is equal to the closing market price of NW Holdings' common stock on the grant date. During 2018, total RSU expense was \$1.8 million compared to \$1.6 million in 2017 and \$1.5 million in 2016. As of December 31, 2018, there was \$3.1 million of unrecognized compensation cost from grants of RSUs, which is expected to be recognized over a period extending through 2023.

Information regarding the RSU activity is summarized as follows:

	Number of RSUs	Weighted - Average Price Per RSU
Nonvested, December 31, 2015	88,587	\$ 44.78
Granted	40,271	54.36
Vested	(29,488)	45.56
Forfeited	(9,397)	44.59
Nonvested, December 31, 2016	89,973	48.85
Granted	32,168	60.51
Vested	(35,341)	47.07
Forfeited	(2,278)	53.78
Nonvested, December 31, 2017	84,522	53.90
Granted	32,450	57.59
Vested	(32,689)	50.75
Forfeited	(1,603)	59.95
Nonvested, December 31, 2018	82,680	\$ 56.47

Restated Stock Option Plan

The NW Natural Restated SOP was terminated for new option grants in 2012; however, options granted before the plan terminated remain outstanding until the earlier of their expiration, forfeiture, or exercise and are now exercisable for shares of NW Holdings common stock. Any new grants of stock options will be made under NW Holdings' LTIP, however, no option grants have been awarded since 2012 and all stock options were vested as of December 31, 2015.

Options under the Restated SOP were granted to officers and key employees designated by a committee of the Board of Directors. All options were granted at an option price equal to the closing market price on the date of grant and may be exercised for a period of up to 10 years and seven days from the date of grant. Option holders may exchange shares they have owned for at least six months, valued at the current market price, to purchase shares at the option price.

Information regarding the Restated SOP activity is summarized as follows:

	Option Shares	Weighted - Average Price Per Share	Intrinsic Value (In millions)
Balance outstanding, December 31, 2015	352,688	\$ 44.00	\$ 2.3
Exercised	(172,525)	43.61	2.0
Forfeited	—	n/a	n/a
Balance outstanding, December 31, 2016	180,163	44.38	2.8
Exercised	(88,275)	44.33	1.8
Forfeited	(200)	41.15	n/a
Balance outstanding and exercisable, December 31, 2017	91,688	44.43	1.4
Exercised	(35,450)	43.61	0.8
Expired	(300)	43.29	n/a
Balance outstanding and exercisable, December 31, 2018	55,938	\$ 44.96	\$ 0.9

During 2018, cash of \$1.5 million was received for stock options exercised and \$0.2 million related tax benefit was recognized. The weighted-average remaining life of options exercisable and outstanding at December 31, 2018 was 1.69 years.

Employee Stock Purchase Plan

NW Holdings' ESPP allows employees of NW Holdings, NW Natural and certain designated subsidiaries to purchase common stock at 85% of the closing price on the trading day immediately preceding the initial offering date, which is set annually. Each eligible employee may purchase up to \$21,205 worth of stock through payroll deductions over a period defined by the Board of Directors, with shares issued at the end of the subscription period.

Stock-Based Compensation Expense

Stock-based compensation expense is recognized as operations and maintenance expense or is capitalized as part of construction overhead at the entity at which the award recipient is employed. The following table summarizes the NW Holdings' financial statement impact, substantially all of which was recorded at NW Natural, of stock-based compensation under the LTIP, Restated SOP and ESPP:

<i>In thousands</i>	2018	2017	2016
Operations and maintenance expense, for stock-based compensation	\$ 2,489	\$ 2,354	\$ 2,370
Income tax benefit	(659)	(930)	(924)
Net stock-based compensation effect on net income (loss)	\$ 1,830	\$ 1,424	\$ 1,446
Amounts capitalized for stock-based compensation	\$ 531	\$ 528	\$ 554

8. DEBT

Short-Term Debt

The primary source of short-term liquidity for NW Holdings is cash balances, dividends from its operating subsidiaries, in particular NW Natural, available cash from a multi-year credit facility, and short-term credit facilities it may enter into from time to time.

The primary source of short-term liquidity for NW Natural is from the sale of commercial paper and bank loans. NW Natural has a commercial paper program, and NW Holdings and NW Natural have separate bank facilities. In addition to issuing commercial paper or bank loans to meet working capital requirements, including seasonal requirements to finance gas purchases and accounts receivable, short-term debt may also be used to temporarily fund capital requirements. For NW Natural, commercial paper and bank loans are periodically refinanced through the sale of long-term debt or equity contributions from NW Holdings. NW Natural's commercial paper is sold through two commercial banks under an issuing and paying agency agreement and is supported by one or more unsecured revolving credit facilities. See "Credit Agreements" below.

At December 31, 2018 and 2017, NW Holdings had short-term debt outstanding of \$217.6 million and \$54.2 million, respectively, substantially all of which was recorded at NW Natural and was comprised primarily of NW Natural's commercial paper. The weighted average interest rate of commercial paper outstanding at December 31, 2018 and 2017 was 3.0% and 1.9%, respectively.

The carrying cost of commercial paper approximates fair value using Level 2 inputs, due to the short-term nature of the notes. See Note 2 for a description of the fair value hierarchy. At December 31, 2018, NW Natural's commercial paper had a maximum remaining maturity of 46 days and an average remaining maturity of 22 days.

Credit Agreements

NW Holdings

In October 2018, NW Holdings entered into a \$100.0 million credit agreement, with a feature that allows it to request increases in the total commitment amount, up to a maximum of \$150.0 million. The maturity date of the agreement is October 2, 2023, with available extensions of commitments for two additional one-year periods, subject to lender approval.

The NW Holdings credit agreement permits the issuance of letters of credit in an aggregate amount of up to \$40.0 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. The credit agreement requires NW Holdings to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Holdings was in compliance with this covenant at December 31, 2018.

The agreement also requires NW Holdings to maintain debt ratings (which are defined by a formula using NW Natural's credit ratings in the event NW Holdings does not have a

credit rating) with Standard & Poor's (S&P) and Moody's Investors Service, Inc. (Moody's) and notify the lenders of any change in its senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Holdings' debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the credit agreement. Rather, interest rates on any loans outstanding under the credit agreements are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the credit agreements when ratings are changed. NW Holdings does not currently maintain ratings with S&P or Moody's.

There were no outstanding balances and no letters of credit issued or outstanding under the NW Holdings agreement at December 31, 2018. NW Holdings had \$2.8 million of letters of credit issued and outstanding, separate from the aforementioned credit agreement, at December 31, 2018.

NW Natural

In October 2018, NW Natural entered into a new multi-year credit agreement for unsecured revolving loans totaling \$300.0 million, with a feature that allows NW Natural to request increases in the total commitment amount, up to a maximum of \$450.0 million. The maturity date of the agreement is October 2, 2023 with available extensions of commitments for two additional one-year periods, subject to lender approval. The new credit agreement is substantially similar to the prior credit agreement which was terminated upon the closing of the New Credit Agreement. The new credit agreement permits the issuance of letters of credit in an aggregate amount of up to \$60.0 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. There were no outstanding balances under NW Natural's prior credit agreement or the new credit agreement and no letters of credit issued or outstanding at December 31, 2018 and 2017.

NW Natural's prior credit agreement and the new credit agreement require NW Natural to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Natural was in compliance with this covenant at December 31, 2018 and 2017.

The new credit agreement also requires NW Natural to maintain credit ratings with S&P and Moody's and notify the lenders of any change in NW Natural's senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Natural's debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the new credit agreement. Rather, interest rates on any loans outstanding under the new credit agreement are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the new credit agreement when ratings are changed.

Long-Term Debt

NW Natural's issuance of FMBs, which includes NW Natural's medium-term notes, under the Mortgage and Deed of Trust (Mortgage) is limited by eligible property, adjusted net earnings, and other provisions of the Mortgage. The Mortgage constitutes a first mortgage lien on substantially all of NW Natural's NGD property.

Maturities and Outstanding Long-Term Debt

Retirement of long-term debt for each of the annual periods through December 31, 2023 and thereafter are as follows:

<i>In thousands</i>	Long-term debt maturities
2019	\$ 30,000
2020	75,000
2021	60,000
2022	—
2023	90,000
Thereafter	484,700

The following table presents debt outstanding as of December 31:

<i>In thousands</i>	2018	2017
NW Natural		
<u>First Mortgage Bonds:</u>		
6.600% Series due 2018	\$ —	\$ 22,000
1.545% Series due 2018	—	75,000
8.310% Series due 2019	10,000	10,000
7.630% Series due 2019	20,000	20,000
5.370% Series due 2020	75,000	75,000
9.050% Series due 2021	10,000	10,000
3.176% Series due 2021	50,000	50,000
3.542% Series due 2023	50,000	50,000
5.620% Series due 2023	40,000	40,000
7.720% Series due 2025	20,000	20,000
6.520% Series due 2025	10,000	10,000
7.050% Series due 2026	20,000	20,000
3.211% Series due 2026	35,000	35,000
7.000% Series due 2027	20,000	20,000
2.822% Series due 2027	25,000	25,000
6.650% Series due 2027	19,700	19,700
6.650% Series due 2028	10,000	10,000
7.740% Series due 2030	20,000	20,000
7.850% Series due 2030	10,000	10,000
5.820% Series due 2032	30,000	30,000
5.660% Series due 2033	40,000	40,000
5.250% Series due 2035	10,000	10,000
4.000% Series due 2042	50,000	50,000
4.136% Series due 2046	40,000	40,000
3.685% Series due 2047	75,000	75,000
4.110% Series due 2048	50,000	—
	739,700	786,700
Less: current maturities	30,000	97,000
Total long-term debt	\$ 709,700	\$ 689,700
Other NW Holdings Entities:		
Long-term debt obligations	\$ 2,113	\$ —
NW Holdings:		
Long-term debt, gross	\$ 741,813	\$ 786,700
Less: current maturities	30,000	97,000
Total long-term debt	\$ 711,813	\$ 689,700

First Mortgage Bonds

In September 2018, NW Natural issued \$50.0 million of FMBs with a coupon rate of 4.110%, due in 2048.

In September 2017, NW Natural issued \$100.0 million of FMBs consisting of \$25.0 million with a coupon rate of 2.822% and a maturity date in 2027 and \$75.0 million with a coupon rate of 3.685% and a maturity date in 2047.

Retirements of Long-Term Debt

In March 2018, NW Natural retired \$22.0 million of FMBs with a coupon rate of 6.600%, and retired \$75.0 million of FMBs with a coupon rate of 1.545% in December 2018.

In August 2017, NW Natural retired \$40.0 million of FMBs with a coupon rate of 7.000%.

Fair Value of Long-Term Debt

NW Holdings' and NW Natural's outstanding debt does not trade in active markets. The fair value of debt is estimated using natural gas distribution companies with similar credit ratings, terms, and remaining maturities to NW Holdings' and NW Natural's debt that actively trade in public markets. Substantially all outstanding debt at NW Holdings is comprised of NW Natural debt. These valuations are based on Level 2 inputs as defined in the fair value hierarchy. See Note 2.

The following table provides an estimate of the fair value of NW Natural's long-term debt, including current maturities of long-term debt, using market prices in effect on the valuation date:

<i>In thousands</i>	December 31,	
	2018	2017
Gross long-term debt	\$ 739,700	\$ 786,700
Unamortized debt issuance costs	(5,577)	(6,813)
Carrying amount	\$ 734,123	\$ 779,887
Estimated fair value	\$ 760,222	\$ 853,339

9. PENSION AND OTHER POSTRETIREMENT BENEFIT COSTS

NW Natural maintains a qualified non-contributory defined benefit pension plan, non-qualified supplemental pension plans for eligible executive officers and other key employees, and other postretirement employee benefit plans. NW Natural also has a qualified defined contribution plan (Retirement K Savings Plan) for all eligible employees. The qualified defined benefit pension plan and Retirement K Savings Plan have plan assets, which are held in qualified trusts to fund retirement benefits.

Effective January 1, 2007 and 2010, the qualified defined benefit pension plans and postretirement benefits for non-union employees and union employees, respectively, were closed to new participants.

Non-union and union employees hired or re-hired after December 31, 2006 and 2009, respectively, and employees of NW Natural subsidiaries are provided an enhanced Retirement K Savings Plan benefit.

The following table provides a reconciliation of the changes in NW Natural's benefit obligations and fair value of plan assets, as applicable, for NW Natural's pension and other postretirement benefit plans, excluding the Retirement K Savings Plan, and a summary of the funded status and amounts recognized in NW Holdings' and NW Natural's consolidated balance sheets as of December 31:

<i>In thousands</i>	Postretirement Benefit Plans			
	Pension Benefits		Other Benefits	
	2018	2017	2018	2017
Reconciliation of change in benefit obligation:				
Obligation at January 1	\$ 486,289	\$ 457,839	\$ 28,927	\$ 29,395
Service cost	7,185	7,090	282	341
Interest cost	16,991	18,111	964	1,141
Net actuarial (gain) loss	(32,979)	34,829	(327)	(213)
Benefits paid ⁽¹⁾	(21,918)	(31,580)	(1,674)	(1,737)
Obligation at December 31	<u>\$ 455,568</u>	<u>\$ 486,289</u>	<u>\$ 28,172</u>	<u>\$ 28,927</u>
Reconciliation of change in plan assets:				
Fair value of plan assets at January 1	\$ 287,925	\$ 257,714	\$ —	\$ —
Actual return on plan assets	(25,925)	40,308	—	—
Employer contributions	17,715	21,483	1,674	1,737
Benefits paid ⁽¹⁾	(21,918)	(31,580)	(1,674)	(1,737)
Fair value of plan assets at December 31	<u>\$ 257,797</u>	<u>\$ 287,925</u>	<u>\$ —</u>	<u>\$ —</u>
Funded status at December 31	<u>\$ (197,771)</u>	<u>\$ (198,364)</u>	<u>\$ (28,172)</u>	<u>\$ (28,927)</u>

⁽¹⁾ In 2017, NW Natural completed a partial buy-out of its qualified defined benefit pension plan in which \$9.3 million of plan assets and \$8.7 million of liabilities were transferred to an insurer to provide annuities for buy-out plan participants.

NW Natural's qualified defined benefit pension plan had a projected benefit obligation of \$420.2 million and \$449.7 million at December 31, 2018 and 2017, respectively, and fair values of plan assets of \$257.8 million and \$287.9 million, respectively. The plan had an accumulated benefit obligation of \$385.9 million and \$410.3 million at December 31, 2018 and 2017, respectively.

The following table presents amounts realized through regulatory assets or in other comprehensive loss (income) for the years ended December 31:

<i>In thousands</i>	Regulatory Assets						Other Comprehensive Loss (Income)		
	Pension Benefits			Other Postretirement Benefits			Pension Benefits		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Net actuarial loss (gain)	\$ 14,261	\$ 12,177	\$ 14,005	\$ (327)	\$ (214)	\$ (1,488)	\$ (677)	\$ 2,777	\$ (1,196)
Settlement Loss	—	—	—	—	—	—	—	—	193
Amortization of:									
Prior service cost	(42)	(127)	(230)	468	468	468	—	—	—
Actuarial loss	(18,761)	(14,802)	(13,238)	(448)	(696)	(705)	(1,052)	(946)	1,386
Total	<u>\$ (4,542)</u>	<u>\$ (2,752)</u>	<u>\$ 537</u>	<u>\$ (307)</u>	<u>\$ (442)</u>	<u>\$ (1,725)</u>	<u>\$ (1,729)</u>	<u>\$ 1,831</u>	<u>\$ 383</u>

The following table presents amounts recognized in regulatory assets and accumulated other comprehensive loss (AOCL) at December 31:

<i>In thousands</i>	Regulatory Assets				AOCL	
	Pension Benefits		Other Postretirement Benefits		Pension Benefits	
	2018	2017	2018	2017	2018	2017
Prior service cost (credit)	\$ 7	\$ 49	\$ (1,738)	\$ (2,206)	\$ —	\$ —
Net actuarial loss	170,535	175,035	6,189	6,964	11,537	13,266
Total	<u>\$ 170,542</u>	<u>\$ 175,084</u>	<u>\$ 4,451</u>	<u>\$ 4,758</u>	<u>\$ 11,537</u>	<u>\$ 13,266</u>

The following table presents amounts recognized by NW Holdings and NW Natural in AOCL and the changes in AOCL related to NW Natural's non-qualified employee benefit plans:

<i>In thousands</i>	Year Ended December 31,	
	2018	2017
Beginning balance	\$ (8,438)	\$ (6,951)
Amounts reclassified to AOCL	642	(2,794)
Amounts reclassified from AOCL:		
Amortization of actuarial losses	1,052	946
Total reclassifications before tax	1,694	(1,848)
Tax expense (benefit)	(444)	361
Total reclassifications for the period	1,250	(1,487)
Ending balance	<u>\$ (7,188)</u>	<u>\$ (8,438)</u>

In 2019, NW Natural will amortize an estimated \$13.7 million from regulatory assets to net periodic benefit costs, consisting of \$14.2 million of actuarial losses offset by \$0.5 million of prior service credits. A total of \$0.6 million will be amortized from AOCL to earnings related to actuarial losses in 2019.

The assumed discount rate for NW Natural's pension plan and other postretirement benefit plans was determined independently based on the FTSE Above Median Curve (discount rate curve), which uses high quality corporate bonds rated AA- or higher by S&P or Aa3 or higher by Moody's. The discount rate curve was applied to match the estimated cash flows in each of the plans to reflect the timing and amount of expected future benefit payments for these plans.

The assumed expected long-term rate of return on plan assets for NW Natural's qualified pension plan was developed using a weighted-average of the expected returns for the target asset portfolio. In developing the expected long-term rate of return assumption, consideration

was given to the historical performance of each asset class in which the plan's assets are invested and the target asset allocation for plan assets.

The investment strategy and policies for qualified pension plan assets held in the retirement trust fund were approved by the NW Natural Retirement Committee, which is composed of senior management with the assistance of an outside investment consultant. The policies set forth the guidelines and objectives governing the investment of plan assets. Plan assets are invested for total return with appropriate consideration for liquidity, portfolio risk, and return expectations. All investments are expected to satisfy the prudent investments rule under the Employee Retirement Income Security Act of 1974. The approved asset classes may include cash and short-term investments, fixed income, common stock and convertible securities, absolute and real return strategies, and real estate. Plan assets may be invested in separately managed accounts or in commingled or mutual funds. Investment re-balancing takes place periodically as needed, or when significant cash flows occur, in order to maintain the allocation of assets

within the stated target ranges. The retirement trust fund is not currently invested in NW Holdings or NW Natural securities.

The following table presents the NW Natural pension plan asset target allocation at December 31, 2018:

Asset Category	Target Allocation
Long government/credit	20%
U.S. large cap equity	18
Non-U.S. equity	18
Absolute return strategies	12
U.S. small/mid cap equity	10
Real estate funds	7
High yield bonds	5
Emerging markets equity	5
Emerging market debt	5

Non-qualified supplemental defined benefit plan obligations were \$35.4 million and \$36.6 million at December 31, 2018 and 2017, respectively. These plans are not subject to regulatory deferral, and the changes in actuarial gains and losses, prior service costs, and transition assets or obligations are recognized in AOCL, net of tax until they are amortized as a component of net periodic benefit cost.

The service cost component of net periodic benefit cost for NW Natural pension and other postretirement benefit plans is recognized in operations and maintenance expense in the consolidated statements of comprehensive income. The other non-service cost components are recognized in other income (expense), net in the consolidated statements of comprehensive income. The following table provides the components of net periodic benefit cost for NW Natural's pension and other postretirement benefit plans for the years ended December 31:

<i>In thousands</i>	Pension Benefits			Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Service cost	\$ 7,185	\$ 7,090	\$ 7,083	\$ 282	\$ 341	\$ 391
Interest cost	16,991	18,111	18,399	964	1,141	1,175
Expected return on plan assets	(20,639)	(20,433)	(20,054)	—	—	—
Amortization of prior service costs	43	127	231	(468)	(468)	(468)
Amortization of net actuarial loss	19,813	15,748	14,624	448	696	705
Settlement expense	—	—	193	—	—	—
Net periodic benefit cost	23,393	20,643	20,476	1,226	1,710	1,803
Amount allocated to construction	(2,764)	(6,597)	(5,746)	(98)	(587)	(600)
Amount deferred to regulatory balancing account	(10,314)	(6,542)	(6,252)	—	—	—
Net amount charged to expense	\$ 10,315	\$ 7,504	\$ 8,478	\$ 1,128	\$ 1,123	\$ 1,203

Net periodic benefit costs are reduced by amounts capitalized to NGD plant based on approximately 25% to 35% payroll overhead charge. In addition, a certain amount of net periodic benefit costs were recorded to the regulatory balancing account, representing net periodic pension expense for the qualified plan above the amount set in rates, as approved by the OPUC, from 2011 through October 31, 2018. On October 26, 2018 the OPUC ordered that the balancing account be frozen as of October 31, 2018, with recovery subject to future proceedings. Effective November 1, 2018 the OPUC authorized an additional \$8.1 million to be included in rates for defined benefit pension plan expenses.

These are unfunded, non-qualified plans with no plan assets; however, a significant portion of the obligations is indirectly funded with company and trust-owned life insurance and other assets.

Other postretirement benefit plans are unfunded plans but are subject to regulatory deferral. The actuarial gains and losses, prior service costs, and transition assets or obligations for these plans are recognized as a regulatory asset.

Net periodic benefit costs consist of service costs, interest costs, the expected returns on plan assets, and the amortization of gains and losses and prior service costs. The gains and losses are the sum of the actuarial and asset gains and losses throughout the year and are amortized over the average remaining service period of active participants. The asset gains and losses are based in part on a market-related valuation of assets. The market-related valuation reflects differences between expected returns and actual investment returns with the differences recognized over a two-year period from the year in which they occur, thereby reducing year-to-year net periodic benefit cost volatility.

The following table provides the assumptions used in measuring periodic benefit costs and benefit obligations for the years ended December 31:

	Pension Benefits			Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Assumptions for net periodic benefit cost:						
Weighted-average discount rate	3.51%	3.99%	4.17%	3.44%	3.85%	4.00%
Rate of increase in compensation	3.25-4.5%	3.25-4.5%	3.25-4.5%	n/a	n/a	n/a
Expected long-term rate of return	7.50%	7.50%	7.50%	n/a	n/a	n/a
Assumptions for year-end funded status:						
Weighted-average discount rate	4.20%	3.52%	4.00%	4.13%	3.44%	3.85%
Rate of increase in compensation	3.25-3.5%	3.25-4.5%	3.25-4.5%	n/a	n/a	n/a
Expected long-term rate of return	7.50%	7.50%	7.50%	n/a	n/a	n/a

The assumed annual increase in health care cost trend rates used in measuring other postretirement benefits as of December 31, 2018 was 6.75%. These trend rates apply to both medical and prescription drugs. Medical costs and prescription drugs are assumed to decrease gradually each year to a rate of 4.75% by 2025.

Assumed health care cost trend rates can have a significant effect on the amounts reported for the health care plans; however, other postretirement benefit plans have a cap on the amount of costs reimbursable by NW Natural.

A one percentage point change in assumed health care cost trend rates would have the following effects:

<i>In thousands</i>	1% Increase	1% Decrease
Effect on net periodic postretirement health care benefit cost	\$ 43	\$ (39)
Effect on the accumulated postretirement benefit obligation	622	(560)

Mortality assumptions are reviewed annually and are updated for material changes as necessary. In 2018, mortality rate assumptions were updated from RP-2006 mortality tables for employees and healthy annuitants with a fully generational projection using scale MP-2017 to RP-2014 mortality tables using scale MP-2018, which partially offset increases of the projected benefit obligation.

The following table provides information regarding employer contributions and benefit payments for NW Natural's qualified pension plan, non-qualified pension plans, and other postretirement benefit plans for the years ended December 31, and estimated future contributions and payments:

<i>In thousands</i>	Pension Benefits	Other Benefits
Employer Contributions:		
2017	\$ 21,483	\$ 1,737
2018	17,715	1,674
2019 (estimated)	13,318	1,787
Benefit Payments:		
2016	20,959	1,732
2017	31,580	1,737
2018	21,918	1,674
Estimated Future Benefit Payments:		
2019	22,699	1,787
2020	23,622	1,846
2021	24,516	1,930
2022	25,316	1,941
2023	26,074	1,993
2024-2028	145,917	9,628

Employer Contributions to Company-Sponsored Defined Benefit Pension Plans

NW Natural makes contributions to its qualified defined benefit pension plans based on actuarial assumptions and estimates, tax regulations, and funding requirements under federal law. The Pension Protection Act of 2006 (the Act) established funding requirements for defined benefit plans. The Act establishes a 100% funding target over seven years for plan years beginning after December 31, 2008. In 2012 the Moving Ahead for Progress in the 21st Century Act (MAP-21) legislation changed several provisions affecting pension plans, including temporary funding relief and Pension Benefit Guaranty Corporation (PBGC) premium increases, which reduces the level of minimum required contributions in the near-term but generally increases contributions in the long-run and increases the operational costs of running a pension plan. In 2014, the Highway and Transportation Funding Act (HATFA) was signed and extended funding relief for an additional five years.

The qualified defined benefit pension plan was underfunded by \$162.4 million at December 31, 2018. Including the impacts of MAP-21 and HATFA, NW Natural made cash contributions totaling \$15.5 million to its qualified defined benefit pension plan for 2018. During 2019, NW Natural expects to make contributions of approximately \$11.0 million to this plan.

Multiemployer Pension Plan

In addition to the NW Natural-sponsored defined benefit plans presented above, prior to 2014 NW Natural contributed to a multiemployer pension plan for its NGD union employees known as the Western States Office and Professional Employees International Union Pension Fund (Western States Plan). The plan's employer identification number is 94-6076144. Effective December 22, 2013, NW Natural withdrew from the plan, which was a noncash transaction. Vested participants will receive all benefits accrued through the date of withdrawal. As the plan was underfunded at the time of withdrawal, NW Natural was assessed a withdrawal liability of \$8.3 million, plus interest, which requires NW Natural to pay \$0.6 million each year to the plan for 20 years beginning in July 2014. The cost of the withdrawal liability was deferred to a regulatory account on the balance sheet.

Payments were \$0.6 million for 2018, and as of December 31, 2018 the liability balance was \$6.8 million. For 2017 and 2016, contributions to the plan were \$0.6 million and \$0.6 million, respectively, which was approximately 4% to 6% of the total contributions to the plan by all employer participants in those years.

Defined Contribution Plan

NW Natural's Retirement K Savings Plan is a qualified defined contribution plan under Internal Revenue Code Sections 401(a) and 401(k). NW Natural contributions totaled \$6.5 million, \$5.4 million, and \$4.6 million for 2018, 2017, and 2016, respectively. The Retirement K Savings Plan includes an Employee Stock Ownership Plan.

Deferred Compensation Plans

NW Natural's supplemental deferred compensation plans for eligible officers and senior managers are non-qualified plans. These plans are designed to enhance the retirement savings of employees and to assist them in strengthening their financial security by providing an incentive to save and invest regularly.

Fair Value

Below is a description of the valuation methodologies used for assets measured at fair value. In cases where NW Natural's pension plan is invested through a collective trust fund or mutual fund, the fund's market value is utilized. Market values for investments directly owned are also utilized.

U.S. EQUITY. These are non-published net asset value (NAV) assets. The non-published NAV assets consist of commingled trusts where NAV is not published but the investment can be readily disposed of at NAV or market value. The underlying investments in this asset class includes investments primarily in U.S. common stocks.

INTERNATIONAL/GLOBAL EQUITY. These are Level 1 and non-published NAV assets. The Level 1 asset is a mutual fund, and the non-published NAV assets consist of commingled trusts where the NAV/unit price is not published but the investment can be readily disposed of at the NAV/unit price. The mutual funds has a readily determinable fair value, including a published NAV, and the commingled trusts are valued at unit price. This asset class includes investments primarily in foreign equity common stocks.

LIABILITY HEDGING. These are non-published NAV assets. The non-published NAV assets consist of commingled trusts where NAV is not published but the investment can be readily disposed of at NAV or market value. The underlying investments in this asset class include long duration fixed income investments primarily in U.S. treasuries, U.S. government agencies, municipal securities, mortgage-backed securities, asset-backed securities, as well as U.S. and international investment-grade corporate bonds.

OPPORTUNISTIC. These are non-published NAV assets consisting of commingled trusts where the investments can be readily disposed of at unit price, and a hedge fund of funds where the valuation is not published. This hedge fund of funds is winding down. Based on recent dispositions, NW Natural believes the remaining investment is fairly valued. The hedge fund of funds is valued at the weighted average value of investments in various hedge funds, which in turn are valued at the closing price of the underlying securities. This asset class includes investments in emerging market debt, leveraged loans, REITs, high yield bonds, a commodities fund, and a hedge fund of funds.

ABSOLUTE RETURN STRATEGY. This is a non-published NAV asset consisting of a hedge fund of funds where the valuation is not published. This hedge fund of funds is winding down. Based on recent dispositions, NW Natural believes the remaining investment is fairly valued. The hedge fund of funds is valued at the weighted average value of investments in various hedge funds, which in turn are valued at the closing price of the underlying securities. This asset class primarily includes investments in common stocks and fixed income securities.

CASH AND CASH EQUIVALENTS. These are Level 1 and non-published NAV assets. The Level 1 assets consist of cash in U.S. dollars, which can be readily disposed of at face value. The non-published NAV assets represent mutual funds without published NAV's but the investment can be readily disposed of at the NAV. The mutual funds are valued at the NAV of the shares held by the plan at the valuation date.

The preceding valuation methods may produce a fair value calculation that is not indicative of net realizable value or reflective of future fair values. Although we believe these valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain investments could result in a different fair value measurement at the reporting date.

Investment securities are exposed to various financial risks including interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of NW

Natural's investment securities will occur in the near term and such changes could materially affect NW Natural's investment account balances and the amounts reported as plan assets available for benefit payments.

The following tables present the fair value of NW Natural's plan assets, including outstanding receivables and liabilities, of NW Natural's retirement trust fund:

Investments	December 31, 2018				
	Level 1	Level 2	Level 3	Non-Published NAV ⁽¹⁾	Total
US equity	\$ —	\$ —	\$ —	\$ 85,233	\$ 85,233
International / Global equity	24,994	—	—	70,017	95,011
Liability hedging	—	—	—	45,659	45,659
Opportunistic	—	—	—	23,186	23,186
Cash and cash equivalents	—	—	—	8,707	8,707
Total investments	\$ 24,994	\$ —	\$ —	\$ 232,802	\$ 257,796

Investments	December 31, 2017				
	Level 1	Level 2	Level 3	Non-Published NAV ⁽¹⁾	Total
US equity	\$ —	\$ —	\$ —	\$ 98,375	\$ 98,375
International / Global equity	21,211	—	—	84,818	106,029
Liability hedging	—	—	—	53,981	53,981
Opportunistic	—	—	—	23,895	23,895
Cash and cash equivalents	82	—	—	5,533	5,615
Total investments	\$ 21,293	\$ —	\$ —	\$ 266,602	\$ 287,895

	December 31,	
	2018	2017
Receivables:		
Accrued interest and dividend income	\$ 1	\$ 30
Due from broker for securities sold	—	—
Total receivables	\$ 1	\$ 30
Liabilities:		
Due to broker for securities purchased	\$ —	\$ —
Total investment in retirement trust	\$ 257,797	\$ 287,925

⁽¹⁾ The fair value for these investments is determined using Net Asset Value per share (NAV) as of December 31, as a practical expedient, and therefore they are not classified within the fair value hierarchy. These investments primarily consist of institutional investment products, for which the NAV is generally not publicly available.

10. INCOME TAX

The following table provides a reconciliation between income taxes calculated at the statutory federal tax rate and the provision for income taxes reflected in the NW Holdings and NW Natural statements of comprehensive income or loss for December 31:

Dollars in thousands	NW Holdings			NW Natural		
	2018	2017	2016	2018	2017	2016
Income taxes at federal statutory rate	\$ 19,222	\$ 39,578	\$ 36,901	\$ 19,434	\$ 39,624	\$ 37,137
Increase (decrease):						
State income tax, net of federal	4,927	5,066	4,844	4,982	5,072	4,858
Differences required to be flowed-through by regulatory commissions	1,302	2,357	2,357	1,302	2,357	2,357
Effect of the TCJA	—	(3,376)	—	—	(2,956)	—
Deferred tax rate differential post-TCJA	(76)	—	—	(75)	—	—
Other, net	(1,184)	(2,617)	(1,091)	(1,184)	(2,619)	(1,077)
Total provision for income taxes	\$ 24,191	\$ 41,008	\$ 43,011	\$ 24,459	\$ 41,478	\$ 43,275
Effective tax rate	26.4%	36.3%	40.8%	26.4%	36.6%	40.8%

The NW Holdings and NW Natural effective income tax rates for 2018 compared to 2017 changed primarily as a result of the lower federal corporate income tax rate provided for by the TCJA. The effective tax rates for 2017 compared to 2016 changed primarily as a result of the lower

federal corporate income tax rate provided for by the TCJA and NW Natural's increased benefits from the equity portion of AFUDC and excess tax benefits related to stock based compensation.

The provision for current and deferred income taxes consists of the following at December 31:

<i>In thousands</i>	NW Holdings			NW Natural		
	2018	2017	2016	2018	2017	2016
Current						
Federal	\$ 8,953	\$ 19,345	\$ 10,042	\$ 9,127	\$ 19,304	\$ 10,158
State	3,785	5,963	3,116	3,846	5,956	3,131
	<u>12,738</u>	<u>25,308</u>	<u>13,158</u>	<u>12,973</u>	<u>25,260</u>	<u>13,289</u>
Deferred						
Federal	9,001	13,869	25,473	9,025	14,371	25,581
State	2,452	1,831	4,380	2,461	1,847	4,405
	<u>11,453</u>	<u>15,700</u>	<u>29,853</u>	<u>11,486</u>	<u>16,218</u>	<u>29,986</u>
Income tax provision	<u>\$ 24,191</u>	<u>\$ 41,008</u>	<u>\$ 43,011</u>	<u>\$ 24,459</u>	<u>\$ 41,478</u>	<u>\$ 43,275</u>

The following table summarizes the tax effect of significant items comprising NW Holdings and NW Natural's deferred income tax balances recorded at December 31:

<i>In thousands</i>	NW Holdings		NW Natural	
	2018	2017 ⁽¹⁾	2018	2017
Deferred tax liabilities:				
Plant and property	\$ 288,385	\$ 278,735	\$ 303,186	\$ 296,113
Pension and postretirement obligations	27,135	23,352	27,135	23,352
Income tax regulatory asset	21,403	22,209	21,402	22,209
Other	1,061	2,766	537	2,250
Total deferred income tax liabilities	<u>\$ 337,984</u>	<u>\$ 327,062</u>	<u>\$ 352,260</u>	<u>\$ 343,924</u>
Deferred income tax assets:				
Income tax regulatory liability	\$ 57,469	\$ 56,470	\$ 57,469	\$ 56,470
Alternative minimum tax credit carryforward	52	66	52	66
Total deferred income tax assets	<u>\$ 57,521</u>	<u>\$ 56,536</u>	<u>\$ 57,521</u>	<u>\$ 56,536</u>
Total net deferred income tax liabilities	<u>\$ 280,463</u>	<u>\$ 270,526</u>	<u>\$ 294,739</u>	<u>\$ 287,388</u>

⁽¹⁾ Amounts have been reclassified among categories to conform to current period presentation.

At December 31, 2018 and 2017, regulatory income tax assets of \$19.1 million and \$21.3 million, respectively, were recorded by NW Natural, a portion of which is recorded in current assets. These regulatory income tax assets primarily represent future rate recovery of deferred tax liabilities, resulting from differences in NGD plant financial statement and tax bases and NGD plant removal costs, which were previously flowed through for rate making purposes and to take into account the additional future taxes, which will be generated by that recovery. These deferred tax liabilities, and the associated regulatory income tax assets, are currently being recovered through customer rates. At December 31, 2018 and 2017, regulatory income tax assets of \$2.3 million and \$0.9 million, respectively, were recorded by NW Natural, representing future recovery of deferred tax liabilities resulting from the equity portion of AFUDC.

At December 31, 2018 and 2017, deferred tax assets of \$57.5 million and \$56.5 million, respectively, were recorded by NW Natural representing the future income tax benefit associated with the excess deferred income tax regulatory liability recorded as a result of the lower federal corporate

income tax rate provided for by the TCJA. At December 31, 2018 and 2017, regulatory liability balances representing the net tax benefit of the change in deferred taxes as a result of the TCJA of \$217.1 million and \$213.3 million, respectively, were recorded by NW Natural.

NW Natural's natural gas utility rates include an allowance to provide for the recovery of the anticipated provision for income taxes incurred as a result of providing regulated services. As a result of the 21 percent federal corporate income tax rate enacted in 2017, NW Natural recorded an additional regulatory liability in 2018 reflecting the estimated net reduction in the provision for income taxes. This revenue deferral is based on the estimated net benefit to customers and includes a gross-up for income taxes. As of December 31, 2018, a regulatory liability of \$8.2 million, including accrued interest, was recorded to reflect this estimated revenue deferral.

NW Holdings and NW Natural assess the available positive and negative evidence to estimate if sufficient taxable income will be generated to utilize their respective existing

deferred tax assets. Based upon this assessment, NW Holdings and NW Natural determined that it is more likely than not that all of their respective deferred tax assets recorded as of December 31, 2018 will be realized.

Uncertain tax positions are accounted for in accordance with accounting standards that require an assessment of the anticipated settlement outcome of material uncertain tax positions taken in a prior year, or planned to be taken in the current year. Until such positions are sustained, the uncertain tax benefits resulting from such positions would not be recognized. No reserves for uncertain tax positions were recorded as of December 31, 2018, 2017, or 2016.

NW Holdings files a consolidated U.S. federal income tax return that includes NW Natural. Income tax expense is allocated on a separate company basis.

The federal income tax returns for tax years 2014 and earlier are closed by statute. The IRS Compliance Assurance Process (CAP) examination of the 2015, and 2016 tax years have been completed. There were no material changes to these returns as filed. The 2017 and 2018 tax years are currently under IRS CAP examination. Our 2019 CAP application has been accepted by the IRS. Under the CAP program, NW Holdings and NW Natural work with the IRS to identify and resolve material tax matters before the tax return is filed each year.

As of December 31, 2018, income tax years 2015 through 2018 remain open for state examination. The State of Oregon is currently examining the Oregon corporate income tax returns for tax years 2015, 2016, and 2017. No material changes are anticipated as a result of this examination.

U.S. Federal TCJA Matters

On December 22, 2017, the TCJA was enacted and lowered the U.S. federal corporate income tax rate to 21% from the existing maximum rate of 35%, effective for the tax year beginning January 1, 2018. The TCJA included specific provisions related to regulated public utilities that provided for the continued deductibility of interest expense and the elimination of bonus tax depreciation for property both acquired and placed in service on or after January 1, 2018.

Under pre-TCJA law, business interest was generally deductible in the determination of taxable income. The TCJA imposed a new limitation on the deductibility of net business interest expense in excess of approximately 30 percent of adjusted taxable income. Taxpayers operating in the trade or business of a regulated utility are excluded from these new interest expense limitations. Proposed U.S. Treasury Regulations were published in November of 2018 which provide a de minimis rule whereby if 90 percent or more of a taxpayer's adjusted asset basis is allocable to regulated utility activities, then all of the business interest expense of that taxpayer is deemed to be excepted business interest of the regulated utility activity and is thereby not limited under the TCJA. As a result of the de minimis rule, NW Holdings and NW Natural anticipate that business interest expense will not be limited under the TCJA.

The TCJA generally provides for immediate full expensing for qualified property both acquired and placed in service after September 27, 2017 and before January 1, 2023. This

would generally provide for accelerated cost recovery for capital investments. However, the definition of qualified property excludes property used in the trade or business of a regulated utility. Proposed U.S. Treasury Regulations were published in August of 2018 which indicated that bonus tax depreciation would not be available for regulated utility activity assets acquired and placed in service by NW Holdings or NW Natural on or after January 1, 2018, but bonus tax depreciation would be available for regulated utility activity assets acquired and placed in service by NW Holdings or NW Natural before January 1, 2018.

The SEC staff previously issued Staff Accounting Bulletin 118, which provided guidance on accounting for the tax effects of the TCJA. SAB 118 provided a measurement period that should not extend beyond one year from the TCJA enactment date for companies to complete the accounting for the TCJA under ASC 740. To the extent that a company's accounting for certain income tax effects of the TCJA was incomplete but a reasonable estimate could be made, a company would record a provisional estimate in the financial statements. NW Natural previously disclosed that due to uncertainties with respect to the availability of bonus tax depreciation for regulated utility activity assets under the TCJA that the effects of bonus tax depreciation for assets placed in service after September 27, 2017 but before January 1, 2018 had not been recorded. The determination to exclude all assets placed in service after September 27, 2017 but before January 1, 2018 from bonus tax depreciation was provisional as provided for under SAB 118.

As a result of the Proposed Regulations on bonus tax depreciation published in August of 2018, NW Natural revised the provisional estimate of deferred taxes and income taxes payable to reflect the effects of bonus tax depreciation for assets placed in service after September 27, 2017 but before January 1, 2018. In the third quarter, NW Natural recognized increases to prepaid income tax of \$7.4 million, deferred income tax liability of \$4.1 million, and regulatory liability of \$3.3 million. In the fourth quarter, NW Natural recognized additional increases to prepaid income tax of \$0.5 million, deferred income tax liability of \$0.3 million, and regulatory liability of \$0.2 million. The accounting for income tax effects of the TCJA is now complete.

11. PROPERTY, PLANT, AND EQUIPMENT

The following table sets forth the major classifications of property, plant, and equipment and accumulated depreciation at December 31:

<i>In thousands</i>	2018	2017
NW Natural:		
NGD plant in service	\$3,134,122	\$2,975,217
NGD work in progress	204,978	159,924
Less: Accumulated depreciation	974,252	942,879
NGD plant, net	2,364,848	2,192,262
Other plant in service	66,009	64,997
Other construction work in progress	5,330	4,122
Less: Accumulated depreciation	18,603	17,406
Other plant, net ⁽¹⁾	52,736	51,713
Total property, plant, and equipment	\$2,417,584	\$2,243,975
Other (NW Holdings):		
Other plant in service	\$ 4,051	\$ 375
Less: Accumulated depreciation	263	192
Other plant, net ⁽¹⁾	3,788	183
NW Holdings:		
Total property, plant, and equipment	\$2,421,372	\$2,244,158
NW Natural and NW Holdings:		
Capital expenditures in accrued liabilities	\$ 23,676	\$ 34,761

⁽¹⁾ NW Natural's previously reported other balances were restated due to certain assets and liabilities now being classified as discontinued operations assets and liabilities in its balance sheets. See Note 18 for further discussion.

12. GAS RESERVES

NW Natural has invested \$188 million through the gas reserves program in the Jonah Field located in Wyoming as of December 31, 2018. Gas reserves are stated at cost, net of regulatory amortization, with the associated deferred tax benefits recorded as liabilities in the consolidated balance sheets. The investment in gas reserves provides long-term price protection for NGD customers through the original agreement with Encana Oil & Gas (USA) Inc. under which NW Natural invested \$178 million and the amended agreement with Jonah Energy LLC under which an additional \$10 million was invested.

NW Natural entered into the original agreements with Encana in 2011 under which NW Natural holds working interests in certain sections of the Jonah Field. Gas produced in these sections is sold at prevailing market prices, and revenues from such sales, net of associated operating and production costs and amortization, are credited to the NGD cost of gas. The cost of gas, including a carrying cost for the rate base investment, is included in the annual Oregon PGA filing, which allows NW Natural to recover these costs through customer rates. The investment under the original agreement, less accumulated amortization and deferred taxes, earns a rate of return.

Accumulated depreciation does not include the accumulated provision for asset removal costs of \$380.5 million and \$360.9 million at December 31, 2018 and 2017, respectively. These accrued asset removal costs are reflected on the balance sheet as regulatory liabilities. See Note 2. During 2018 and 2017, no equipment was acquired under capital leases.

NW Holdings

Other plant balances include long-lived assets associated with water operations and non-regulated activities not held by NW Natural or its subsidiaries.

NW Natural

Other plant balances include long-lived assets not related to NGD.

The weighted average depreciation rate for NGD assets was 2.8% during 2018, 2017, and 2016. The weighted average depreciation rate for assets not related to NGD was 2.2% in 2018, 1.9% in 2017, and 2.0% in 2016.

In March 2014, NW Natural amended the original gas reserves agreement in order to facilitate Encana's proposed sale of its interest in the Jonah field to Jonah Energy. Under the amendment, NW Natural ended the drilling program with Encana, but increased its working interests in its assigned sections of the Jonah field. NW Natural also retained the right to invest in new wells with Jonah Energy. Under the amended agreement there is still the option to invest in additional wells on a well-by-well basis with drilling costs and resulting gas volumes shared at NW Natural's amended proportionate working interest for each well in which it invests. NW Natural elected to participate in some of the additional wells drilled in 2014, but did not participate in additional wells since 2014. However, there may be the opportunity to participate in more wells in the future.

Gas produced from the additional wells is included in the Oregon PGA at a fixed rate of \$0.4725 per therm, which approximates the 10-year hedge rate plus financing costs at the inception of the investment.

Gas reserves acted to hedge the cost of gas for approximately 6%, 6% and 8% of NGD gas supplies for the years ended December 31, 2018, 2017, and 2016 respectively.

The following table outlines NW Natural's net gas reserves investment at December 31:

<i>In thousands</i>	2018	2017
Gas reserves, current	\$ 16,647	\$ 15,704
Gas reserves, non-current	170,660	171,832
Less: Accumulated amortization	104,463	87,779
Total gas reserves ⁽¹⁾	82,844	99,757
Less: Deferred taxes on gas reserves	20,071	22,712
Net investment in gas reserves	\$ 62,773	\$ 77,045

⁽¹⁾ The net investment in additional wells included in total gas reserves was \$4.8 million and \$5.8 million at December 31, 2018 and 2017, respectively.

13. INVESTMENTS

Investments include financial investments in life insurance policies, and equity method investments in certain partnerships and limited liability companies. The following table summarizes other investments at December 31:

<i>In thousands</i>	NW Holdings		NW Natural	
	2018	2017	2018	2017
Investments in life insurance policies	\$ 49,922	\$ 50,792	\$ 49,922	\$ 50,792
Investments in gas pipeline	13,571	13,669	—	—
Other	65	1,902	—	1,862
Total other investments	\$ 63,558	\$ 66,363	\$ 49,922	\$ 52,654

Investment in Life Insurance Policies

NW Natural has invested in key person life insurance contracts to provide an indirect funding vehicle for certain long-term employee and director benefit plan liabilities. The amount in the above table is reported at cash surrender value, net of policy loans.

Investments in Gas Pipeline

TWP, a wholly-owned subsidiary of TWH, is pursuing the development of a new gas transmission pipeline that would provide an interconnection with NW Natural's NGD system. NWN Energy, a wholly-owned subsidiary of NW Holdings, owns 50% of TWH, and 50% is owned by TransCanada American Investments Ltd., an indirect wholly-owned subsidiary of TransCanada Corporation.

Variable Interest Entity (VIE) Analysis

TWH is a VIE, with NW Holdings' investment in TWP reported under equity method accounting. It has been determined that NW Holdings is not the primary beneficiary of TWH's activities as it only has a 50% share of the entity, and there are no stipulations that allow NW Holdings a disproportionate influence over it. Investments in TWH and TWP are included in other investments on NW Holdings' balance sheet. If this investment is not developed, then the maximum loss exposure related to TWH is limited to NW Holdings' equity investment balance, less its share of any cash or other assets available to NW Holdings as a 50% owner. The investment balance in TWH was \$13.4 million at December 31, 2018 and 2017.

NW Natural's investment is included in NW Holdings' and NW Natural's consolidated balance sheets under gas reserves with the maximum loss exposure limited to the investment balance.

Impairment Analysis

Investments in nonconsolidated entities accounted for under the equity method are reviewed for impairment at each reporting period and following updates to our corporate planning assumptions. If it is determined a loss in value is other than temporary, a charge is recognized for the difference between the investment's carrying value and its estimated fair value. Fair value is based on quoted market prices when available or on the present value of expected future cash flows. Differing assumptions could affect the timing and amount of a charge recorded in any period.

In 2011, TWP withdrew its original application with the FERC for a proposed natural gas pipeline in Oregon and informed FERC that it intended to re-file an application to reflect changes in the project scope aligning the project with the region's current and future gas infrastructure needs. TWP continues working with customers in the Pacific Northwest to further understand their gas transportation needs and determine the commercial support for a revised pipeline proposal. A new FERC certificate application is expected to be filed to reflect a revised scope based on these regional needs.

NW Holdings' equity investment was not impaired at December 31, 2018 as the fair value of expected cash flows from planned development exceeded NW Holdings' remaining equity investment of \$13.4 million at December 31, 2018. However, if NW Holdings learns that the project is not viable or will not go forward, it could be required to recognize a maximum charge of up to approximately \$13.4 million based on the current amount of the equity investment, net of cash and working capital at TWP. NW Holdings will continue to monitor and update the impairment analysis as required.

14. BUSINESS COMBINATIONS

Falls Water

On September 13, 2018, NWN Water, then a wholly-owned subsidiary of NW Natural and now a wholly-owned subsidiary of NW Holdings, completed the acquisition of Falls Water Co., Inc. (Falls Water), a privately-owned water utility in the Pacific Northwest for preliminary non-cash consideration of \$8.5 million, subject to closing adjustments, in the form of 125,000 shares of NW Natural common stock. Falls Water became a wholly-owned subsidiary of NWN Water and marked its first acquisition in the water services sector. This acquisition aligns with NW Holdings' water sector strategy as the acquisition provides NWN Water entry into Idaho, expands service area, and opens further opportunity for growth. Falls Water is based in Idaho Falls, Idaho and serves approximately 5,300 connections.

Through the purchase of all of the outstanding shares of Falls Water, NWN Water acquired the net assets and 100% control of Falls Water. We determined that the Falls Water acquisition met the criteria of a business combination, and as such performed a preliminary allocation of the consideration to the acquired assets and assumed liabilities based on their fair value as of the acquisition date, the majority of which was allocated to goodwill. The allocation is considered preliminary as of December 31, 2018, and is primarily associated with certain tax positions and goodwill. Subsequent adjustments are not expected to be significant,

15. DERIVATIVE INSTRUMENTS

NW Natural enters into financial derivative contracts to hedge a portion of the NGD segment's natural gas sales requirements. These contracts include swaps, options, and combinations of option contracts. These derivative financial instruments are primarily used to manage commodity price variability. A small portion of NW Natural's derivative hedging strategy involves foreign currency exchange contracts.

NW Natural enters into these financial derivatives, up to prescribed limits, primarily to hedge price variability related to physical gas supply contracts as well as to hedge spot purchases of natural gas. The foreign currency forward contracts are used to hedge the fluctuation in foreign currency exchange rates for pipeline demand charges paid in Canadian dollars.

In the normal course of business, NW Natural also enters into indexed-price physical forward natural gas commodity purchase contracts and options to meet the requirements of NGD customers. These contracts qualify for regulatory deferral accounting treatment.

NW Natural also enters into exchange contracts related to the third-party asset management of its gas portfolio, some of which are derivatives that do not qualify for hedge accounting or regulatory deferral, but are subject to NW Natural's regulatory sharing agreement. These derivatives are recognized in operating revenues, net of amounts shared with NGD customers.

and any such adjustments are expected to be completed within a one-year measurement period. The acquisition costs were insignificant and were expensed as incurred. The results of Falls Water are not material to the consolidated financial results of NW Holdings.

Preliminary goodwill of \$6.4 million was recognized from this acquisition and is attributable to Falls Water's regulated service territory and experienced workforce as well as the strategic benefits expected from this high-growth service territory. NW Holdings has included this goodwill in other for segment reporting purposes, and it is not deductible for income tax purposes. No intangible assets aside from goodwill were acquired. See Note 2 for goodwill impairment information.

Other Acquisitions

During 2018, in addition to the Falls Water acquisition, NWN Water completed three acquisitions qualifying as business combinations. The aggregate fair value of the preliminary consideration transferred for these acquisitions was approximately \$2.8 million. These business combinations, both individually and in aggregate, were not significant to NW Holdings' results of operations.

As a result of all acquisitions completed, total goodwill was \$9.0 million as of December 31, 2018.

Notional Amounts

The following table presents the absolute notional amounts related to open positions on NW Natural derivative instruments:

<i>In thousands</i>	At December 31,	
	2018	2017
Natural gas (in therms):		
Financial	408,850	429,100
Physical	472,275	520,268
Foreign exchange	\$ 6,936	\$ 7,669

Purchased Gas Adjustment (PGA)

Derivatives entered into by NW Natural for the procurement or hedging of natural gas for future gas years generally receive regulatory deferral accounting treatment. In general, commodity hedging for the current gas year is completed prior to the start of the gas year, and hedge prices are reflected in the weighted-average cost of gas in the PGA filing. Hedge contracts entered into after the start of the PGA period are subject to the PGA incentive sharing mechanism in Oregon. NW Natural entered the 2018-19 and 2017-18 gas year with forecasted sales volumes hedged at 48% and 49% in financial swap and option contracts, and 24% and 26% in physical gas supplies, respectively. Hedge contracts entered into prior to the PGA filing, in September 2018, were included in the PGA for the 2018-19 gas year. Hedge contracts entered into after the PGA filing, and related to subsequent gas years, may be included in future PGA filings and qualify for regulatory deferral.

Unrealized and Realized Gain/Loss

The following table reflects the income statement presentation for the unrealized gains and losses from NW Natural's derivative instruments, which also represents all derivative instruments at NW Holdings:

<i>In thousands</i>	December 31, 2018		December 31, 2017	
	Natural gas commodity	Foreign exchange	Natural gas commodity	Foreign exchange
Benefit (expense) to cost of gas	\$ (1,239)	\$ (284)	\$ (26,000)	\$ 107
Operating revenues	1,660	—	(1,021)	—
Amounts deferred to regulatory accounts on balance sheet	(211)	284	26,665	(107)
Total gain (loss) in pre-tax earnings	\$ 210	\$ —	\$ (356)	\$ —

UNREALIZED GAIN/LOSS. Outstanding derivative instruments related to regulated NGD operations are deferred in accordance with regulatory accounting standards. The cost of foreign currency forward and natural gas derivative contracts are recognized immediately in the cost of gas; however, costs above or below the amount embedded in the current year PGA are subject to a regulatory deferral tariff and therefore, are recorded as a regulatory asset or liability.

REALIZED GAIN/LOSS. Net gains of \$7.4 million and net losses of \$7.8 million were realized for the years ended December 31, 2018 and 2017, respectively, from the settlement of natural gas financial derivative contracts. Realized gains and losses are recorded in cost of gas, deferred through regulatory accounts, and amortized through customer rates in the following year.

Credit Risk Management of Financial Derivatives Instruments

No collateral was posted with or by NW Natural counterparties as of December 31, 2018 or 2017. NW Natural attempts to minimize the potential exposure to collateral calls by counterparties to manage liquidity risk. Counterparties generally allow a certain credit limit threshold before requiring NW Natural to post collateral against loss positions. Given NW Natural's counterparty credit limits and portfolio diversification, it was not subject to collateral calls in 2018 or 2017. The collateral call exposure is set forth under credit support agreements, which generally contain credit limits. NW Natural could also be subject to collateral call exposure where it has agreed to provide adequate assurance, which is not specific as to the amount of credit limit allowed, but could potentially require additional collateral in the event of a material adverse change.

Based on current commodity financial swap and option contracts outstanding, which reflect unrealized losses of \$7.8 million at December 31, 2018, we have estimated the level of collateral demands, with and without potential adequate assurance calls, using current gas prices and various credit downgrade rating scenarios for NW Natural as follows:

<i>In thousands</i>	(Current Ratings) A+/A3	Credit Rating Downgrade Scenarios			
		BBB+/Baa1	BBB/Baa2	BBB-/Baa3	Speculative
With Adequate Assurance Calls	\$ —	\$ —	\$ —	\$ (3,940)	\$ (6,059)
Without Adequate Assurance Calls	—	—	—	(3,940)	(4,452)

NW Natural's financial derivative instruments are subject to master netting arrangements; however, they are presented on a gross basis in NW Natural's consolidated balance sheets. NW Natural and its counterparties have the ability to set-off obligations to each other under specified circumstances. Such circumstances may include a defaulting party, a credit change due to a merger affecting either party, or any other termination event.

If netted by counterparty, NW Natural's derivative position would result in an asset of \$3.6 million and a liability of \$9.3 million as of December 31, 2018, and an asset of \$2.9 million and a liability of \$23.3 million as of December 31, 2017.

NW Natural is exposed to derivative credit and liquidity risk primarily through securing fixed price natural gas commodity swaps to hedge the risk of price increases for natural gas purchases made on behalf of customers. NW Natural utilizes master netting arrangements through International Swaps and Derivatives Association contracts to minimize this risk along with collateral support agreements with counterparties based on their credit ratings. In certain cases, NW Natural requires guarantees or letters of credit from counterparties to meet its minimum credit requirement standards.

NW Natural's financial derivatives policy requires counterparties to have a certain investment-grade credit rating at the time the derivative instrument is entered into, and the policy specifies limits on the contract amount and duration based on each counterparty's credit rating. NW Natural does not speculate with derivatives; instead, derivatives are used to hedge exposure above risk tolerance limits. Any increase in market risk created by the use of derivatives should be offset by the exposures they modify.

We actively monitor NW Natural's derivative credit exposure and place counterparties on hold for trading purposes or require other forms of credit assurance, such as letters of credit, cash collateral, or guarantees as circumstances warrant. The ongoing assessment of counterparty credit risk includes consideration of credit ratings, credit default swap spreads, bond market credit spreads, financial condition, government actions, and market news. A Monte-Carlo simulation model is used to estimate the change in credit and liquidity risk from the volatility of natural gas prices. The results of the model are used to establish earnings-at-risk trading limits. NW Natural's credit risk for all outstanding financial derivatives at December 31, 2018 extends to October 31, 2021.

We could become materially exposed to credit risk with one or more of our counterparties if natural gas prices experience a significant increase. If a counterparty were to become insolvent or fail to perform on its obligations, we could suffer a material loss; however, we would expect such a loss to be eligible for regulatory deferral and rate recovery, subject to a prudence review. All of our existing counterparties currently have investment-grade credit ratings.

16. COMMITMENTS AND CONTINGENCIES

Leases

Land, buildings, and equipment are leased under agreements that expire in various years, including a 99-year land lease that extends through 2108. Rental costs for continuing operations were \$5.9 million, \$7.3 million, and \$5.9 million for the years ended December 31, 2018, 2017, and 2016, respectively, a portion of which was capitalized.

The following table reflects NW Natural's future minimum lease payments due under non-cancelable operating leases for continuing operations at December 31, 2018. These commitments relate principally to the lease of the office headquarters and underground gas storage facilities.

<i>In thousands</i>	Minimum lease payments
2019	\$ 5,368
2020	4,812
2021	7,077
2022	7,223
2023	7,304
Thereafter	149,881
Total	<u>\$ 181,665</u>

In October 2017, NW Natural entered into a 20-year operating lease agreement for a new headquarters in Portland, Oregon in anticipation of the expiration of the current lease in 2020.

Payments under the new lease are expected to commence in 2020. Total estimated base rent payments over the life of the lease are approximately \$160 million and have been included in the table above. There is an option to extend the term of the lease for two additional seven-year periods.

Fair Value

In accordance with fair value accounting, non-performance risk is included in calculating fair value adjustments. This includes a credit risk adjustment based on the credit spreads of NW Natural's counterparties when it is in an unrealized gain position, or on NW Natural's own credit spread when it is in an unrealized loss position. The inputs in the valuation models include natural gas futures, volatility, credit default swap spreads, and interest rates. Additionally, the assessment of non-performance risk is generally derived from the credit default swap market and from bond market credit spreads. The impact of the credit risk adjustments for all outstanding derivatives was immaterial to the fair value calculation at December 31, 2018. As of December 31, 2018 and 2017, the net fair value was a liability of \$5.7 million and a liability of \$20.3 million, respectively, using significant other observable, or Level 2, inputs. No Level 3 inputs were used in the derivative valuations, and there were no transfers between Level 1 or Level 2 during the years ended December 31, 2018 and 2017.

Additionally, the lease was analyzed under the lease standard in effect at the time of signing in consideration of build-to-suit lease accounting implications, and NW Natural concluded that it was the accounting owner of the asset during construction. As a result, NW Natural recognized \$26.0 million and \$0.5 million in property, plant and equipment and an obligation in other non-current liabilities for the same amount in its consolidated balance sheet at December 31, 2018 and 2017, respectively.

Gas Purchase and Pipeline Capacity Purchase and Release Commitments

NW Natural has signed agreements providing for the reservation of firm pipeline capacity under which it is required to make fixed monthly payments for contracted capacity. The pricing component of the monthly payment is established, subject to change, by U.S. or Canadian regulatory bodies. In addition, NW Natural has entered into long-term sale agreements to release firm pipeline capacity. NW Natural also enters into short-term and long-term gas purchase agreements.

The aggregate amounts of these agreements were as follows at December 31, 2018:

<i>In thousands</i>	Gas Purchase Agreements	Pipeline Capacity Purchase Agreements	Pipeline Capacity Release Agreements
2019	\$ 144,500	\$ 78,449	\$ 4,272
2020	2,776	76,613	3,560
2021	2,313	66,656	—
2022	—	61,075	—
2023	—	60,619	—
Thereafter	—	580,022	—
Total	149,589	923,434	7,832
Less: Amount representing interest	1,314	201,224	183
Total at present value	\$ 148,275	\$ 722,210	\$ 7,649

17. ENVIRONMENTAL MATTERS

NW Natural owns, or previously owned, properties that may require environmental remediation or action. The range of loss for environmental liabilities is estimated based on current remediation technology, enacted laws and regulations, industry experience gained at similar sites, and an assessment of the probable level of involvement and financial condition of other potentially responsible parties (PRPs). When amounts are prudently expended related to site remediation of those sites described herein, NW Natural has a recovery mechanism in place to collect 96.68% of remediation costs from Oregon customers, and NW Natural is allowed to defer environmental remediation costs allocated to customers in Washington annually until they are reviewed for prudence at a subsequent proceeding.

These sites are subject to the remediation process prescribed by the Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (ODEQ). The process begins with a remedial investigation (RI) to determine the nature and extent of contamination and then a risk assessment (RA) to establish whether the contamination at the site poses unacceptable risks to humans and the environment. Next, a feasibility study (FS) or an engineering evaluation/cost analysis (EE/CA) evaluates various remedial alternatives. It is at this point in the process when NW Natural is able to estimate a range of remediation costs and record a reasonable potential remediation liability, or make an adjustment to the existing liability. From this study, the regulatory agency selects a remedy and issues a Record of Decision (ROD).

After a ROD is issued, NW Natural would seek to negotiate a consent decree or consent judgment for designing and implementing the remedy. NW Natural would have the ability to further refine estimates of remediation liabilities at that time.

Total payments for fixed charges under capacity purchase agreements were \$82.6 million for 2018, \$85.3 million for 2017, and \$85.0 million for 2016. Included in the amounts were reductions for capacity release sales of \$4.3 million for 2018, \$4.5 million for 2017, and \$4.5 million for 2016. In addition, per-unit charges are required to be paid based on the actual quantities shipped under the agreements. In certain take-or-pay purchase commitments, annual deficiencies may be offset by prepayments subject to recovery over a longer term if future purchases exceed the minimum annual requirements.

Environmental Matters

Refer to Note 17 for a discussion of environmental commitments and contingencies.

Remediation may include treatment of contaminated media such as sediment, soil and groundwater, removal and disposal of media, institutional controls such as legal restrictions on future property use, or natural recovery. Following construction of the remedy, the EPA and ODEQ also have requirements for ongoing maintenance, monitoring, and other post-remediation care that may continue for many years. Where appropriate and reasonably known, NW Natural will provide for these costs in the remediation liabilities described below.

Due to the numerous uncertainties surrounding the course of environmental remediation and the preliminary nature of several site investigations, in some cases, NW Natural may not be able to reasonably estimate the high end of the range of possible loss. In those cases, the nature of the possible loss has been disclosed, as has the fact that the high end of the range cannot be reasonably estimated where a range of potential loss is available. Unless there is an estimate within the range of possible losses that is more likely than other cost estimates within that range, NW Natural records the liability at the low end of this range. It is likely changes in these estimates and ranges will occur throughout the remediation process for each of these sites due to the continued evaluation and clarification concerning responsibility, the complexity of environmental laws and regulations, and the determination by regulators of remediation alternatives. In addition to remediation costs, NW Natural could also be subject to Natural Resource Damages (NRD) claims. NW Natural will assess the likelihood and probability of each claim and recognize a liability if deemed appropriate. Refer to "Other Portland Harbor" below.

Environmental Sites

The following table summarizes information regarding liabilities related to environmental sites, which are recorded in other current liabilities and other noncurrent liabilities in NW Natural's balance sheet at December 31:

<i>In thousands</i>	Current Liabilities		Non-Current Liabilities	
	2018	2017	2018	2017
Portland Harbor site:				
Gasco/Siltronic Sediments	\$ 5,117	\$ 2,683	\$ 44,351	\$ 45,346
Other Portland Harbor	2,600	1,949	6,273	4,163
Gasco/Siltronic Upland site	13,983	13,422	44,830	47,835
Central Service Center site	10	25	—	—
Front Street site	11,402	1,009	3	10,757
Oregon Steel Mills	—	—	179	179
Total	<u>\$ 33,112</u>	<u>\$ 19,088</u>	<u>\$ 95,636</u>	<u>\$ 108,280</u>

PORTLAND HARBOR SITE. The Portland Harbor is an EPA listed Superfund site that is approximately 10 miles long on the Willamette River and is adjacent to NW Natural's Gasco uplands sites. NW Natural is one of over one hundred PRPs to the Superfund site. In January 2017, the EPA issued its Record of Decision, which selects the remedy for the clean-up of the Portland Harbor site (Portland Harbor ROD). The Portland Harbor ROD estimates the present value total cost at approximately \$1.05 billion with an accuracy between -30% and +50% of actual costs.

NW Natural's potential liability is a portion of the costs of the remedy for the entire Portland Harbor Superfund site. The cost of that remedy is expected to be allocated among more than 100 PRPs. In addition, NW Natural is actively pursuing clarification and flexibility under the ROD in order to better understand its obligation under the clean-up. NW Natural is also participating in a non-binding allocation process with the other PRPs in an effort to resolve its potential liability. The Portland Harbor ROD does not provide any additional clarification around allocation of costs among PRPs and, as a result of the issuance of the Portland Harbor ROD, NW Natural has not modified any of the recorded liabilities at this time.

NW Natural manages its liability related to the Superfund site as two distinct remediation projects, the Gasco/Siltronic Sediments and Other Portland Harbor projects.

Gasco/Siltronic Sediments. In 2009, NW Natural and Siltronic Corporation entered into a separate Administrative Order on Consent with the EPA to evaluate and design specific remedies for sediments adjacent to the Gasco uplands and Siltronic uplands sites. NW Natural submitted a draft EE/CA to the EPA in May 2012 to provide the estimated cost of potential remedial alternatives for this site. At this time, the estimated costs for the various sediment remedy alternatives in the draft EE/CA, for the additional studies and design work needed before the cleanup can occur, and for regulatory oversight throughout the clean-up range from \$49.5 million to \$350 million. NW Natural has recorded a liability of \$49.5 million for the sediment clean-up, which reflects the low end of the range. At this time, we believe sediments at this site represent the largest portion of NW

Natural's liability related to the Portland Harbor site discussed above.

Other Portland Harbor. While we believe liabilities associated with the Gasco/Siltronic sediments site represent NW Natural's largest exposure, there are other potential exposures associated with the Portland Harbor ROD, including NRD costs and harborwide clean-up costs (including downstream petroleum contamination), for which allocations among the PRPs have not yet been determined.

NW Natural and other parties have signed a cooperative agreement with the Portland Harbor Natural Resource Trustee council to participate in a phased NRD assessment to estimate liabilities to support an early restoration-based settlement of NRD claims. One member of this Trustee council, the Yakama Nation, withdrew from the council in 2009, and in 2017, filed suit against NW Natural and 29 other parties seeking remedial costs and NRD assessment costs associated with the Portland Harbor, set forth in the complaint. The complaint seeks recovery of alleged costs totaling \$0.3 million in connection with the selection of a remedial action for the Portland Harbor as well as declaratory judgment for unspecified future remedial action costs and for costs to assess the injury, loss, or destruction of natural resources resulting from the release of hazardous substances at and from the Portland Harbor site. The Magistrate Judge has recommended granting NW Natural and certain other defendants' motion to stay the case. NW Natural has recorded a liability for NRD claims which is at the low end of the range of the potential liability; the high end of the range cannot be reasonably estimated at this time. The NRD liability is not included in the aforementioned range of costs provided in the Portland Harbor ROD.

GASCO UPLANDS SITE. A predecessor of NW Natural, Portland Gas and Coke Company, owned a former gas manufacturing plant that was closed in 1958 (Gasco site) and is adjacent to the Portland Harbor site described above. The Gasco site has been under investigation by NW Natural for environmental contamination under the ODEQ Voluntary Clean-Up Program (VCP). It is not included in the range of remedial costs for the Portland Harbor site noted above. The Gasco site is managed in two parts, the uplands portion and the groundwater source control action.

NW Natural submitted a revised Remedial Investigation Report for the uplands to ODEQ in May 2007. In March 2015, ODEQ approved the RA, enabling commencement of work on the FS in 2016. NW Natural has recognized a liability for the remediation of the uplands portion of the site which is at the low end of the range of potential liability; the high end of the range cannot be reasonably estimated at this time.

In October 2016, ODEQ and NW Natural agreed to amend their VCP agreement to incorporate a portion of the Siltronic property adjacent to the Gasco site formerly owned by Portland Gas & Coke between 1939 and 1960 into the Gasco RA and FS, excluding the uplands for Siltronic. Previously, NW Natural was conducting an investigation of manufactured gas plant constituents on the entire Siltronic uplands for ODEQ. Siltronic will be working with ODEQ directly on environmental impacts to the remainder of its property.

In September 2013, NW Natural completed construction of a groundwater source control system, including a water treatment station, at the Gasco site. NW Natural has estimated the cost associated with the ongoing operation of the system and has recognized a liability which is at the low end of the range of potential costs. NW Natural cannot estimate the high end of the range at this time due to the uncertainty associated with the duration of the operation of the water treatment station, which is highly dependent on the remedy determined for both the upland portion as well as the final remedy for Gasco sediment exposure.

OTHER SITES. In addition to those sites above, NW Natural has environmental exposures at three other sites: Central Service Center, Front Street, and Oregon Steel Mills. NW Natural may have exposure at other sites that have not been identified at this time. Due to the uncertainty of the design of remediation, regulation, timing of the remediation, and in the case of the Oregon Steel Mills site, pending litigation, liabilities for each of these sites have been recognized at their respective low end of the range of potential liability; the high end of the range cannot be reasonably estimated at this time.

Central Service Center site. NW Natural is currently performing an environmental investigation of the property under ODEQ's Independent Cleanup Pathway. This site is on ODEQ's list of sites with confirmed releases of hazardous substances, and cleanup is necessary.

Front Street site. The Front Street site was the former location of a gas manufacturing plant NW Natural operated (the former Portland Gas Manufacturing site, or PGM). At ODEQ's request, NW Natural conducted a sediment and source control investigation and provided findings to ODEQ. In December 2015, a FS on the former Portland Gas Manufacturing site was completed.

In July 2017, ODEQ issued the PGM ROD. The ROD specifies the selected remedy, which requires a combination of dredging, capping, treatment, and natural recovery. In addition, the selected remedy also requires institutional controls and long-term inspection and maintenance. NW Natural revised the liability in the second quarter of 2017 to

incorporate the estimated undiscounted cost of approximately \$10.5 million for the selected remedy. Further, NW Natural has recognized an additional liability of \$0.9 million for additional studies and design costs as well as regulatory oversight throughout the clean-up. NW Natural plans to complete the remedial design in early 2019 and expects to construct the remedy during 2019.

Oregon Steel Mills site. Refer to the "Legal Proceedings," below.

Site Remediation and Recovery Mechanism (SRRM)

NW Natural has an SRRM through which it tracks and has the ability to recover past deferred and future prudently incurred environmental remediation costs allocable to Oregon, subject to an earnings test, for those sites identified therein. In the February 2015 Order establishing the SRRM (2015 Order), the OPUC addressed outstanding issues related to the SRRM, which required NW Natural to forego the collection of \$15 million out of approximately \$95 million in total environmental remediation expenses and associated carrying costs.

As a follow-up to the 2015 Order, the OPUC issued an additional Order in January 2016 (2016 Order) regarding the SRRM implementation in which the OPUC: (1) disallowed the recovery of \$2.8 million of interest earned on the previously disallowed environmental expenditure amounts; (2) clarified the state allocation of 96.68% of environmental remediation costs for all environmental sites allocable to Oregon; and (3) confirmed NW Natural's treatment of \$13.8 million of expenses put into the SRRM amortization account was correct and in compliance with prior OPUC orders. As a result of the 2016 Order, NW Natural recognized a \$3.3 million non-cash charge in the first quarter, of which \$2.8 million is reflected in other income and expense, net and \$0.5 million is included in operations and maintenance expense.

COLLECTIONS FROM OREGON CUSTOMERS. Under the SRRM collection process there are three types of deferred environmental remediation expense:

- Pre-review - This class of costs represents remediation spend that has not yet been deemed prudent by the OPUC. Carrying costs on these remediation expenses are recorded at NW Natural's authorized cost of capital. NW Natural anticipates the prudence review for annual costs and approval of the earnings test prescribed by the OPUC to occur by the third quarter of the following year.
- Post-review - This class of costs represents remediation spend that has been deemed prudent and allowed after applying the earnings test, but is not yet included in amortization. NW Natural earns a carrying cost on these amounts at a rate equal to the five-year treasury rate plus 100 basis points.
- Amortization - This class of costs represents amounts included in current customer rates for collection and is generally calculated as one-fifth of the post-review deferred balance. NW Natural earns a carrying cost equal to the amortization rate determined annually by the OPUC, which approximates a short-term borrowing rate.

In addition to the collection amount noted above, the Order also provides for the annual collection of \$5.0 million from Oregon customers through a tariff rider. As NW Natural

collects amounts from customers, it recognizes these collections as revenue and separately amortizes an equal and offsetting amount of its deferred regulatory asset balance through the environmental remediation operating expense line shown separately in the operating expense section of the income statement.

NW Natural received total environmental insurance proceeds of approximately \$150.0 million as a result of settlements from litigation that was dismissed in July 2014. Under the 2015 OPUC Order, one-third of the Oregon allocated proceeds were applied to costs deferred through 2012 with the remaining two-thirds applied to costs at a rate of \$5.0 million per year plus interest over the following 20 years. NW Natural accrues interest on the insurance proceeds in the customer's favor at a rate equal to the five-year treasury rate plus 100 basis points. As of December 31, 2018, NW Natural has applied \$73.2 million of insurance proceeds to prudently incurred remediation costs allocated to Oregon.

The following table presents information regarding the total regulatory asset deferred as of December 31:

<i>In thousands</i>	2018	2017
Deferred costs and interest ⁽¹⁾	\$ 41,883	\$ 45,546
Accrued site liabilities ⁽²⁾	128,369	126,950
Insurance proceeds and interest	(88,502)	(94,170)
Total regulatory asset deferral ⁽¹⁾	\$ 81,750	\$ 78,326
Current regulatory assets ⁽³⁾	5,601	6,198
Long-term regulatory assets ⁽³⁾	76,149	72,128

⁽¹⁾ Includes pre-review and post-review deferred costs, amounts currently in amortization, and interest, net of amounts collected from customers.

⁽²⁾ Excludes 3.32% of the Front Street site liability, or \$0.4 million in 2018 and \$0.4 million in 2017, as the OPUC only allows recovery of 96.68% of costs for those sites allocable to Oregon, including those that historically served only Oregon customers.

⁽³⁾ Environmental costs relate to specific sites approved for regulatory deferral by the OPUC and WUTC. In Oregon, NW Natural earns a carrying charge on cash amounts paid, whereas amounts accrued but not yet paid do not earn a carrying charge until expended. NW Natural also accrues a carrying charge on insurance proceeds for amounts owed to customers. In Washington, a carrying charge related to deferred amounts will be determined in a future proceeding. Current environmental costs represent remediation costs management expects to collect from customers in the next 12 months. Amounts included in this estimate are still subject to a prudence and earnings test review by the OPUC and do not include the \$5.0 million tariff rider. The amounts allocable to Oregon are recoverable through NGD rates, subject to an earnings test.

ENVIRONMENTAL EARNINGS TEST. To the extent NW Natural earns at or below its authorized Return on Equity (ROE), remediation expenses and interest in excess of the \$5.0 million tariff rider and \$5.0 million insurance proceeds are recoverable through the SRRM. To the extent NW

Natural earns more than its authorized ROE in a year, it is required to cover environmental expenses and interest on expenses greater than the \$10.0 million with those earnings that exceed its authorized ROE.

Under the 2015 Order, the OPUC stated they would revisit the deferral and amortization of future remediation expenses, as well as the treatment of remaining insurance proceeds three years from the original Order, or earlier if NW Natural gains greater certainty about its future remediation costs, to consider whether adjustments to the mechanism may be appropriate. NW Natural filed an update with the OPUC in March 2018 and recommended no changes.

WASHINGTON DEFERRAL. In Washington, cost recovery and carrying charges on amounts deferred for costs associated with services provided to Washington customers will be determined in a future proceeding.

Legal Proceedings

NW Holdings is not currently party to any direct claims or litigation, though in the future it may be subject to claims and litigation arising in the ordinary course of business.

NW Natural is subject to claims and litigation arising in the ordinary course of business. Although the final outcome of any of these legal proceedings cannot be predicted with certainty, including the matter described below, NW Natural and NW Holdings do not expect that the ultimate disposition of any of these matters will have a material effect on financial condition, results of operations, or cash flows.

OREGON STEEL MILLS SITE. In 2004, NW Natural was served with a third-party complaint by the Port of Portland (the Port) in a Multnomah County Circuit Court case, Oregon Steel Mills, Inc. v. The Port of Portland. The Port alleges that in the 1940s and 1950s petroleum wastes generated by NW Natural's predecessor, Portland Gas & Coke Company, and 10 other third-party defendants, were disposed of in a waste oil disposal facility operated by the United States or Shaver Transportation Company on property then owned by the Port and now owned by Evraz Oregon Steel Mills. The complaint seeks contribution for unspecified past remedial action costs incurred by the Port regarding the former waste oil disposal facility as well as a declaratory judgment allocating liability for future remedial action costs. No date has been set for trial. In August 2017, the case was stayed pending outcome of the Portland Harbor allocation process or other mediation. Although the final outcome of this proceeding cannot be predicted with certainty, NW Natural and NW Holdings do not expect the ultimate disposition of this matter will have a material effect on NW Natural's or NW Holdings' financial condition, results of operations, or cash flows.

For additional information regarding other commitments and contingencies, see Note 16.

18. DISCONTINUED OPERATIONS

NW Holdings

On June 20, 2018, NWN Gas Storage, then a wholly-owned subsidiary of NW Natural, entered into a Purchase and Sale Agreement (the Agreement) that provides for the sale by NWN Gas Storage of all of the membership interests in Gill Ranch. Gill Ranch owns a 75% interest in the natural gas storage facility located near Fresno, California known as the Gill Ranch Gas Storage Facility. PG&E owns the remaining 25% interest in the Gill Ranch Gas Storage Facility. The CPUC regulates Gill Ranch under a market-based rate model which allows for the price of storage services to be set by the marketplace. The CPUC also regulates the issuance of securities, system of accounts, and regulates intrastate storage services.

The Agreement provides for an initial cash purchase price of \$25.0 million (subject to a working capital adjustment), plus potential additional payments to NWN Gas Storage of up to \$26.5 million in the aggregate if Gill Ranch achieves certain economic performance levels for the first three full gas storage years (April 1 of one year through March 31 of the following year) occurring after the closing and the remaining portion of the gas storage year during which the closing occurs.

We expect the transaction to close in 2019. The closing of the transaction is subject to approval by the CPUC, satisfaction of representations, warranties and covenants of the Agreement, and other customary closing conditions. In July 2018, Gill Ranch filed an application with the CPUC for approval of this transaction. On February 14, 2019, the active parties to the CPUC proceeding filed a settlement agreement with the CPUC. The CPUC is expected to rule on the settlement agreement within 90 days of its filing, but may grant further time for public comment. We expect an order on this matter by the end of June.

As a result of the strategic shift away from the California gas storage market and the significance of Gill Ranch's financial results in 2017, we concluded that the pending sale of Gill Ranch qualified it as assets and liabilities held for sale and discontinued operations. As such, the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and discontinued operations liabilities, respectively, and, the results of Gill Ranch are

presented, net of tax, as discontinued operations separate from the results of continuing operations for all periods presented. The expenses included in the results of discontinued operations are the direct operating expenses incurred by Gill Ranch that may be reasonably segregated from the costs of our continuing operations.

The following table presents the carrying amounts of the major components of Gill Ranch that are classified as discontinued operations assets and liabilities on NW Holdings' consolidated balance sheets:

<i>In thousands</i>	NW Holdings Discontinued Operations	
	2018	2017
Assets:		
Accounts receivable	\$ 390	\$ 2,126
Inventories	685	396
Other current assets	333	535
Property, plant, and equipment	11,621	10,816
Less: Accumulated depreciation	7	—
Other non-current assets	247	1
Discontinued operations - current assets	13,269	3,057
Discontinued operations - non-current assets	—	10,817
Total discontinued operations assets	\$ 13,269	\$ 13,874
Liabilities:		
Accounts payable	\$ 873	\$ 1,287
Other current liabilities	307	306
Other non-current liabilities	11,779	12,043
Discontinued operations - current liabilities	12,959	1,593
Discontinued operations - non-current liabilities	—	12,043
Total discontinued operations liabilities	\$ 12,959	\$ 13,636

⁽¹⁾ The total assets and liabilities of Gill Ranch are classified as current as of December 31, 2018 because it is probable that the sale will be completed within one year.

The following table presents the operating results of Gill Ranch, which was historically reported within the gas storage segment, and is presented net of tax on NW Holdings' consolidated statements of comprehensive income:

<i>In thousands, except per share data</i>	NW Holdings Discontinued Operations		
	2018	2017	2016
Revenues	\$ 3,579	\$ 7,135	\$ 7,794
Expenses			
Operations and maintenance	5,771	7,245	6,643
General taxes	479	1,373	1,295
Depreciation and amortization	430	4,525	4,685
Other expenses and interest	609	975	992
Impairment expense	—	192,478	—
Total expenses	7,289	206,596	13,615
Loss from discontinued operations before income tax	(3,710)	(199,461)	(5,821)
Income tax benefit ⁽¹⁾	(968)	(71,765)	(2,297)
Loss from discontinued operations, net of tax	\$ (2,742)	\$ (127,696)	\$ (3,524)
Loss from discontinued operations per share of common stock:			
Basic	\$ (0.10)	\$ (4.45)	\$ (0.13)
Diluted	\$ (0.09)	\$ (4.44)	\$ (0.13)

⁽¹⁾ 2017 income tax benefit includes approximately \$18 million of tax benefit from the enactment of the TCJA. The TCJA was enacted December 22, 2017 and resulted in the federal tax rate changing from 35% to 21%.

NW Natural

As part of the holding company reorganization in October 2018, NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings, which were direct and indirect subsidiaries of NW Natural prior to the reorganization, are no longer subsidiaries of NW Natural. See Note 1 for additional information. As a result, NW Natural's financial statements reflect amounts related to these entities as discontinued operations for all periods presented. The expenses included in the results of discontinued operations are the direct operating expenses incurred by the entities that may be reasonably segregated from the costs of NW Natural's continuing operations.

The following table presents the carrying amounts of the major components of NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings that are classified as discontinued operations assets and liabilities on NW Natural's consolidated balance sheets:

<i>In thousands</i>	NW Natural Discontinued Operations
	2017
Assets:	
Cash	\$ 362
Accounts receivable	2,126
Intercompany receivables	3,664
Inventories	396
Other current assets	622
Property, plant, and equipment	11,191
Less: Accumulated depreciation	192
Other investments	13,710
Other non-current assets	—
Discontinued operations - current assets	7,170
Discontinued operations - non-current assets	24,709
Total discontinued operations assets	\$ 31,879
Liabilities:	
Accounts payable	\$ 1,954
Intercompany payables	266
Other current liabilities	345
Deferred tax liabilities	(16,862)
Other non-current liabilities	12,130
Discontinued operations - current liabilities	2,565
Discontinued operations - non-current liabilities	(4,732)
Total discontinued operations liabilities	\$ (2,167)

The following table presents the operating results prior to the holding company reorganization effective October 1, 2018 of NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings, which were historically reported within the gas storage segment and other, and is presented net of tax on NW Natural's consolidated statements of comprehensive income:

NW Natural Discontinued Operations

<i>In thousands, except per share data</i>	2018	2017	2016
Revenues	\$ 3,016	\$ 7,360	\$ 8,018
Expenses			
Operations and maintenance	4,151	7,423	7,387
General taxes	448	1,410	1,317
Depreciation and amortization	420	4,555	4,714
Other expenses and interest	342	650	1,097
Impairment expense	—	192,478	—
Total expenses	5,361	206,516	14,515
Loss from discontinued operations before income tax	(2,345)	(199,156)	(6,497)
Income tax benefit ⁽¹⁾	(622)	(71,813)	(2,557)
Loss from discontinued operations, net of tax	\$ (1,723)	\$ (127,343)	\$ (3,940)

⁽¹⁾ 2017 income tax benefit includes approximately \$18 million of tax benefit from the enactment of the TCJA. The TCJA was enacted December 22, 2017 and resulted in the federal tax rate changing from 35% to 21%.

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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SUMMARY OF UTILITY PLANT AND ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION

Line No.	Item (a)	Total (b)
1	UTILITY PLANT	
2	In Service	
3	Plant in Service (Classified)	2,666,556,896
4	Property Under Capital Leases	—
5	Plant Purchased or Sold	—
6	Completed Construction not Classified	449,262,592
7	Experimental Plant Unclassified	—
8	TOTAL Utility Plant (Total of lines 3 thru 7)	3,115,819,488
9	Leased to Others	—
10	Held for Future Use	970,068
11	Construction Work in Progress	204,978,958
12	Acquisition Adjustments	—
13	TOTAL Utility Plant (Total of lines 8 thru 12)	3,321,768,514
14	Accumulated Provisions for Depreciation, Amortization, & Depletion	1,353,446,497
15	Net Utility Plant (Enter Total of line 13 less 14)	1,968,322,017
16	DETAIL OF ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION	
17	In Service:	
18	Depreciation	1,305,243,878
19	Amortization and Depl. of Producing Natural Gas Land and Land Rights	—
20	Amortization. of Underground Storage Land and Land Rights	30,436
21	Amortization. of Other Utility Plant	83,029,562
22	Salvage Work In Progress	—
23	Less Removal Work In Progress	34,857,379
24	TOTAL In Service (Total of lines 18 thru 22 less line 23)	1,353,446,497
25	Leased to Others	
26	Depreciation	—
27	Amortization and Depletion	—
28	TOTAL Leased to Others (Total of lines 26 and 27)	—
29	Held for Future Use	
30	Depreciation	—
31	Amortization	—
32	TOTAL Held for Future Use (Total of lines 30 and 31)	—
33	Abandonment of Leases (Natural Gas)	—
34	Amortization of Plant Acquisition Adjustment	—
35	TOTAL Accumulated Provisions (Should agree with line 14 above) (Total of lines 24, 28, 32, 33, and 34)	1,353,446,497

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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SUMMARY OF UTILITY PLANT AND ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION (Continued)

Electric (c)	Gas (d)	Other (Specify) (e)	Common (f)	Line No.
				1
				2
	2,666,556,896			3
	—			4
	—			5
	449,262,592			6
	—			7
	3,115,819,488			8
	—			9
	970,068			10
	204,978,958			11
	—			12
	3,321,768,514			13
	1,353,446,497			14
	1,968,322,017			15
				16
				17
	1,305,243,878			18
	—			19
	30,436			20
	83,029,562			21
	—			22
	34,857,379			23
	1,353,446,497			24
				25
	—			26
	—			27
	—			28
				29
	—			30
	—			31
	—			32
	—			33
	—			34
	1,353,446,497			35

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Gas Plant in Service (Accounts 101, 102, 103, and 106)

1. Report below the original cost of gas plant in service according to the prescribed accounts.
2. In addition to Account 101, Gas Plant in Service (Classified), this page and the next include Account 102, Gas Plant Purchased or Sold, Account 103, Experimental Gas Plant Unclassified, and Account 106, Completed Construction Not Classified-Gas.
3. Include in column (c) and (d), as appropriate corrections of additions and retirements for the current or preceding year.
4. Enclose in parenthesis credit adjustments of plant accounts to indicate the negative effect of such accounts.
5. Classify Account 106 according to prescribed accounts, on an estimated basis if necessary, and include the entries in column (c). Also to be included in column (c) are entries for reversals of tentative distributions of prior year reported in column (b). Likewise, if the respondent has a significant amount of plant retirements which have not been classified to primary accounts at the end of the year, include in column (d) a tentative distribution of such retirements, on an estimated basis, with appropriate contra entry to the account for accumulated depreciation provision. Include also in column (d) reversals of tentative distributions of prior year's unclassified retirements. Attach supplemental statement showing the account distributions of these tentative classifications in columns (c) and (d), including the reversals of the prior years tentative account distributions of these amounts. Careful observance of the above instructions and the texts of Account 101 and 106 will avoid serious omissions of respondent's reported amount for plant actually in service at end of year.
6. Show in column (f) reclassifications or transfers within utility plant accounts. Include also in column (f) the additions or reductions of primary account classifications arising from distribution of amounts initially recorded in Account 102. In showing the clearance of Account 102, include in column (e) the amounts with respect to accumulated provision for depreciation, acquisition adjustments, etc., and show in column (f) only the offset to the debits or credits to primary account classifications.
7. For Account 399, state the nature and use of plant included in this account and if substantial in amount submit a supplementary statement showing subaccount classification of such plant conforming to the requirements of these pages.
8. For each amount comprising the reported balance and changes in Account 102, state the property purchased or sold, name of vendor or purchaser, and date of transaction. If proposed journal entries have been filed with the Commission as required by the Uniform System of Accounts, give date of such filing.

SEE FOLLOWING PAGES

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class	Beginning					Ending
FERC Plant Account	Balance	Additions	Retirements	Transfers	Adjustments	Balance*
UTILITY						
Intangible Plant						
301 ORGANIZATION	1,174	—	—	—	—	1,174
302 FRANCHISES & CONSENTS	83,621	—	—	—	—	83,621
303.1 COMPUTER SOFTWARE	67,997,562	11,892,216	—	—	—	79,889,778
303.2 CUSTOMER INFORMATION SYSTEM	32,348,168	—	—	—	—	32,348,168
303.3 INDUSTRIAL & COMMERCIAL BIL	4,146,951	—	—	—	—	4,146,951
303.4 CRMS	682,893	—	—	—	—	682,893
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—
Intangible Plant Subtotal*	105,260,369	11,892,216	—	—	—	117,152,584
Production Plant - Oil Gas						
304.1 LAND	24,998	—	—	—	—	24,998
305.2 P P O G STRU & IMPR-SEWER S	—	—	—	—	—	—
305.5 P P O G STRU & IMPR-OTHER Y	13,156	—	—	—	—	13,156
312.3 P P O G FUEL HANDLING AND S	—	—	—	—	—	—
318.3 P P O G LIGHT OIL REFINING	144,896	—	—	—	—	144,896
318.5 P P O G TAR PROCESSING	243,551	—	—	—	—	243,551
325 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—
327 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
328 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—
331 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
332 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
333 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
334 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
Production Plant - Oil Gas Subtotal*	426,601	—	—	—	—	426,601
Production Plant - Other						
305.11 GAS PRODUCTION - COTTAGE G	8,320	—	—	—	—	8,320
305.17 STRUCTURES MIXING STATION	46,587	—	—	—	—	46,587
311 P P OTHER-LIQUIFIED PETROLE	—	—	—	—	—	—
311.4 P P OTHER-L P G GRANGER	—	—	—	—	—	—
311.7 LIQUIFIED GAS EQUIPMENT COO	4,033	—	—	—	—	4,033
311.8 LIQUIFIED GAS EQUIPMENT LIN	4,209	—	—	—	—	4,209
319 GAS MIXING EQUIPMENT GASCO	185,448	—	—	—	—	185,448
Production Plant - Other Subtotal*	248,597	—	—	—	—	248,597

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class	Beginning					Ending
FERC Plant Account	Balance	Additions	Retirements	Transfers	Adjustments	Balance*
UTILITY						
Natural Gas Underground Storage						
350.1	LAND	106,549	—	—	—	106,549
350.2	RIGHTS-OF-WAY	109,625	—	—	—	109,625
351	STRUCTURES AND IMPROVEMENTS	7,382,069	1,249,794	—	—	8,631,863
352	WELLS	20,047,076	3,214,738	—	—	23,261,814
352.1	STORAGE LEASEHOLD & RIGHTS	3,938,491	—	—	—	3,938,491
352.2	RESERVOIRS	7,272,553	—	—	—	7,272,553
352.3	NON-RECOVERABLE NATURAL GAS	6,440,890	—	—	—	6,440,890
353	LINES	6,552,220	722,493	—	—	7,274,713
354	COMPRESSOR STATION EQUIPMENT	31,352,716	—	—	—	31,352,716
355	MEASURING / REGULATING EQUIPM	7,408,127	—	—	—	7,408,127
356	PURIFICATION EQUIPMENT	297,363	66,243	—	—	363,606
357	OTHER EQUIPMENT	1,332,029	1,025,666	—	—	2,357,694
	Natural Gas Underground Storage Subtotal*	92,239,708	6,278,933	—	—	98,518,641
Local Storage Plant						
360.11	LAND - LNG LINNTON	83,598	—	—	—	83,598
360.12	LAND - LNG NEWPORT	536,675	—	—	—	536,675
360.2	LAND - OTHER	106,557	—	—	—	106,557
361.11	STRUCTURES & IMPROVEMENTS	5,068,838	5,530,913	—	—	10,599,751
361.12	STRUCTURES & IMPROVEMENTS	10,013,761	1,914,526	—	—	11,928,288
361.2	STRUCTURES & IMPROVEMENTS -	26,757	—	—	—	26,757
362.11	GAS HOLDERS - LNG LINNTON	4,556,064	—	—	—	4,556,064
362.12	GAS HOLDERS - LNG NEWPORT	5,927,104	—	—	—	5,927,104
362.2	GAS HOLDERS - LNG OTHER	1,600	—	—	—	1,600
363.11	LIQUEFACTION EQUIP. - LINN	3,308,902	10,509	—	—	3,319,411
363.12	LIQUEFACTION EQUIP - NEWPO	10,725,181	4,858,270	—	—	15,583,451
363.21	VAPORIZING EQUIP - LINNTON	4,458,618	—	—	—	4,458,618
363.22	VAPORIZING EQUIP - NEWPORT	3,739,813	—	—	—	3,739,813
363.31	COMPRESSOR EQUIP - LINNTON	180,903	—	—	—	180,903
363.32	COMPRESSOR EQUIPMENT - NE	4,366,715	256,596	—	—	4,623,311
363.41	MEASURING & REGULATING EQU	2,451,772	426,476	—	—	2,878,248
363.42	MEASURING & REGULATING EQU	10,289,895	155,335	—	—	10,445,230
363.5	CNG REFUELING FACILITIES	3,051,295	—	—	—	3,051,295
363.6	LNG REFUELING FACILITIES	739,473	—	—	—	739,473
	Local Storage Plant Subtotal*	69,633,523	13,152,626	—	—	82,786,149

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

						Period Beginning:	January 2018
						Period Ending:	December 2018
Functional Class		Beginning					Ending
FERC Plant Account		Balance	Additions	Retirements	Transfers	Adjustments	Balance*
UTILITY							
Transmission Plant							
365.1	LAND	89,772	925,825	—	—	—	1,015,597
365.2	LAND RIGHTS	6,455,177	—	—	—	—	6,455,177
366.3	STRUCTURES & IMPROVEMENTS -	1,546,073	—	—	—	—	1,546,073
367	MAINS	154,526,573	14,839,807	—	—	—	169,366,379
367.21	NORTH MIST TRANSMISSION LI	1,994,582	—	—	—	—	1,994,582
367.22	SOUTH MIST TRANSMISSION LI	14,949,264	—	—	—	—	14,949,264
367.23	SOUTH MIST TRANSMISSION LI	34,881,341	—	—	—	—	34,881,341
367.24	11.7M S MIST TRANS LINE	17,466,182	—	—	—	—	17,466,182
367.25	12M NORTH S MIST TRANS	18,613,651	—	—	—	—	18,613,651
367.26	38M NORTH S MIST TRANS	68,232,676	—	—	—	—	68,232,676
368	TRANSMISSION COMPRESSOR	—	—	—	—	—	—
369	MEASURING & REGULATE STATION	3,969,549	—	—	—	—	3,969,549
370	COMMUNICATION EQUIPMENT	—	—	—	—	—	—
	Transmission Plant Subtotal*	322,724,840	15,765,632	—	—	—	338,490,472
Distribution Plant							
374.1	LAND	85,773	—	—	—	—	85,773
374.2	LAND RIGHTS	1,883,762	2,386	—	—	—	1,886,148
375	STRUCTURES & IMPROVEMENTS	1,417,773	101,786	—	—	—	1,519,558
376.11	MAINS < 4"	591,543,490	22,607,322	(219,323)	—	—	613,931,489
376.12	MAINS 4" & >	546,064,213	35,264,360	(364,262)	—	—	580,964,310
377	COMPRESSOR STATION EQUIPMENT	818,380	—	—	—	—	818,380
378	MEASURING & REG EQUIP - GENER	34,412,772	2,702,049	—	—	—	37,114,821
379	MEASURING & REG EQUIP - GATE	10,845,581	2,861,686	—	—	—	13,707,266
380	SERVICES	768,541,097	34,068,629	(1,714,774)	—	—	800,894,952
381	METERS	87,564,438	5,841,982	(1,576,280)	—	—	91,830,141
381.1	METERS (ELECTRONIC)	1,696,938	—	—	—	—	1,696,938
381.2	ERT (ENCODER RECEIVER TRANS	43,000,565	3,018,407	(1,074,843)	—	—	44,944,129
382	METER INSTALLATIONS	60,809,058	4,060,888	(2,778,764)	—	—	62,091,182
382.1	METER INSTALLATIONS (ELECTR	481,020	—	—	—	—	481,020
382.2	ERT INSTALLATION (ENCODER	9,295,324	—	(125,764)	—	—	9,169,560
383	HOUSE REGULATORS	1,871,924	331,815	—	—	—	2,203,738
386	OTHER PROPERTY ON CUSTOMERS P	1,100,432	61,678	—	—	—	1,162,110
386.1	MULTI-FAMILY METER ROOMS	—	141,536	—	—	—	141,536
387.1	CATHODIC PROTECTION TESTING	173,859	—	—	—	—	173,859
387.2	CALORIMETERS @ GATE STATIONS	96,424	—	—	—	—	96,424
387.3	METER TESTING EQUIPMENT	72,671	—	—	—	—	72,671
	Distribution Plant Subtotal*	2,161,775,493	111,064,524	(7,854,009)	—	—	2,264,986,007

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018
 Period Ending: December 2018

Functional Class	Beginning					Ending
FERC Plant Account	Balance	Additions	Retirements	Transfers	Adjustments	Balance*
UTILITY						
General Plant						
389 LAND	10,767,907	—	—	—	—	10,767,907
390 STRUCTURES & IMPROVEMENTS	60,375,857	11,102,624	—	—	—	71,478,482
390.1 SOURCE CONTROL PLANT	19,297,642	3,675	—	—	—	19,301,317
391.1 OFFICE FURNITURE & EQUIPMEN	11,480,104	359,001	(3,704,724)	—	—	8,134,381
391.2 COMPUTERS	26,375,380	7,170,248	(6,416,184)	—	—	27,129,445
391.3 ON SITE BILLING	—	—	—	—	—	—
391.4 CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—
392 TRANSPORTATION EQUIPMENT	42,561,613	5,725,924	(1,541,208)	—	—	46,746,329
393 STORES EQUIPMENT	119,406	—	—	—	—	119,406
394 TOOLS - SHOP & GARAGE EQUIPUI	11,859,950	1,309,852	—	—	—	13,169,801
395 LABORATORY EQUIPMENT	68,293	—	(68,016)	—	—	277
396 POWER OPERATED EQUIPMENT	10,044,972	1,761,066	(549,609)	—	—	11,256,429
397 GEN PLANT-COMMUNICATION EQU	88,322	—	—	—	—	88,322
397.1 MOBILE	475,621	54,370	(475,621)	—	—	54,370
397.2 OTHER THAN MOBILE & TELEMET	1,690,854	—	(1,680,896)	—	—	9,958
397.3 TELEMETERING - OTHER	4,712,298	94,317	(2,807,778)	—	—	1,998,836
397.4 TELEMETERING - MICROWAVE	2,852,797	—	(497,290)	—	—	2,355,508
397.5 TELEPHONE EQUIPMENT	490,767	—	—	—	—	490,767
398 GEN PLANT-MISCELLANEOUS EQU	—	—	—	—	—	—
398.1 PRINT SHOP	83,249	—	(78,890)	—	—	4,359
398.2 KITCHEN EQUIPMENT	12,812	—	—	—	—	12,812
398.3 JANITORIAL EQUIPMENT	14,873	—	—	—	—	14,873
398.4 INSTALLED IN LEASED BUILDINGS	10,120	—	—	—	—	10,120
398.5 OTHER MISCELLANEOUS EQUIPMENT	66,739	—	—	—	—	66,739
General Plant Subtotal*	203,449,576	27,581,076	(17,820,216)	—	—	213,210,437
Utility Property Grand Total*	2,955,758,707	185,735,006	(25,674,225)	—	—	3,115,819,487

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class		Beginning					Ending
FERC Plant Account		Balance	Additions	Retirements	Transfers	Adjustments	Balance*
NON-UTILITY							
Intangible Plant							
303.1	COMPUTER SOFTWARE	163,357	—	—	—	—	163,357
303.2	CUSTOMER INFORMATION SYSTEM	61,429	—	—	—	—	61,429
Non Utility	Intangible Plant Subtotal*	224,786	—	—	—	—	224,786
Natural Gas Underground Storage							
352	WELLS	16,940,451	—	—	—	—	16,940,451
352.1	STORAGE LEASEHOLD & RIGHTS	1,020	—	—	—	—	1,020
352.2	RESERVOIRS	3,561,501	—	—	—	—	3,561,501
353	LINES	1,649,744	639,665	—	—	—	2,289,408
354	COMPRESSOR STATION EQUIPMENT	13,299,843	—	—	—	837	13,300,680
355	MEASURING / REGULATING EQUIPM	8,876,730	369,595	—	—	—	9,246,325
357	OTHER EQUIPMENT	63,256	—	—	—	—	63,256
Non Utility	Natural Gas Underground Storage Subtotal*	44,392,546	1,009,259	—	—	838	45,402,642
Transmission Plant							
368	TRANSMISSION COMPRESSOR	7,723,454	—	—	—	—	7,723,454
Non Utility	Transmission Plant Subtotal*	7,723,454	—	—	—	—	7,723,454
Distribution Plant							
376.12	MAINS 4" & >	878,618	—	—	—	—	878,618
Non Utility	Distribution Plant Subtotal*	878,618	—	—	—	—	878,618
General Plant							
389	LAND	438,739	—	—	—	—	438,739
390	STRUCTURES & IMPROVEMENTS	238,469	837	—	—	—	239,306
Non Utility	General Plant Subtotal*	677,208	837	—	—	—	678,045

ACCOUNT SUMMARY BY FUNCTIONAL CLASS
NW Natural

Period Beginning: January 2018
Period Ending: December 2018

Functional Class	Beginning					Ending
FERC Plant Account	Balance	Additions	Retirements	Transfers	Adjustments	Balance*
NON-UTILITY						
Non Utility Other						
121.1 NON-UTIL PROP-DOCK	1,946,033	—	—	—	—	1,946,033
121.2 NON-UTIL PROP-LAND	125,102	—	—	—	—	125,102
121.3 NON-UTIL PROP-OIL ST	4,635,180	—	—	—	—	4,635,180
121.7 NON-UTIL PROP-APPL CENTER	64,906	—	—	—	—	64,906
121.8 NON-UTIL PROP-STORAGE	96,038	—	—	—	—	96,038
Non Utility Other*	6,867,259	—	—	—	—	6,867,259
<hr/>						
Non Utility Property Grand Total*	60,763,871	1,010,096	—	—	837	61,774,804

Non Utility Property Summary

Non Utility Property Grand Total	61,774,804
121117 Gas Stored Underground - St. Helens	4,233,414
121707-8 Construction Work in Progress Non Utility	5,330,199
Balance Sheet Total for Non Utility Property*	<u><u>71,338,418</u></u>

* May not foot due to rounding.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Gas Property And Capacity Leased From Others

1. Report below the information called for concerning gas property and capacity leased from others for gas operations.
2. For all leases in which the average annual lease payment over the initial term of the lease exceeds \$500,000, describe in column (c), if applicable: the property or capacity leased. Designate associated companies with an asterisk in column (b).

Line No.	Name of Lessor (a)	*	Description of Lease (c)	Lease Payments for Current Year (d)
1	Northwest Pipeline		Pipeline Capacity	49,008,387
2	TMC "Nova and ANG"		Pipeline Capacity	10,560,697
3	Fortis BC		Pipeline Capacity	7,201,259
4	TransCanada "Gas Trans NW"		Pipeline Capacity	4,842,866
5	Tenaska Marketing Cdn. "Southern Crossing"		Pipeline Capacity	3,823,395
6	One Pacific Square LLC		Corporate Headquarter Building	4,442,820
7	Tenaska Marketing Ventures		Pipeline Capacity	1,942,883
8	International Paper		Pipeline Capacity	480,192
9	KB Pipeline	*	Pipeline Capacity	224,258
10	Coos County Pipeline		Pipeline Capacity	211,359
11	J Aron		Pipeline Capacity	169,830
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34				
35	Total			82,907,946

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Gas Plant Held for Future Use (Account 105)

1. Report separately each property held for future use at end of the year having an original cost of \$1,000,000 or more. Group property held for future use.

2. For property having an original cost of \$1,000,000 or more previously used in utility operations, now held for future use, give in column (a), in addition to other required information, the date that utility use of such property was discontinued, and the date the original cost was transferred to Account 105.

Line No.	Description and Location of Property (a)	Date Originally Included in this account (b)	Date Expected to be Used in Utility Service (c)	Balance at End of Year (d)
1	Underground Storage	07/2009	Undetermined	127,921
2	Easement	11/2011	Undetermined	136,720
3	Willamette River Crossing - Engineering Costs	05/2015	Undetermined	705,427
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35	Total			970,068

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Construction Work in Progress - Gas (Account 107)

1. Report below descriptions and balances at end of year of projects in process of construction (Account 107)
2. Show items relating to "research, development, and demonstration" projects last, under a caption Research, Development, and Demonstration (see Account 107 of the Uniform System of Accounts).
3. Minor projects (less than \$1,000,000) may be grouped.

Line No.	Description of Project (a)	Construction Work in Progress - Gas (Account 107) (b)	Estimated Additional Cost of Project (c)
1	North Mist Expansion Project	130,427,721	18,571,616
2	Misc Information Services Projects	17,372,758	17,503,537
3	Other, less than \$1M each	16,611,978	7,158,756
4	Mains and Service Jobs	11,253,188	23,161,611
5	Misc Facilities Projects	2,178,330	1,942,659
6	Portland LNG Readiness	669,992	2,654,028
7	Newport LNG Readiness	417,920	5,685,217
8	HQ Building ⁽¹⁾	26,047,071	See Note (1)
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34	Total	204,978,958	76,677,424

(1) The balance at 12/31/18 represented the cost of the build-to-suit of NW Natural's new corporate headquarters. The current accounting for leases requires us to record these costs as NW Natural was determined to be the accounting owner. New accounting guidance in 2019 removed this accounting classification and as such the asset above and its associated liability will be derecognized.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GENERAL DESCRIPTION OF CONSTRUCTION OVERHEAD PROCEDURE

1. For each construction overhead explain: (a) the nature and extent of work, etc., the overhead charges are intended to cover, (b) the general procedure for determining the amount capitalized, (c) the method of distribution to construction jobs, (d) whether different rates are applied to different types of construction, (e) basis of differentiation in rates for different types of construction, and (f) whether the overhead is directly or indirectly assigned.

2. Show below the computation of allowance for funds used during construction rates, in accordance with the provisions of Gas Plant Instructions 3 917) of the Uniform System of Accounts.

3. Where a net-of-tax rate for borrowed funds is used, show the appropriate tax effect adjustment to the computations below in a manner that clearly indicates the amount of reduction in the gross rate for tax effects.

GENERAL DESCRIPTION OF CONSTRUCTION OVERHEAD PROCEDURE

1. Engineering Department overhead covers transmission and distribution system planning, design work, drafting and platting of construction work.
 - a) Distribution Department overhead covers transmission and distribution system work scheduling, field supervision and processing of work completed.
 - Administrative work overhead includes Purchasing, Accounting and general office expense.
 - General Services Department overhead covers planning and supervision of general plant improvements and facilities.
 - b) Charges during the year are segregated into overhead accounts based on the proportion of activity devoted to construction work. Construction Overheads are being charged to individual work orders based upon overhead rates for different types of projects. Rates are determined by type of project using the annual capital budget and annual construction overhead budget.
 - c) Different rates are applied to different types of construction based on the annual capital budget for each type of plant.
 - e) Actual construction overhead rates applied to types of work in:

2018	
a. Production, Storage, Transmission and Distribution plant	38%
b. Meters	87%
c. General Plant	11%
d. Non-Utility Property	1%
 - f) Direct assignment of construction overhead capitalized during:

2018	
48,528,741	
2. ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION (AFUDC)
AFUDC is applied to previous month's ending balance plus half of current month's expenditures of Construction Work in Progress (CWIP).
 3. N/A

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GENERAL DESCRIPTION OF CONSTRUCTION OVERHEAD PROCEDURE (CONTINUED)

COMPUTATION OF ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION RATES

1. For Line (5), column (d) below, enter the rate granted in the last rate proceeding. If not available, use the average rate earned during the preceding 3 years.
2. Identify, in a footnote, the specific entity used as the source for the capital structure figures.
3. Indicate, in a footnote, if the reported rate of return is one that has been approved in a rate case, black-box settlement rate, or an actual three-year average rate.

Line No.	Title (a)	Amount (b)	Capitalization Ration (percent) (c)	Cost Rate Percentage (d)
	(1) Average Short-Term Debt	S 74,181,068		
	(2) Short-Term Interest			s 3.06%
	(3) Long-Term Debt	D 786,700,000	—	d 5.184%
	(4) Preferred Stock	P —	—	p —%
	(5) Common Equity	C 708,770,846	—	c 9.40%
	(6) Total Capitalization	—	100.00%	
	(7) Average Construction Work in Progress	W 174,065,707		
2.	Gross Rates for Borrowed Funds	$s(S/W)+d[(D/(D+P+C))(1-(S/W))]$		2.87%
3.	Rate for Other Funds	$[1-(S/W)] [p(P/(D+P+C))+c(C/(D+P+C))]$		2.56%
4.	Weighted Average Rate Actually Used for the Year			
	a. Rate for Borrowed Funds -			2.82%
	b. Rate for Other Funds -			2.33%

NOTE: Capital structure figures are for NW Natural Gas Company and rate of return was approved by the OPUC rate case.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Accumulated Provision for Depreciation of Gas Utility Plant (Account 108)

1. Explain in a footnote any important adjustments during year.
2. Explain in a footnote any difference between the amount for book cost of plant retired, line 10, column (c), and that reported for gas plant in service, page 204-209, column (d), excluding retirements of nondepreciable property.
3. The provisions of Account 108 in the Uniform System of Accounts require that retirements of depreciable plant be recorded when such plant is removed from service. If the respondent has a significant amount of plant retired at year end which has not been recorded and/or classified to the various reserve functional classifications, make preliminary closing entries to tentatively functionalize the book cost of the plant retired. In addition, include all costs included in retirement work in progress at year end in the appropriate functional classifications.
4. Show separately interest credits under a sinking fund or similar method of depreciation accounting.
5. At lines 7 and 14, add rows as necessary to report all data. Additional rows should be numbered in sequence, e.g., 7.01, 7.02, etc.

SEE FOLLOWING PAGES

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
Intangible Plant								
301 ORGANIZATION	—	—	—	—	—	—	—	—
302 FRANCHISES & CONSENTS	—	—	—	—	—	—	—	—
303.1 COMPUTER SOFTWARE	26,060,764	3,411,690	—	—	—	—	—	29,472,454
303.2 CUSTOMER INFORMATION SYSTEM	32,348,168	—	—	—	—	—	—	32,348,168
303.3 INDUSTRIAL & COMMERCIAL BIL	4,146,951	—	—	—	—	—	—	4,146,951
303.4 CRMS	682,893	—	—	—	—	—	—	682,893
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—	—	—
Intangible Plant Subtotal*	63,238,775	3,411,690	—	—	—	—	—	66,650,465
Production Plant - Oil Gas								
304.1 LAND	—	—	—	—	—	—	—	—
305.2 P P O G STRU & IMPR-SEWER S	—	—	—	—	—	—	—	—
305.5 P P O G STRU & IMPR-OTHER Y	13,814	—	—	—	—	—	—	13,814
312.3 P P O G FUEL HANDLING AND S	—	—	—	—	—	—	—	—
318.3 P P O G LIGHT OIL REFINING	152,141	—	—	—	—	—	—	152,141
318.5 P P O G TAR PROCESSING	255,729	—	—	—	—	—	—	255,729
325 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—	—	—
327 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
328 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—	—	—
331 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
332 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
333 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
334 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
Production Plant - Oil Gas Subtotal*	421,683	—	—	—	—	—	—	421,683
Production Plant - Other								
305.11 GAS PRODUCTION - COTTAGE G	8,736	—	—	—	—	—	—	8,736
305.17 STRUCTURES MIXING STATION	51,246	—	—	—	—	—	—	51,246
311 P P OTHER-LIQUEFIED PETROLE	—	—	—	—	—	—	—	—
311.4 P P OTHER-L P G GRANGER	—	—	—	—	—	—	—	—
311.7 LIQUIFIED GAS EQUIPMENT COO	8,066	—	—	—	—	—	—	8,066
311.8 LIQUIFIED GAS EQUIPMENT LIN	6,585	—	—	—	—	—	—	6,585
319 GAS MIXING EQUIPMENT GASCO	194,720	—	—	—	—	—	—	194,720
Production Plant - Other Subtotal*	269,353	—	—	—	—	—	—	269,353

RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS

NW NATURAL

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
Natural Gas Underground Storage								
350.1 LAND	—	—	—	—	—	—	—	—
350.2 RIGHTS-OF-WAY	28,695	1,741	—	—	—	—	—	30,436
351 STRUCTURES AND IMPROVEMENTS	2,789,826	134,489	—	—	—	—	—	2,924,316
352 WELLS	11,805,512	450,171	—	—	—	—	—	12,255,683
352.1 STORAGE LEASEHOLD & RIGHTS	1,670,417	74,963	—	—	—	—	—	1,745,379
352.2 RESERVOIRS	2,530,955	142,784	—	—	—	—	—	2,673,739
352.3 NON-RECOVERABLE NATURAL GAS	3,440,885	117,761	—	—	—	—	—	3,558,645
353 LINES	3,176,072	138,657	—	—	—	—	—	3,314,729
354 COMPRESSOR STATION EQUIPMENT	18,729,797	800,020	—	—	—	—	—	19,529,817
355 MEASURING / REGULATING EQUIPM	4,583,709	161,989	—	—	—	—	—	4,745,697
356 PURIFICATION EQUIPMENT	232,445	7,591	—	—	—	—	—	240,036
357 OTHER EQUIPMENT	857,756	42,605	—	—	—	—	—	900,361
Natural Gas Underground Storage Subtotal*	49,846,067	2,072,772	—	—	—	—	—	51,918,839
Local Storage Plant								
360.11 LAND - LNG LINNTON	—	—	—	—	—	—	—	—
360.12 LAND - LNG NEWPORT	—	—	—	—	—	—	—	—
360.2 LAND - OTHER	—	—	—	—	—	—	—	—
361.11 STRUCTURES & IMPROVEMENTS	2,440,507	319,901	—	—	—	—	—	2,760,407
361.12 STRUCTURES & IMPROVEMENTS	2,278,225	343,807	—	—	—	—	—	2,622,032
361.2 STRUCTURES & IMPROVEMENTS -	11,425	467	—	—	—	—	—	11,891
362.11 GAS HOLDERS - LNG LINNTON	2,343,855	108,814	—	—	—	—	—	2,452,669
362.12 GAS HOLDERS - LNG NEWPORT	5,735,573	158,352	—	—	—	—	—	5,893,926
362.2 GAS HOLDERS - LNG OTHER	1,213	20	—	—	—	—	—	1,234
363.11 LIQUEFACTION EQUIP. - LINN	2,561,759	87,116	—	—	—	—	—	2,648,875
363.12 LIQUEFACTION EQUIP - NEWPO	7,149,990	92,264	—	—	—	—	—	7,242,254
363.21 VAPORIZING EQUIP - LINNTON	2,396,494	55,510	—	—	—	—	—	2,452,004
363.22 VAPORIZING EQUIP - NEWPORT	290,733	22,029	—	—	—	—	—	312,762
363.31 COMPRESSOR EQUIP - LINNTON	206,897	—	—	—	—	—	—	206,897
363.32 COMPRESSOR EQUIPMENT - NE	553,366	231,307	—	—	—	—	—	784,673
363.41 MEASURING & REGULATING EQU	610,581	19,747	—	—	—	—	—	630,328
363.42 MEASURING & REGULATING EQU	190,155	61,423	—	—	—	—	—	251,578
363.5 CNG REFUELING FACILITIES	1,392,264	39,769	—	—	—	—	—	1,432,033
363.6 LNG REFUELING FACILITIES	739,473	—	—	—	—	—	—	739,473
Local Storage Plant Subtotal*	28,902,511	1,540,526	—	—	—	—	—	30,443,037

RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL

Period Beginning: January 2018
Period Ending: December 2018

Functional Class	Beginning			Cost of	Salvage and	Transfers and		Ending
FERC Plant Account	Reserve	Provision	Retirements	Removal	Other Credits	Adjustments	Loss/(Gain)	Reserve*
UTILITY								
Transmission Plant								
365.1	LAND	—	—	—	—	—	—	—
365.2	LAND RIGHTS	2,008,335	118,022	—	—	—	—	2,126,357
366.3	STRUCTURES & IMPROVEMENTS -	329,124	29,633	—	—	—	—	358,757
367	MAINS	32,552,224	4,535,742	—	—	—	—	37,087,966
367.21	NORTH MIST TRANSMISSION LI	1,129,936	47,429	—	—	—	—	1,177,365
367.22	SOUTH MIST TRANSMISSION LI	10,669,024	346,007	—	—	—	—	11,015,031
367.23	SOUTH MIST TRANSMISSION LI	13,688,539	888,735	—	—	—	—	14,577,274
367.24	11.7M S MIST TRANS LINE	5,724,229	433,372	—	—	—	—	6,157,601
367.25	12M NORTH S MIST TRANS	5,793,077	465,256	—	—	—	—	6,258,333
367.26	38M NORTH S MIST TRANS	21,421,198	1,699,818	—	—	—	—	23,121,017
368	TRANSMISSION COMPRESSOR	(9)	—	—	—	—	—	(9)
369	MEASURING & REGULATE STATION	1,551,358	102,740	—	—	—	—	1,654,098
370	COMMUNICATION EQUIPMENT	—	—	—	—	—	—	—
	Transmission Plant Subtotal*	94,867,034	8,666,755	—	—	—	—	103,533,789
Distribution Plant								
374.1	LAND	—	—	—	—	—	—	—
374.2	LAND RIGHTS	1,561,621	119,540	—	—	—	—	1,681,161
375	STRUCTURES & IMPROVEMENTS	86,857	5,118	—	—	—	—	91,974
376.11	MAINS < 4"	325,049,387	15,153,745	(219,323)	(945,330)	40,352	—	339,078,831
376.12	MAINS 4" & >	223,103,421	13,447,225	(364,262)	(1,133,889)	37,044	—	235,089,539
377	COMPRESSOR STATION EQUIPMENT	649,465	17,691	—	—	—	—	667,156
378	MEASURING & REG EQUIP - GENER	12,249,857	766,849	—	—	—	—	13,016,706
379	MEASURING & REG EQUIP - GATE	2,454,531	480,518	—	—	—	—	2,935,048
380	SERVICES	406,252,227	21,397,788	(1,714,774)	(2,079,495)	—	—	423,855,747
381	METERS	23,080,068	2,087,140	(1,576,280)	—	—	—	23,590,928
381.1	METERS (ELECTRONIC)	1,653,033	291,035	—	—	—	—	1,944,068
381.2	ERT (ENCODER RECEIVER TRANS	21,102,043	2,877,188	(1,074,843)	—	—	—	22,904,389
382	METER INSTALLATIONS	6,993,222	1,704,060	(2,778,764)	—	—	—	5,918,519
382.1	METER INSTALLATIONS (ELECTR	63,514	16,478	—	—	—	—	79,992
382.2	ERT INSTALLATION (ENCODER	5,469,140	572,711	(125,764)	—	—	—	5,916,087
383	HOUSE REGULATORS	266,532	60,684	—	—	—	—	327,216
386	OTHER PROPERTY ON CUSTOMERS P	—	141,299	—	—	—	—	141,299
386.1	MULTI-FAMILY METER ROOMS	—	901	—	—	—	—	901
387.1	CATHODIC PROTECTION TESTING	142,388	1,034	—	—	—	—	143,422
387.2	CALORIMETERS @ GATE STATIONS	96,424	—	—	—	—	—	96,424
387.3	METER TESTING EQUIPMENT	72,671	—	—	—	—	—	72,671
	Distribution Plant Subtotal*	1,030,346,401	59,141,004	(7,854,009)	(4,158,713)	77,396	—	1,077,552,079

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
General Plant								
389 LAND	437,351	—	—	—	—	—	—	437,351
390 STRUCTURES & IMPROVEMENTS	10,636,914	1,259,469	—	—	—	—	—	11,896,383
390.1 SOURCE CONTROL PLANT	4,268,989	913,588	—	—	—	—	—	5,182,577
391.1 OFFICE FURNITURE & EQUIPMEN	8,210,159	814,384	(3,704,724)	—	—	—	—	5,319,819
391.2 COMPUTERS	16,217,939	4,896,182	(6,416,184)	—	—	—	—	14,697,937
391.3 ON SITE BILLING	—	—	—	—	—	—	—	—
391.4 CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—	—	—
392 TRANSPORTATION EQUIPMENT	9,889,082	2,349,557	(1,541,208)	—	251,821	—	—	10,949,252
393 STORES EQUIPMENT	119,406	—	—	—	—	—	—	119,406
394 TOOLS - SHOP & GARAGE EQUIPUI	4,205,571	789,738	—	—	11,262	—	—	5,006,571
395 LABORATORY EQUIPMENT	68,293	(2)	(68,016)	—	—	—	—	275
396 POWER OPERATED EQUIPMENT	2,807,938	245,867	(549,609)	—	136,469	—	—	2,640,665
397 GEN PLANT-COMMUNICATION EQU	40,199	6,826	—	—	—	—	—	47,025
397.1 MOBILE	410,859	6,543	(475,621)	—	—	—	—	(58,219)
397.2 OTHER THAN MOBILE & TELEMET	1,690,854	(2,912)	(1,680,896)	—	—	—	—	7,046
397.3 TELEMETERING - OTHER	2,998,047	44,035	(2,807,778)	—	—	—	—	234,305
397.4 TELEMETERING - MICROWAVE	976,258	50,458	(497,290)	—	—	—	—	529,426
397.5 TELEPHONE EQUIPMENT	331,995	72,039	—	—	—	—	—	404,034
398 GEN PLANT-MISCELLANEOUS EQU	—	—	—	—	—	—	—	—
398.1 PRINT SHOP	83,249	(82)	(78,890)	—	—	—	—	4,277
398.2 KITCHEN EQUIPMENT	4,137	634	—	—	—	—	—	4,771
398.3 JANITORIAL EQUIPMENT	14,873	—	—	—	—	—	—	14,873
398.4 INSTALLED IN LEASED BUILDINGS	10,120	—	—	—	—	—	—	10,120
398.5 OTHER MISCELLANEOUS EQUIPMENT	66,739	—	—	—	—	—	—	66,739
General Plant Subtotal*	63,488,973	11,446,324	(17,820,216)	—	399,552	—	—	57,514,633
Utility Property Grand Total*	1,331,380,797	86,279,071	(25,674,225)	(4,158,713)	476,948	—	—	1,388,303,877

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
NON UTILITY								
Intangible Plant								
303.1	COMPUTER SOFTWARE	52,333	7,713	—	—	—	—	60,047
303.2	CUSTOMER INFORMATION SYSTEM	46,503	3,564	—	—	—	—	50,067
Non Utility Intangible Plant Subtotal*		98,837	11,277	—	—	—	—	110,114
Natural Gas Underground Storage								
352	WELLS	3,949,872	334,574	—	—	—	—	4,284,446
352.1	STORAGE LEASEHOLD & RIGHTS	221	19	—	—	—	—	240
352.2	RESERVOIRS	876,487	68,143	—	—	—	—	944,631
353	LINES	388,292	37,749	—	—	—	—	426,042
354	COMPRESSOR STATION EQUIPMENT	4,462,958	363,075	—	—	—	—	4,826,034
355	MEASURING / REGULATING EQUIPM	2,111,935	201,768	—	—	—	—	2,313,703
357	OTHER EQUIPMENT	11,598	1,431	—	—	—	—	13,029
Non Utility Natural Gas Underground Storage Subtotal*		11,801,365	1,006,760	—	—	—	—	12,808,125
Transmission Plant								
368	TRANSMISSION COMPRESSOR	2,325,830	226,554	—	—	—	—	2,552,384
Non Utility Transmission Plant Subtotal*		2,325,830	226,554	—	—	—	—	2,552,384
Distribution Plant								
376.12	MAINS 4" & >	235,735	21,112	—	—	—	—	256,847
Non Utility Distribution Plant Subtotal*		235,735	21,112	—	—	—	—	256,847
General Plant								
389	LAND	—	—	—	—	—	—	—
390	STRUCTURES & IMPROVEMENTS	34,322	4,534	—	—	—	—	38,856
Non Utility General Plant Subtotal*		34,322	4,534	—	—	—	—	38,856
Non Utility Other								
121.1	NON-UTIL PROP-DOCK	1,947,067	—	—	—	—	—	1,947,067
121.2	NON-UTIL PROP-LAND	—	—	—	—	—	—	—
121.3	NON-UTIL PROP-OIL ST	2,237,730	19,713	—	—	—	—	2,257,443
121.7	NON-UTIL PROP-APPL CENTER	38,557	4,383	—	—	—	—	42,939
121.8	NON-UTIL PROP-STORAGE	(1)	—	—	—	—	—	(1)
Non Utility Other*		4,223,352	24,096	—	—	—	—	4,247,448
Non Utility Property Grand Total*		18,719,439	1,294,333	—	—	—	—	20,013,772

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
TOTAL SUMMARY ALL UTILITY DEPRECIATION RESERVES		12/31/2018						
UTILITY								
108002	(9,526,867)							
108003	36,679							
108004	548,716							
108009	(206,898)							
108010	(45,119,325)							
108011	1,050,513,661							
108012	14,366,852							
108013	(3,461,707)							
108014	(824,851)							
108015	2,924,227							
108100	—							
108102	379,053,389							
108666	—							
SUBTOTAL*								<u>1,388,303,877</u>
ADD:								
108001 REMOVAL WORK IN PROCESS								(34,857,379)
TOTAL UTILITY DEPRECIATION*								<u>1,353,446,497</u>
TOTAL SUMMARY ALL NON-UTILITY RESERVES DEPRECIATION								
NON UTILITY								
122002	(100,635)							
122026	1,034							
122027	4,395,349							
122028	14,838,808							
122029	(531,316)							
122100	—							
122102	1,410,532							
TOTAL NON UTILITY DEPRECIATION*								<u>20,013,772</u>

* May not foot due to rounding

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS STORED (ACCOUNTS 117.1, 117.2, 117.3, 117.4, 164.1, 164.2, AND 164.3)

1. If during the year adjustments were made to the stored gas inventory reported in columns (d), (f), (g) and (h) (such as to correct cumulative inaccuracies of gas measurements), explain in a footnote the reason for the adjustments, the Dth and dollar amount of adjustment, and account charged or credited.
2. Report in column (e) all encroachments during the year upon the volumes designated as base gas, column (b), and system balancing gas, column (c), and gas property recordable in the plant accounts.
3. State in a footnote the basis of segregation of inventory between current and noncurrent portions. Also, state in a footnote the method used to report storage (i.e., fixed asset method or inventory method).

Line	Description	Base Gas (Account 117.1 - 117.8)	System Balancing (Account)	Non Current (Account)	Account	Current Underground (Account 164.21 - 164.23)	LNG (Account 164.21 - 164.23)	LNG (Account 164.35, 164.36)	Total
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Balance at Beginning of Year	\$ 18,488,587	—	—	—	\$ 32,907,852	\$ 3,741,745	—	\$ 55,138,184
2	Gas Delivered to Storage	\$ 25,000	—	—	—	\$ 22,305,380	\$ 1,666,806	—	\$ 23,997,186
3	Gas Withdrawn from Storage	\$ 19,398	—	—	—	\$ 29,048,705	\$ 1,707,955	—	\$ 30,776,058
4	Other Debits and Credits	—	—	—	—	\$ —	—	—	\$ —
5	Balance at End of Year	\$ 18,494,189	\$ —	\$ —	\$ —	\$ 26,164,527	\$ 3,700,596	\$ —	\$ 48,359,312
6	Dekatherms	7,999,385	—	—	—	11,351,085	1,265,711	—	\$ 20,616,181
7	Amount Per Dekatherm	\$ 2.31	\$ —	\$ —	\$ —	\$ 2.31	\$ 2.92	\$ —	\$ 2.35

Footnotes:

1. Independent engineering studies are the basis for separation between noncurrent and current inventory.
2. See Notes to Consolidated Financial Statements for method used to report inventories of gas in storage (page 122-A).

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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INVESTMENTS (Accounts 123, 124, 136)

1. Report below investments in Accounts 123, Investments in Associated Companies, 124, Other Investments, and 136, Temporary Cash Investments.

2. Provide a subheading for each account and list thereunder the information called for:

(a) Investment in Securities - List and describe each security owned, giving name of issuer, date acquired and date of maturity. For bonds, also give principal amount, date of issue, maturity, and interest rate. For capital stock (including capital stock of respondent reacquired under a definite plan for resale pursuant to authorization by the Board of Directors, and included in Account 124, Other Investments, state number of shares, class, and series of stock. Minor investments may be grouped by classes. Investments included in Account 136, Temporary Cash Investments, also may be grouped by classes.

(b) Investment Advances - Report separately for each person or company the amounts of loans or investment advances which are properly includable in Account 123. Include advances subject to current repayment in account 145 and 146. With respect to each advance, show whether the advance is a note or open account.

Line No.	Description of Investment (a)	*	Book Cost at Beginning of Year (If book cost is different from cost to respondent, give cost to respondent in a footnote and explain difference.) (c)	Purchases or Additions During the Year (d)
		(b)		
1	Account 123 Investments in Associated Companies		None	None
2	Account 124 Other Investments			
3	Investment in Life Insurance ⁽¹⁾		50,791,556	1,369,062
4	Investment in Vancouver Land ⁽²⁾		1,862,179	—
5	Total Account 124 Other Investments		52,653,735	1,369,062
6	Account 136 Temporary Cash Investments			
7	Marketable Securities		—	116,255,109
8	Oregon Low Income Gas Assistance (OLGA) Investment Account		1,111,705	4,075,153
9	Oregon Low Income Energy Efficiency (OLIEE) Investment Account		1,254,822	5,059,798
10	Smart Energy Environmental Program Investment Account		207,605	2,779,763
11	Total Account 136 Temporary Cash Investments		2,574,132	128,169,823
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1) Purchases and additions represent the change in cash surrender value not additional purchases of life insurance policies.

2) Investment in Vancouver Land was transferred from investments to property held-for-sale. These assets have not been disposed of or sold as of 12/31/2018.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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INVESTMENTS (Accounts 123, 124, 136) (continued)

List each note giving date of issuance, maturity date, and specifying whether note is a renewal. Designate any advances due from officers, directors, stockholders, or employees.

3. Designate with an asterisk in column (b) any securities, notes or accounts that were pledged, and in a footnote state the name of pledges and purpose of the pledge.

4. If Commission approval was required for any advance made or security acquired, designate such fact in a footnote and cite Commission, date of authorization, and case or docket number.

5. Report in column (h) interest and dividend revenues from investments including such revenues from securities disposed of during the year.

6. In column (i) report for each investment disposed of during the year the gain or loss represented by the difference between cost of the investment (or the other amount at which carried in the books of account if different from cost) and the selling price thereof, not including any dividend or interest adjustment includible in column (h).

Sales or Other Dispositions During Year (e)	Principal Amount or No. of Shares at End of Year (f)	Book Cost at End of Year of Year (If book cost is different from cost to respondent, give cost to respondent in a footnote and explain difference.) (g)	Revenues for Year (h)	Gain or Loss from Investment Disposed of (i)	Line No.
					1
					2
2,238,710	49,921,908	49,921,908	—	313,285	3
1,862,179	—	—	—	—	4
4,100,889	49,921,908	49,921,908	—	—	5
				—	6
116,255,109	—	—	55,109	—	7
4,282,953	903,905	903,905	—	—	8
5,165,867	1,148,753	1,148,753	—	—	9
2,766,644	220,724	220,724	—	—	10
128,470,573	2,273,382	2,273,382	55,109	—	11
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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INVESTMENT IN SUBSIDIARY COMPANIES (Account 123.1)

- Report below investments in Accounts 123.1, Investments in Subsidiary Companies.
- Provide a subheading for each company and list thereunder the information called for below. Sub-total by company and give a total in columns (e), (f), (g) and (h).
 - Investment in Securities - List and describe each security owned. For bonds give also principal amount, date of issue, maturity, and interest rate.
 - Investment Advances - Report separately the amounts of loans or investment advances which are subject to repayment, but which are not subject to current settlement. With respect to each advance show whether the advance is a note or open account. List each note giving date of issuance, maturity date, and specifying whether note is a renewal.
- Report separately the equity in undistributed subsidiary earnings since acquisition. The total in column (e) should equal the amount entered for Account 418.1.

Line No.	Description of Investment (a)	Date Acquired (b)	Date of Maturity (c)	Amount of Investment at Beginning of Year (d)
1	NNG Financial Corporation (Financing and Investments) ⁽¹⁾	6/28/1990		272,010
2	Northwest Natural Energy LLC - (Holding Company) ⁽¹⁾	5/26/2009		33,733,207
3	Northwest Biogas, LLC - (Biodigestor Company) ⁽¹⁾	3/23/2009		40,553
4	Northwest Energy Corporation - (Holding Company) ⁽²⁾	11/1/2001		118,133,662
5	NW Natural Water Company (Holding Company) ⁽¹⁾	12/18/2017		—
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30	TOTAL Cost of Account 123.1		TOTAL	152,179,432

1) On October 1, 2018, as a result of NW Natural's reorganization into a holding company structure, NW Natural transferred to NW Holdings all outstanding equity interests of each of its subsidiaries other than Northwest Energy Corporation and that entity's subsidiary, NWN Gas Reserves LLC, which comprise part of the regulated gas utility business of NW Natural. Refer to Page 103 for additional details related to reorganization and the transfer of subsidiaries.

2) Earnings for Year for NWN Gas Reserves, a wholly-owned subsidiary of Northwest Energy Corporation, is included in Cost of Gas within Operating Expenses and is therefore excluded from Equity in Subsidiary Earnings for Year.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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INVESTMENT IN SUBSIDIARY COMPANIES (Account 123.1) (Continued)

4. Designate in a footnote any securities, notes, or accounts that were pledged and purpose of pledge.
5. If commission approval was required for any advance made or security acquired, designate such fact in a footnote and give name of Commission, date of authorization, and case or docket number.
6. Report column (f) interest and dividend revenues from investments, including such revenues from securities disposed of during the year.
7. In column (h) report for each investment disposed of during the year, the gain or loss represented by the difference between cost of the investment (or the other amount at which carried in the books of account if different from cost) and the selling price thereof, not including interest adjustment includible in column (f).
8. Report on Line 40, column (a) the total cost of Account 123.1

Equity in Subsidiary Earnings for Year (e)	Additional Investment for Year (f)	Amount of Investment at End of Year (g)	Gain or Loss from Investment Disposed of (h)	Line No.
17,313	(289,323)	—	—	1
(1,750,151)	(31,983,056)	—	—	2
18,600	(59,153)	—	—	3
(8,976,514)	(3,575,000)	105,582,148	—	4
(8,899)	8,899	—	—	5
				6
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(10,699,651)	(35,897,633)	105,582,148	—	30

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Prepayments (acct 165), Extraordinary Property Losses (Acct 182.1), Unrecovered Plant and Regulatory Study Costs (Acct 182.2)

PREPAYMENTS (Account 165)

1. Report below the particulars (details) on each prepayment.

Line No.	Nature of Payment (a)	Balance at End of Year (in dollars) (b)
1	Prepaid Taxes	16,860,657
2	Prepaid Rents	470,666
3	Prepaid Insurance	3,217,560
4	Miscellaneous Prepayments	7,171,114
5		
6		
7	TOTAL	27,719,997

EXTRAORDINARY PROPERTY LOSSES (Account 182.1)

Line No.	Description of Extraordinary Loss [Include the date of loss, the date of Commission authorization to use Account 182.1 and period of amortization (mo, yr, to mo, yr)] Add rows as necessary to report all data. (a)	Balance at Beginning of Year (b)	Total amount of loss (c)	Losses Recognized During Year (d)	Written off During Year Account charged (e)	Written off During Year Amount (f)	Balance at End of Year (g)
8	None	—	—	—	—	—	—
9							
10							
11							
12							
13							
14							
15							
16	Total						—

UNRECOVERED PLANT AND REGULATORY STUDY COSTS (Account 182.2)

Line No.	Description of Unrecovered Plant and Regulatory Study Costs [Include in the description of costs, the date of Commission authorization to use Account 182.2 and period of amortization (mo, yr, to mo, yr)] Add rows as necessary to report all data. Number rows in sequence beginning with the next row number after the last row number used for extraordinary property losses. (a)	Balance at Beginning of Year (b)	Total amount of loss (c)	Losses Recognized During Year (d)	Written off During Year Account charged (e)	Written off During Year Amount (f)	Balance at End of Year (g)
17	None	—	—	—	—	—	—
18							
19							
20							
21							
22							
23							
24							
25	Total						—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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OTHER REGULATORY ASSETS (ACCOUNT 182.3)

1. Report below the details called for concerning other regulatory assets which are created through the ratemaking actions of regulatory agencies (and not includable in other accounts).
2. For regulatory assets being amortized, show period of amortization in column (a).
3. Minor items (5% of the Balance at End of Year for account 182.3 or amounts less than \$250,000, whichever is less) may be grouped
4. Report separately any "Deferred Regulatory Commission Expenses" that are also reported on pages 350-351, Regulatory Commission Expenses.

Line No.	Description and Purpose of Other Regulatory Assets (a)	Balance at Beginning of Year (b)	Debit (Credit) (c)	Written off During Period Account charged (d)	Written off During Period Amount Recovered (e)	Written off During Period Amount Deemed Unrecoverable (f)	Balance at End of Year (g)
1	Deferred Income Taxes - Utility Plant	21,274,615	—	283	2,217,656	—	19,056,959
2	AFUDC Equity Deferred Taxes	933,909	1,427,326	283	16,022	—	2,345,213
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29							
30	Total	22,208,524	1,427,326		2,233,678	—	21,402,172

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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MISCELLANEOUS DEFERRED DEBITS (Account 186)

- Report below the details called for concerning miscellaneous deferred debits.
- For any deferred debit being amortized, show period of amortization in column (a).
- Minor items (less than \$250,000) may be grouped by classes.

Line No.	Description of Miscellaneous Deferred Debits (a)	Balance at Beginning of Year (b)	Debits (c)	Credits Account Charged (d)	Credits Amount (e)	Balance at End of Year (f)
1	Pension and Other Retirement Benefits	179,824,220	14,304,095		19,134,982	174,993,333
2	Pension Deferral	64,901,654	15,937,057		546	80,838,165
3	Environmental	127,367,634	80,441,278		79,061,607	128,747,305
4	Regulatory Receivable - Environmental	(49,041,616)	8,445,680		6,401,708	(46,997,644)
5	Deferred Derivative Activity	23,361,000	62,779,000		70,734,000	15,406,000
6	Leasehold Improvements Amortized Over Remaining Life	1,795,060	12,089,098		6,777,006	7,107,152
7	Unbilled Revenue - Amortizations	5,758	1,184,864		1,062,245	128,377
8	OR - Decoupling	13,934,537	28,566,870		33,062,081	9,439,326
9	OR - Deferred Industrial DSM	9,078,419	7,205,201		10,499,961	5,783,659
10	OR - Warm	(3,927,755)	6,929,596		1,808,516	1,193,325
11	OR - Pension Withdrawal	6,403,565	10,788		306,446	6,107,907
12	WA - Pension Withdrawal	739,284	1,246		35,379	705,151
13	WA - Energy Efficiency	3,737,436	5,378,499		4,426,040	4,689,895
14	WA - Low Income	336,522	889,716		781,264	444,974
15	Other	616,445	5,488,758		5,303,360	801,843
16						
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30	Total	379,132,163	249,651,746		239,395,141	389,388,768

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Accumulated Deferred Income Taxes (Account 190)

1. Report the information called for below concerning the respondent's accounting for deferred income taxes.
2. At Other (specify), include deferrals relating to other income and deductions.
3. Provide in a footnote a summary of the type and amount of deferred income taxes reported in the beginning-of-year and end-of-year balances for deferred income taxes that the respondent estimates could be included in the development of jurisdictional recourse rates.

Line No.	Account Subdivisions (a)	Balance at Beginning of Year (b)	Changes During Year Amounts Debited to Account 410.1 (c)	Changes During Year Amounts Credited to Account 411.1 (d)
1	Account 190			
2	Electric			
3	Gas	—	—	—
4				
5	Total (Total of lines 2 thru 4)	—	—	—
6				
7	TOTAL Account 190 (Total of lines 5 thru 6)	—	—	—
8	Classification of TOTAL			
9	Federal Income Tax	—	—	—
10	State Income Tax	—	—	—
11	Local Income Tax	—	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Accumulated Deferred Income Taxes (Account 190) (Continued)

Changes During Year Amounts Debited to Account 410.2 (e)	Changes During Year Amounts Credited to Account 411.2 (f)	Adjustments Debits Account No. (g)	Adjustments Debits Amount (h)	Adjustments Credits Account No. (i)	Adjustments Credits Amount (j)	Balance at End of Year (k)	Line No.
							1
							2
—	—	—	—	—	—	—	3
							4
—	—	—	—	—	—	—	5
							6
—	—	—	—	—	—	—	7
							8
—	—	—	—	—	—	—	9
—	—	—	—	—	—	—	10
—	—	—	—	—	—	—	11

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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CAPITAL STOCK (Account 201 and 204)

1. Report below the detail called for concerning common and preferred stock at end of year, distinguishing separate series of any general class. Show separate totals for common and preferred stock.
2. Entries in column (b) should represent the number of shares authorized by the articles of incorporation as amended to end of year.
3. Give details concerning shares of any class and series of stock authorized to be issued by a regulatory commission which have not yet been issued.

Line No.	Class and Series of Stock and Name of Stock Exchange (a)	Number of Shares Authorized by Charter (b)	Par of Stated Value per Share (c)	Call Price at End of Year (d)
1	Common Stock	100,000,000	N/A	
2	Preferred Stock (unissued and undesignated)	3,500,000	N/A	
3	Limited Voting Junior Preferred Stock ⁽¹⁾	1	1	
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(1) NW Natural has authorized, issued and outstanding, one share of Limited Voting Preferred Stock (Golden Share), \$1 par value, held by GSS Holdings (NWN), Inc. As specified in OPUC Order 17-526, NW Natural is not entitled to file a voluntary petition for bankruptcy unless approved by the holder of the Golden Share, which must be an independent party. Except as provided in NW Natural's Amended and Restated Articles of Incorporation or as otherwise provided by law, the holder of the Junior Preferred Stock has no voting rights for any other purpose. The Golden Share is not entitled to receive or participate in dividends. The Golden Share is entitled in preference to the Common Stock, upon dissolution, liquidation or winding up of the Company, to payment of up to \$100 out of the net assets of the Company, and may be redeemed by the Company, at its election expressed by resolution of the Board of Directors and subject to the consent of the Commission, for \$100.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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CAPITAL STOCK (Accounts 201 and 204) (Continued)

4. The identification of each class of preferred stock should show the dividend rate and whether the dividends are cumulative or noncumulative.
5. State in a footnote if any capital stock which has been nominally issued is nominally outstanding at end of year.
6. Give particulars (details) in column (a) of any nominally issued capital stock, reacquired stock, or stock in sinking and other funds which is pledged, stating name of pledgee and purpose of pledge.

Outstanding per Bal. Sheet (total amount outstanding without reduction for amts held by respondent) Shares (e)	Outstanding Per Bal. Sheet Amount (f)	Held by Respondent as Reacquired Stock (Acct 217) Shares (g)	Held by Respondent as Reacquired Stock (Acct 217) Cost (h)	Held by Respondent in Sinking and Other Funds Shares (i)	Held by Respondent in Sinking and Other Funds Amount (j)	Line No.
100	228,868,409					1
—	—					2
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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CAPITAL STOCK SUBSCRIBED, CAPITAL STOCK LIABILITY FOR CONVERSION, PREMIUM ON CAPITAL STOCK, AND INSTALLMENTS RECEIVED ON CAPITAL STOCK (Accounts 202, 203, 205, 206, 207 and 212)

- Show for each of the above accounts the amounts applying to each class and series of capital stock.
- For Account 202, Common Stock Subscribed, and Account 205, Preferred Stock Subscribed, show the subscription price and the balance due on each class at the end of year.
- Describe in a footnote the agreement and transactions under which a conversion liability existed under Account 203, Common Stock Liability for Conversion, or Account 206, Preferred Stock Liability for Conversion, at the end of the year.
- For Premium on Account 207, Capital Stock, designate with an asterisk any amounts representing the excess of consideration received over stated values of stocks without par value.

Line No.	Name of Account and Description of Item (a)	*	Number of Shares (c)	Amount (d)
		(b)		
1	Account 202 - Common Stock Subscribed			None
2	Account 205 - Preferred Stock Subscribed			None
3	Account 203 and 206 - Capital Stock Liability for Conversion			None
4	Account 207 - Premium on Capital Stock:			None
5	Account 212 - Installments Received on Capital Stock			51,579
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30	Total			51,579

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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OTHER PAID IN CAPITAL (Accounts 208 - 211)

1. Report below the balance at the end of the year and the information specified below for the respective other paid-in capital accounts. Provide a subheading for each account and show a total for the account, as well as total of all accounts for reconciliation with balance sheet, page 112. Explain changes made in any account during the year and give the accounting entries effecting such change.

- a) Donations Received from Stockholders (Account 208) - State amount and give briefly explain the origin and purpose of each donation.
- (b) Reduction in Par or Stated Value of Capital Stock (Account 209) - State amount and give briefly explain the capital changes that gave rise to amounts reported under this caption including identification with the class and series of stock to which related.
- (c) Gain on Resale or Cancellation of Reacquired Capital Stock (Account 210) - Report balance at beginning of year, credits, debits, and balance at end of year with a designation of the nature of each credit and debit identified by the class and series of stock to which related.
- (d) Miscellaneous Paid-In Capital (Account 211) - Classify amounts included in this account according to captions that, together with brief explanations, disclose the general nature of the transactions which gave rise to the reported amounts.

Line No.	Item (a)	Amount (b)
1	Account 208 - Donations Received from Stockholders	NONE
2	Account 209 - Reduction in Par or Stated Value of Capital Stock	NONE
3	Account 210 - Gain on Resale or Cancellation of Reacquired Capital Stock	
4	Balance At Beginning of Year	1,649,864
5	Credit:	—
6	Debit:	—
7	Balance at End of Year	1,649,864
8	Account 211 - Miscellaneous Paid-In Capital	NONE
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29		
30	Total	1,649,864

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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DISCOUNT ON CAPITAL STOCK (ACCOUNT 213)

1. Report the balance at end of year of discount on capital stock for each class and series of capital stock. Use as many rows as necessary to report all data.

2. If any change occurred during the year in the balance with respect to any class or series of stock, attach a statement giving details of the change. State the reason for any charge-off during the year and specify the account charged.

Line No.	Class and Series of Stock (a)	Balance at End of Year (b)
1	N/A	—
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
TOTAL		—

CAPITAL STOCK EXPENSE (ACCOUNT 214)

1. Report the balance at end of year of capital stock expenses for each class and series of capital stock. Use as many rows as necessary to report all data. Number the rows in sequence starting from the last row number used for Discount on Capital Stock above.

2. If any change occurred during the year in the balance with respect to any class or series of stock, attach a statement giving details of the change. State the reason for any charge-off of capital stock expense and specify the account charged.

Line No.	Class and Series of Stock (a)	Balance at End of Year (b)
15	Capital Stock Expense	4,118,163
16		
17		
18		
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20		
21		
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23		
24		
25		
26		
27		
TOTAL		4,118,163

Name of Respondent	This Report is:	Date of Report	Year of Report
Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

SECURITIES ISSUED OR ASSUMED AND SECURITIES REFUNDED OR RETIRED DURING THE YEAR

1. Furnish a supplemental statement briefly describing security financing and refinancing transactions during the year and the accounting for the securities, discounts, premiums, expenses, and related gains or losses.
2. Provide details showing the full accounting for the total principal amounts, par value, or stated value of each class and series of security issued, assumed, retired, or refunded and the accounting for premiums, discounts, expenses, and gains or losses relating to the securities. Set forth the facts of the accounting clearly with regard to redemption premiums, unamortized discounts, expenses, and gain or losses relating to securities retired or refunded, including the accounting for such amounts carried in the respondent's accounts at the date of the refunding or refinancing transactions with respect to securities previously refunded or retired.
3. Include in the identification of each class and series of security, as appropriate, the interest or dividend rate, nominal date of issuance, maturity date, aggregate principal amount, par value or stated value, and number of shares. Give also the issuance of redemption price and name of the principal underwriting firm through which the security transactions were consummated.
4. Where the accounting for amounts relating to securities refunded or retired is other than that specified in General Instruction 17 of the Uniform System of Accounts, cite the Commission authorization for the different accounting and state the accounting method.
5. For securities assumed, give the name of the company for which the liability on the securities was assumed as well as details of the transactions whereby the respondent undertook to pay obligations of another company. If any unamortized discount, premiums, expenses, and gains or losses were taken over onto the respondent's books, furnish details of these amounts with amounts relating to refunded securities clearly earmarked.

Class of Security	Underwriter of Payee	Date	Stated or Par Value per Share	Number of Shares	Principal Amount or Par Value
<u>Debt Securities Issued</u>					
Secured Medium Term Notes		9/10/2018			50,000,000
Total Debt Issued					<u>50,000,000</u>
<u>Common Stock</u>					
Common Stock issued:*					
Stock option plan	Issued by Company	Various	NA	31,300	1,561,367
Long Term Incentive Plan	Issued by Company	3/1/2018	NA	10,105	427,914
Restricted Stock Units	Issued by Company	Various	NA	18,743	912,475
Dividend Reinvestment Plan/ Officer Compensation Plan	Issued by Company	Various	NA	48,337	2,883,253
Total Common Stock Issued					<u>108,485</u>
					<u>5,785,009</u>

* All Common Stock issued occurred prior to reorganization described on page 103.

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LONG-TERM DEBT (Account 221, 222, 223, and 224)

1. Report by Balance Sheet Account the details concerning long-term debt included in Account 221, Bonds, 222, Reacquired Bonds, 223, Advances from Associated Companies, and 224, Other Long-Term Debt.
2. For bonds assumed by the respondent, include in column (a) the name of the issuing company as well as a description of the bonds.
3. For advances from Associated Companies, report separately advances on notes and advances on open accounts. Designate demand notes as such. Include in column (a) names of associated companies from which advances were received.
4. For receivers' certificates, show in column (a) the name of the court and date of court order under which such certificates were issued.

Line No.	Class and Series of Obligation and Name of Stock Exchange (a)	Nominal Date of Issue (b)	Date of Maturity (c)	Outstanding (Total amount outstanding without reduction for amounts held by respondent) (d)
1	Account 221			
2	First Mortgage Bonds			
3				
4	6.600% Series B	3/17/1998	3/16/2018	—
5	1.545% Series B	12/5/2019	12/5/2018	—
6	8.310% Series B	9/21/1994	9/21/2019	10,000,000
7	7.630% Series B	12/9/1999	12/9/2019	20,000,000
8	5.370% Series B	3/25/2009	2/1/2020	75,000,000
9	9.050% Series A	8/13/1991	8/13/2021	10,000,000
10	3.176% Series B	9/12/2011	9/15/2021	50,000,000
11	3.542% Series B	8/19/2013	8/19/2023	50,000,000
12	5.620% Series B	11/21/2003	11/21/2023	40,000,000
13	7.720% Series B	9/6/2000	9/1/2025	20,000,000
14	6.520% Series B	12/1/1995	12/1/2025	10,000,000
15	7.050% Series B	10/15/1996	10/15/2026	20,000,000
16	3.211% Series B	12/5/2016	12/5/2026	35,000,000
17	7.000% Series B	5/20/1997	5/21/2027	20,000,000
18	2.822% Series B	9/13/2017	9/13/2027	25,000,000
19	6.650% Series B	11/10/1997	11/10/2027	19,700,000
20	6.650% Series B	6/1/1998	6/1/2028	10,000,000
21	7.740% Series B	8/29/2000	8/29/2030	20,000,000
22	7.850% Series B	9/6/2000	9/1/2030	10,000,000
23	5.820% Series B	9/24/2002	9/24/2032	30,000,000
24	5.660% Series B	2/25/2003	2/25/2033	40,000,000
25	5.250% Series B	6/21/2005	6/21/2035	10,000,000
26	4.000% Series B	10/30/2012	10/31/2042	50,000,000
27	4.136% Series B	12/5/2016	12/5/2046	40,000,000
28	3.685% Series B	9/13/2017	9/13/2047	75,000,000
29	4.110% Series B	9/10/2018	9/10/2048	50,000,000
30		Total First Mortgage Bonds		739,700,000
31	Account 239			
32	Less: Debt due within one year			(30,000,000)
33	Accounts 222 and 223			
34	None			—
35	Account 224			
36	None			—
37				
38				
39				
40	TOTAL			709,700,000

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LONG-TERM DEBT (Accounts 221, 222, 223 and 224) (Continued)

5. In a supplemental statement, give explanatory details for Accounts 223 and 224 of net changes during the year. With respect to long-term advances, show for each company: (a) principal advanced during year, (b) interest added to principal amount, and (c) principal repaid during year. Give Commission authorization numbers and dates.
6. If the respondent has pledged any of its long-term debt securities, give particulars (details) in a footnote, including name of the pledgee and purpose of the pledge.
7. If the respondent has any long-term securities which have been nominally issued and are nominally outstanding at end of year, describe such securities in a footnote.
8. If interest expense was incurred during the year on any obligations retired or reacquired before end of year, include such interest expense in column (f). Explain in a footnote any difference between the total of column (f) and the total of Account 427, Interest on Long-Term Debt and Account 430, Interest on Debt to Associated Companies.
9. Give details concerning any long-term debt authorized by a regulatory commission but not yet issued.

Interest for Year Rate in (%) (e)	Interest for Year Amount (f)	Held by Respondent Reacquired Bonds (Acct. 222) (g)	Held by Respondent Sinking and Other Funds (h)	Redemption Price per \$100 at End of Year (i)	Line No.
					1
					2
					3
6.600%	302,500			N/A	4
1.545%	1,074,647			N/A	5
8.310%	831,000			N/A	6
7.630%	1,526,000			N/A	7
5.370%	4,027,500			N/A	8
9.050%	905,000			N/A	9
3.176%	1,588,000			N/A	10
3.542%	1,771,000			N/A	11
5.620%	2,248,000			N/A	12
7.720%	1,544,000			N/A	13
6.520%	652,000			N/A	14
7.050%	1,410,000			N/A	15
3.211%	1,123,850			N/A	16
7.000%	1,400,000			N/A	17
2.822%	705,500			N/A	18
6.650%	1,310,050			N/A	19
6.650%	665,000			N/A	20
7.740%	1,548,000			N/A	21
7.850%	785,000			N/A	22
5.820%	1,746,000			N/A	23
5.660%	2,264,000			N/A	24
5.250%	525,000			N/A	25
4.000%	2,000,000			N/A	26
4.136%	1,654,400			N/A	27
3.685%	2,763,750			N/A	28
4.110%	627,917			N/A	29
	36,998,114				30
					31
	—				32
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	—				36
					37
					38
					39
	36,998,114				40

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UNAMORTIZED DEBT EXPENSE, PREMIUM AND DISCOUNT ON LONG-TERM DEBT (Accounts 181, 225, 226)

- Report under separate subheadings for Unamortized Debt Expense, Unamortized Premium on Long-Term Debt and Unamortized Discount on Long-Term Debt, details of expense, premium or discount applicable to each class and series of long-term debt.
- Show premium amounts by enclosing figures in parentheses.
- In column (b) show the principal amount of bonds or other long-term debt originally issued.
- In column (c) show the expense, premium or discount with respect to the amount of bonds or other long-term debt originally issued.

Line No.	Designation of Long-Term Debt (a)	Principal Amount of Debt Issued (b)	Total Expense Premium or Discount (c)	Amortization Period	
				Date From (d)	Date to (e)
1	Account 181				
2	First Mortgage Bonds				
3	6.600% ⁽²⁾	22,000,000	1,344,884	3/17/1998	3/16/2018
4	1.545%	75,000,000	633,185	12/5/2019	12/5/2018
5	8.310% ⁽¹⁾	10,000,000	1,111,757	9/21/1994	9/21/2019
6	7.630%	20,000,000	195,421	12/9/1999	12/9/2019
7	5.370% ⁽⁷⁾	75,000,000	10,862,808	3/25/2009	2/1/2020
8	9.050%	10,000,000	115,333	8/13/1991	8/13/2021
9	3.176%	50,000,000	605,155	9/12/2011	9/15/2021
10	3.542%	50,000,000	638,179	8/19/2013	8/19/2023
11	5.620% ⁽⁶⁾	40,000,000	3,325,438	11/21/2003	11/21/2023
12	7.720% ⁽⁴⁾	20,000,000	1,286,261	9/6/2000	9/1/2025
13	6.520%	10,000,000	90,146	12/1/1995	12/1/2025
14	7.050%	20,000,000	175,940	10/15/1996	10/15/2026
15	3.211%	35,000,000	506,753	12/5/2016	12/5/2026
16	7.000%	20,000,000	153,906	5/20/1997	12/5/2026
17	2.822%	25,000,000	309,885	9/13/2017	9/13/2027
18	6.650% ⁽⁸⁾	19,700,000	162,800	11/10/1997	11/10/2027
19	6.650%	10,000,000	98,300	6/1/1998	6/1/2028
20	7.740% ⁽³⁾	20,000,000	1,504,914	8/29/2000	8/29/2030
21	7.850% ⁽⁵⁾	10,000,000	753,107	9/6/2000	9/1/2030
22	5.820%	30,000,000	390,382	9/24/2002	9/24/2032
23	5.660%	40,000,000	356,663	2/25/2003	2/25/2033
24	5.250%	10,000,000	97,974	6/21/2005	6/21/2035
25	4.000%	50,000,000	535,479	10/30/2012	10/31/2042
26	4.136%	40,000,000	607,712	12/5/2016	12/5/2046
27	3.685%	75,000,000	930,446	9/13/2017	9/13/2047
28	4.110%	50,000,000	299,695	9/10/2018	9/10/2048
29	Shelf Registration Expense	—	—	N/A	N/A
30	Line of Credit	—	—	N/A	N/A
31	Accounts 225 and 226				
32	None	—	—	N/A	N/A
33	TOTAL	836,700,000	27,092,523		

- Includes premium and unamortized cost on early redemption of 9.8% series bonds (\$1,044,111 allocated to the 8.31% series, and \$835,723 allocated to the 8.26% series).
- Includes \$910,800 premium and \$222,664 unamortized costs on early redemption of 9.125% series bonds allocated to the 6.60% series.
- Includes \$992,143 premium, \$178,966 unamortized costs on early redemption of 9.75% series bonds, and \$148,605 unamortized costs on early redemption of 15.375% series bonds allocated to the 7.74% series.
- Includes \$826,786 premium, \$149,139 unamortized costs on early redemption of 9.75% series bonds, and \$123,837 unamortized costs on early redemption of 15.375% series bonds allocated to the 7.72% series.
- Includes \$496,071 premium, \$89,483 unamortized costs on early redemption of 9.75% series bonds, and \$74,302 unamortized costs on early redemption of 15.375% series bonds allocated to the 7.85% series.
- Includes \$150,000 premium and \$405,971 unamortized costs on early redemption of 7.50% series bonds, \$413,600 premium and \$1,116,479 unamortized costs on early redemption of 7.52% series bonds and \$730,000 premium and \$136,800 unamortized costs on early redemption of 7.25% series bonds allocated to 5.62% series.
- Includes \$10,096,000 costs paid on interest rate hedge loss and \$298,058 unamortized costs on shelf registration, allocated to 5.37% series.
- In November 2009 one investor exercised its right under a one-time put option to redeem \$0.3 million of the \$20 million outstanding. This one-time put option has now expired, and the remaining \$19.7 million remaining principal outstanding is expected to be redeemed at maturity in November 2027.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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UNAMORTIZED DEBT EXPENSE, PREMIUM AND DISCOUNT ON LONG-TERM DEBT (Accounts 181, 225, 226) (Continued)

5. Furnish in a footnote details regarding the treatment of unamortized debt expense, premium or discount associated with issues redeemed during the year. Also, give in a footnote the date of the Commission's authorization of treatment other than as specified by the Uniform System of Accounts.

6. Identify separately undisposed amounts applicable to issues which were redeemed in prior years.

7. Explain any debits and credits other than amortization debited to Account 428, Amortization of Debt Discount and Expense, or credited to Account 429, Amortization of Premium on Debt - Credit.

Balance at Beginning of Year (f)	Debits during the Year (g)	Credits During the Year (h)	Balance at End of Year (i)	Line No.
				1
				2
2,193	—	2,193	—	3
294,671	—	294,671	—	4
4,650	—	2,700	1,950	5
18,719	—	9,712	9,007	6
2,199,370	—	1,019,800	1,179,570	7
13,760	—	3,824	9,936	8
221,887	—	60,244	161,643	9
359,516	—	63,808	295,708	10
110,192	—	18,656	91,536	11
57,224	—	7,464	49,760	12
23,750	—	3,000	20,750	13
51,589	—	5,868	45,721	14
452,585	—	50,664	401,921	15
48,364	—	5,140	43,224	16
298,750	—	28,645	270,105	17
53,336	—	5,420	47,916	18
34,125	—	3,276	30,849	19
77,614	—	6,156	71,458	20
39,368	—	3,108	36,260	21
192,045	—	13,024	179,021	22
180,362	—	11,896	168,466	23
56,848	—	3,260	53,588	24
443,126	—	17,844	425,282	25
586,062	—	20,246	565,816	26
921,187	—	29,372	891,815	27
—	313,198	3,331	309,867	28
71,711	144,291	—	216,002	29
359,105	1,123,808	200,600	1,282,313	30
				31
—	—	—	—	32
7,172,109	1,581,297	1,893,922	6,859,484	33

Total above	1,893,922
Less Shelf Registration Expense	—
Less LOC amortized to interest expense	(200,600)
Amortization Expense per FERC 428	<u>1,693,322</u>

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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UNAMORTIZED LOSS AND GAIN ON REACQUIRED DEBT (Accounts 189, 257)

- Report under separate subheadings for Unamortized Loss and Unamortized Gain on Reacquired Debt, details of gain and loss, including maturity date, on reacquisition applicable to each class and series of long-term debt. If gain or loss resulted from a refunding transaction, include also the maturity date of the new issue.
- In column (c) show the principal amount of bonds or other long-term debt reacquired.
- In column (d) show the net gain or net loss realized on each debt reacquisition as computed in accordance with General Instruction 17 of the Uniform System of Accounts.
- Show loss amounts by enclosing the figures in parentheses.
- Explain in a footnote any debits and credits other than amortization debited to Account 428.1, Amortization of Loss on Reacquired Debt or credited to Account 429.1, Amortization of Gain on Reacquired Debt-Credit.

Line No.	Designation of Long-Term Debt (a)	Date Reacquired (b)	Principal of Debt Reacquired (c)	Net Gain or Loss (d)	Balance at Beginning of Year (e)	Balance at End of Year (f)
1	Account 189					
2	First Mortgage Bonds					
3	9.8%	11/1/1993	24,938,000	(2,170,710)	73,080	31,320
4	9.13%	4/1/1998	18,000,000	(1,133,464)	10,084	—
5	9.75% ⁽¹⁾	9/29/2000	50,000,000	(3,079,332)	1,173,120	1,063,140
6	7.52% ⁽²⁾	7/1/2003	11,000,000	(1,530,079)	446,250	369,750
7	7.50% ⁽³⁾	7/1/2003	4,000,000	(555,971)	162,190	134,386
8	7.25%	8/18/2003	20,000,000	(866,800)	252,840	209,496
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30	TOTAL				2,117,564	1,808,092

(1) Includes \$2,732,588 loss on debt reacquired in 2000 and \$346,744 unamortized loss allocated from the 15.375% Guaranteed Notes.
(2) Includes \$489,200 loss on debt reacquired in 2003 and \$1,040,879 unamortized loss allocated from the 9.38% Bonds.
(3) Includes \$177,360 loss on debt reacquired in 2003 and \$378,611 unamortized loss allocated from the 9.38% Bonds.

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RECONCILIATION OF REPORTED NET INCOME WITH TAXABLE INCOME FOR FEDERAL INCOME TAXES

1. Report the reconciliation of reported net income for the year with taxable income used in computing federal income tax accruals
2. If the utility is a member of a group that files a consolidated federal tax return, reconcile reported net income with taxable net income as if a separate return were to be filed, indicating, however, intercompany amounts to be eliminated in such a consolidated return.

Line No.	Details (a)	Amount (b)
1	Net Income For The Year Per (Page 116)	67,869,020
2	Reconciling Items for the Year	
3		
4	Taxable Income Not Reported on Books	
5	Contributions In Aid Of Construction	4,482,515
6	TOTAL	4,482,515
7	Deductions Recorded On Books Not Deducted for Return	
8	Excess Of Tax Over Book Depreciation	5,571,300
9	Accrued Vacation	78,935
10	Bad Debt Reserve	19,737
11	Bond Redemption Loss Amortization	309,472
12	Pension - Deferred Directors Fees	194,533
13	Meals And Entertainment	703,614
14	Qualified Transportation Fringe Benefits	504,904
15	Employee Stock Purchase Plan	162,605
16	Capitalized Interest	2,090,561
17	Gas Reserves	10,649,397
18	Federal Tax Provision	15,312,937
19	State Tax Provision	5,305,455
20	TOTAL	40,903,450
21	Income Recorded on Books Not Included in Return	
22	SEC Regulatory Interest	(1,543,258)
23	Equity Component Of AFUDC Capitalized For Book	(3,920,214)
24	Regulatory Revenue & Cost Adjustments	(264,591)
25	TOTAL	(5,728,063)
26	Deductions on Return Not Charged Against Book Income	
27	Depletion	(823,728)
28	Stock Based Compensation	(1,060,953)
29	Pension Adjustments	(13,181,409)
30	Prepaid Insurance	(201,753)
31	Property Tax Adjustment - Accrual To Cash	(475,353)
32	Dividends Paid On Allocated Shares Held By An ESOP	(687,789)
33	Removal Costs	(10,060,081)
34	Deferred Compensation	(97,474)
35	Uniform Inventory Capitalization	(603,533)
36	Environmental	(2,043,972)
37	Miscellaneous	327,955
38	Other Non-Utility Earnings	(10,033,677)
39	TOTAL	(38,941,767)
40	Federal Tax Net Income	68,585,155
41	Show Computation of Tax:	
42	State Tax	(2,927,402)
43	Federal Tax Net Income, less state tax	65,657,753
44	Federal Tax @ 21%	13,788,128
45	Research and Development Credit	(91,680)
46	Fuel Tax Credit	(20,207)
47	Prior years' true-ups and misc adjustments	(7,163,372)
48	Total Federal Tax Expense	6,512,869

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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TAXES ACCRUED, PREPAID AND CHARGED DURING YEAR, DISTRIBUTION OF TAXES CHARGED
(Show utility dept where applicable and acct charged)

1. Give details of the combined prepaid and accrued tax accounts and show the total taxes charged to operations and other accounts during the year. Do not include gasoline and other sales taxes which have been charged to the accounts to which the taxed material was charged. If the actual or estimated amounts of such taxes are known, show the amounts in a footnote and designate whether estimated or actual amounts.
2. Include on this page, taxes paid during the year and charged direct to final accounts, (not charged to prepaid or accrued taxes). Enter the amounts in both columns (d) and (e). The balancing of this page is not affected by the inclusion of these taxes.
3. Include in column (d) taxes charged during the year, taxes charged to operations and other accounts through (a) accruals credited to taxes accrued, (b) amounts credited to portion of prepaid taxes charged to current year, and (c) taxes paid and charged direct to operations or accounts other than accrued and prepaid tax accounts.
4. List the aggregate of each kind of tax in such manner that the total tax for each State and subdivision can readily be ascertained.

Line No.	Kind of Tax (a)	Balance at Beg. of Year	Balance at Beg. of Year
		Taxes Accrued (Account 236) (b)	Prepaid Taxes (Incl. in Account 165) (c)
1	FEDERAL:		
2	Income Tax (2017)	6,958,658	—
3	Income Tax (2018)	—	—
4	Payroll Tax (2017)	1,434,605	—
5	Payroll Tax (2018)	—	—
6	Pipeline Safety User Fee (2018)	—	—
7	TOTAL FEDERAL	8,393,263	—
8	STATE OF OREGON:		
9	Excise Tax (2017)	1,730,090	—
10	Excise Tax (2018)	—	—
11	Payroll Tax (2017)	172,649	—
12	Payroll Tax (2018)	—	—
13	Property Tax (2017-2018)	—	11,084,853
14	Property Tax (2018-2019)	—	—
15	Regulatory Commission Fee (2018)	—	—
16	Oregon Department of Energy (2018)	—	—
17	TOTAL OREGON	1,902,739	11,084,853
18	STATE OF CALIFORNIA:		
19	Income Tax (2017)	(71,006)	—
20	Income Tax (2018)	—	—
21	TOTAL CALIFORNIA	(71,006)	—
22	STATE OF WASHINGTON:		
23	Excise Tax (2018)	—	—
24	Payroll Tax (2017)	209	—
25	Payroll Tax (2018)	—	—
26	Property Tax (2017)	1,490,642	—
27	Property Tax (2018)	—	—
28	Regulatory Commission Fee (2018)	—	—
29	Public Utility Tax (2017)	357,581	—
30	Public Utility Tax (2018)	—	—
31	TOTAL WASHINGTON	1,848,432	—
32	COUNTY & MUNICIPAL:		
33	Income Tax (2017)	(74,778)	—
34	Income Tax (2018)	—	—
35	Franchise Fees	6,844,937	—
36	TOTAL COUNTY & MUNICIPAL	6,770,159	—
37	TOTAL	18,843,587	11,084,853

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**TAXES ACCRUED, PREPAID AND CHARGED DURING YEAR, DISTRIBUTION OF TAXES CHARGED
(Show utility dept where applicable and acct charged) (Continued)**

5. If any tax (exclude Federal and State income taxes) covers more than one year, show the required information separately for each tax year, identifying the year in column (a).
6. Enter all adjustments of the accrued and prepaid tax accounts in column (f) and explain each adjustment in a footnote. Designate debit adjustments by parentheses.
7. Do not include on this page entries with respect to deferred income taxes or taxes collected through payroll
8. Show in columns (i) thru (p) how the taxed accounts were distributed. Show both the utility department and number of account charged. For taxes charged to utility plant, show the number of the appropriate balance sheet plant account or subaccount.
9. For any tax apportioned to more than one utility department or account, state in a footnote the basis (necessity) of apportioning such tax.
10. Items under \$250,000 may be grouped.
11. Report in column (q) the applicable effective state income tax rate

Taxes Charged During the Year (d)	Taxes Paid During the Year (e)	Adjustments (f)	Balance at End of Year Taxes Accrued (Account 236) (g)	Balance at End of Year Taxes Prepaid (Account 165) (h)	Line No.
					1
(6,819,349)	(8,000,000)	7,860,691	—	—	2
15,946,223	(12,500,000)	(7,095,085)	—	3,648,862	3
—	(1,434,605)	—	—	—	4
8,089,223	(6,721,497)	—	1,367,726	—	5
218,550	(218,550)	—	—	—	6
17,434,647	(28,874,652)	765,606	1,367,726	3,648,862	7
					8
(1,449,808)	(1,800,000)	1,519,718	—	—	9
5,203,818	(4,950,000)	(1,536,025)	—	1,282,207	10
—	(172,649)	—	—	—	11
1,442,612	(1,264,519)	—	178,093	—	12
11,108,016	(23,163)	—	—	—	13
11,800,948	(23,623,355)	—	—	11,822,407	14
1,790,395	(1,790,395)	—	—	—	15
869,789	(869,789)	—	—	—	16
30,765,770	(34,493,870)	(16,307)	178,093	13,104,614	17
					18
(35,545)	—	106,551	—	—	19
127,585	(100,000)	(134,766)	—	107,181	20
92,040	(100,000)	(28,215)	—	107,181	21
					22
203,327	(203,327)	—	—	—	23
—	(209)	—	—	—	24
5,291	(5,161)	—	130	—	25
18,971	(1,509,613)	—	—	—	26
1,752,843	—	—	1,752,843	—	27
147,230	(147,230)	—	—	—	28
—	(357,581)	—	—	—	29
2,708,974	(2,366,333)	—	342,641	—	30
4,836,636	(4,589,454)	—	2,095,614	—	31
					32
61,634	(100,314)	113,458	—	—	33
401,389	(329,000)	(113,458)	(41,069)	—	34
15,654,605	(15,110,193)	—	7,389,349	—	35
16,117,628	(15,539,507)	—	7,348,280	—	36
69,246,721	(83,597,483)	721,084	10,989,713	16,860,657	37

Adjustments:	Tax Payments to Subsidiaries	724,365
	Interest Expense	(3,281)
	Total	721,084

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**TAXES ACCRUED, PREPAID AND CHARGED DURING YEAR, DISTRIBUTION OF TAXES CHARGED
(Show utility dept where applicable and acct charged) (Continued)**

1. Give details of the combined prepaid and accrued tax accounts and show the total taxes charged to operations and other accounts during the year. Do not include gasoline and other sales taxes which have been charged to the accounts to which the taxed material was charged. If the actual or estimated amounts of such taxes are known, show the amounts in a footnote and designate whether estimated or actual amounts.
2. Include on this page, taxes paid during the year and charged direct to final accounts, (not charged to prepaid or accrued taxes). Enter the amounts in both columns (d) and (e). The balancing of this page is not affected by the inclusion of these taxes.
3. Include in column (d) taxes charged during the year, taxes charged to operations and other accounts through (a) accruals credited to taxes accrued, (b) amounts credited to portion of prepaid taxes charged to current year, and (c) taxes paid and charged direct to operations or accounts other than accrued and prepaid tax accounts.
4. List the aggregate of each kind of tax in such manner that the total tax for each State and subdivision can readily be ascertained.

Line No.	Electric (Account 408.1, 409.1) (i)	Gas (Account 408.1, 409.1) (j)	Other Utility Dept. (Account 408.1, 409.1) (k)	Other Income and Deductions (Account 408.2, 409.2) (l)
1				
2	—	(6,853,685)	—	34,336
3	—	13,366,554	—	2,579,669
4	—	—	—	—
5	—	5,336,607	—	—
6	—	218,550	—	—
7	—	12,068,026	—	2,614,005
8	—	—	—	—
9	—	(1,456,730)	—	6,922
10	—	4,314,076	—	889,742
11	—	—	—	—
12	—	950,528	—	—
13	—	10,155,824	—	354,475
14	—	10,043,500	—	357,665
15	—	1,790,395	—	—
16	—	869,789	—	—
17	—	26,667,382	—	1,608,804
18	—	—	—	—
19	—	(35,715)	—	170
20	—	105,771	—	21,814
21	—	70,056	—	21,984
22	—	—	—	—
23	—	90,472	—	—
24	—	—	—	—
25	—	3,486	—	—
26	—	18,971	—	—
27	—	1,733,190	—	—
28	—	147,230.00	—	—
29	—	—	—	—
30	—	2,708,974	—	—
31	—	4,702,323	—	—
32	—	—	—	—
33	—	6,250	—	—
34	—	38,724	—	—
35	—	14,596,585	—	—
36	—	14,641,559	—	—
37	—	58,149,346	—	4,244,793

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**TAXES ACCRUED, PREPAID AND CHARGED DURING YEAR, DISTRIBUTION OF TAXES CHARGED
(Show utility dept where applicable and acct charged) (Continued)**

5. If any tax (exclude Federal and State income taxes) covers more than one year, show the required information separately for each tax year, identifying the year in column (a).
6. Enter all adjustments of the accrued and prepaid tax accounts in column (f) and explain each adjustment in a footnote. Designate debit adjustments by parentheses.
7. Do not include on this page entries with respect to deductions or otherwise pending transmittal of such taxes to the taxing authority.
8. Show in columns (i) thru (p) how the taxed accounts were distributed. Show both the utility department and number of account charged. For taxes charged to utility plant, show the number of the appropriate balance sheet plant account or subaccount.
9. For any tax apportioned to more than one utility department or account, state in a footnote the basis (necessity) of apportioning such tax.
10. Items under \$250,000 may be grouped.

Extraordinary Items (Account 409.3) (m)	Other Utility Opn. Income (Account 408.1, 409.1) (n)	Adjustment to Ret. Earnings (Account 439) (o)	Other (p)	State/Local Income Tax Rate (q)	Line No.
					1
—	—	—	—	—	2
—	—	—	—	—	3
—	—	—	—	—	4
—	—	—	2,752,616	—	5
—	—	—	—	—	6
—	—	—	2,752,616	—	7
—	—	—	—	—	8
—	—	—	—	—	9
—	—	—	—	—	10
—	—	—	—	—	11
—	—	—	492,084	—	12
—	—	—	597,717	—	13
—	—	—	1,399,783	—	14
—	—	—	—	—	15
—	—	—	—	—	16
—	—	—	2,489,584	—	17
—	—	—	—	—	18
—	—	—	—	—	19
—	—	—	—	—	20
—	—	—	—	—	21
—	—	—	—	—	22
—	—	—	112,855	—	23
—	—	—	—	—	24
—	—	—	1,805	—	25
—	—	—	—	—	26
—	—	—	19,653	—	27
—	—	—	—	—	28
—	—	—	—	—	29
—	—	—	—	—	30
—	—	—	134,313	—	31
—	—	—	—	—	32
—	—	—	55,384	—	33
—	—	—	362,665	—	34
—	—	—	1,058,020	—	35
—	—	—	1,476,069	—	36
—	—	—	6,852,582	—	37

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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MISCELLANEOUS CURRENT AND ACCRUED LIABILITIES (Account 242)

1. Describe and report the amount of other current and accrued liabilities at the end of year.
2. Minor items (less than \$250,000) may be grouped under appropriate title.

Line No.	Item (a)	Balance at End of Year (b)
1	Environmental Liabilities - Current Portion	33,111,093
2	Public Purpose	3,923,812
3	OLGA Surcharge	1,318,826
4	Workers Compensation Claims - Current Portion	517,671
5	Deferred Revenue - Appliance Center	296,738
6	Western States Pension - Current Portion	341,827
7	Smart Energy	156,612
8	Other items, each less than \$250,000	21,753
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29		
30	Total	39,688,332

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Other Deferred Credits (Account 253)

1. Report below the details called for concerning other deferred credits
2. For any deferred credit being amortized, show the period of amortization.
3. Minor items (less than \$250,000) may be grouped by classes

Line No.	Description of Other Deferred Credits (a)	Balance at The Beginning of the Year (b)	Debit Contra Account (c)	Debit Amount (d)	Credits (e)	Balance at End of Year (f)
1	Western States Pension Plan	6,813,055	—	341,825	—	6,471,230
2	HQ Build-To-Suit Construction Cost	509,972	—	—	25,537,100	26,047,072
3	Other	—	—	4,351,252	4,518,981	167,729
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30	Total	7,323,027		4,693,077	30,056,081	32,686,031

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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ACCUMULATED DEFERRED INCOME TAXES - OTHER (Account 283)

1. Report the information called for below concerning respondent's accounting for deferred income taxes relating to amounts recorded in Account 283.

2. For Other (Specify), included deferrals related to other income and deductions.

Line No.	Account Subdivisions (a)	Balance at Beginning of Year (b)	Changes During Year	Changes During Year
			Amounts Debited to Account 410.1 (c)	Amounts Credited to Account 411.1 (d)
1	Account 283			
2	Electric	—	—	—
3	Gas	—	—	—
4	Property Related	288,024,590	23,824,973	14,488,266
5	Regulatory Assets	21,818,694	4,915,464	4,845,418
6	Regulatory Liabilities	(56,470,134)		
7	Other	30,354,458	8,475,479	6,704,111
8	Total (Total of lines 3 thru 7)	283,727,608	37,215,916	26,037,795
9	Other - Non-Operating	8,088,194		
10	Other Comprehensive Income	(3,511,849)	—	—
11	TOTAL Account 283 (Total of lines 8 thru 10)	288,303,953	37,215,916	26,037,795
12	Classification of TOTAL			
13	Federal Income Tax	205,250,271	27,883,315	19,083,247
14	State Income Tax	83,053,682	9,332,601	6,954,548
15	Local Income Tax	—	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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ACCUMULATED DEFERRED INCOME TAXES - OTHER (Account 283) (Continued)

3. Provide in a footnote a summary of the type and amount of deferred income taxes reported in the beginning-of-year and end-of-year balances for deferred income taxes that the respondent estimates could be included in the development of jurisdictional recourse rates.

Changes During Year Amounts Debited to Account 410.2 (e)	Changes During Year Amounts Credited to Account 411.2 (f)	Adjustments Debits Account No. (g)	Adjustments Debits Amount (h)	Adjustments Credits Account No. (i)	Adjustments Credits Amount (j)	Balance at End of Year (k)	Line No.
							1
—	—	—	—	—	—	—	2
—	—	—	—	—	—	—	3
—	—	254,283	2,606,732		—	294,754,565	4
555,662	—	186,283	2,217,655	186	1,411,304	21,638,051	5
—	—	254	998,684		—	(57,468,818)	6
—	—	254	166,940	283	2,695,555	34,654,441	7
555,662	—		5,990,011		4,106,859	293,578,239	8
371,807	63,824		—		—	8,396,177	9
—	—	218	—		443,828	(3,068,021)	10
927,469	63,824		5,990,011		4,550,687	298,906,395	11
							12
688,183	52,752		5,409,598		3,359,668	212,635,840	13
239,286	11,072		580,413		1,191,019	86,270,555	14
—	—		—		—	—	15

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OTHER REGULATORY LIABILITIES (Account 254)

- Report below the details called for concerning other regulatory liabilities which are created through the ratemaking actions of regulatory agencies (and not includable in other amounts).
- For regulatory liabilities being amortized, show period of amortization in column (a).
- Minor items (5% of the Balance at End of Year for Account 254 or amounts less than \$250,000, whichever is less) may be grouped by classes.
- Provide in a footnote, for each line item, the regulatory citation where the respondent was directed to refund the regulatory liability (e.g Commission Order, state commission order, court decision).

Line No.	Description of Other Regulatory Liabilities (a)	Balance at Beginning of Year (b)	Debits (c)	Credits (d)	Balance at End of Year (e)
1	Storage Margin Share - Oregon (OPUC Advice 00-4 and later OPUC Advice 03-6)	11,695,398	21,430,337	25,989,065	16,254,126
2	Storage Margin Share - Washington (UG 298)	1,461,711	1,461,711	1,864,077	1,864,077
3	Deferred Derivative Unrealized Gains	2,961,758	11,867,226	18,175,595	9,270,127
4	Benefits from the 2017 Tax Cuts and Jobs Act ⁽¹⁾	213,306,164	6,171,131	18,105,553	225,240,586
5	North Mist Construction Overhead Regulatory Liability - Oregon (UM 1913)	966,989	233,355	397,110	1,130,744
6	Other	18,000	670,000	847,000	195,000
7					
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30	Total	230,410,020	41,833,760	65,378,400	253,954,660

(1) This balance represents the deferral of estimated regulatory benefits, including a gross up for income taxes, from the 2017 Tax Cut and Jobs Act. It includes both the deferral of excess deferred income taxes as well as the deferral of interim period operating result benefits as a result of the lower federal corporate income tax rate. Oregon General Rate Case Docket UG 344 and Washington General Rate Case Docket UG 181053 address the return of these benefits to customers. Docket UG 344 was subsequently concluded in March 2019 (refer to Order 19-105) and Docket UG 1810853 is expected to conclude later in 2019.

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS OPERATING REVENUES (Account 400)

1. Report below natural gas operating revenues for each prescribed account total. The amounts must be consistent with the detailed data on succeeding pages.
2. Revenues in columns (b) and (c) include transition costs from upstream pipelines.
3. Other Revenues in columns (f) and (g) include reservation charges received by the pipeline plus usage charges, less revenues reflected in columns (b) through (e). Include in columns (f) and (g) revenues for Accounts 480 - 495.

Line No.	Title of Account (a)	Revenues for Transition Costs and Take-or-Pay	Revenues for Transition Costs and Take-or-Pay	Revenues for GRI and ACA	Revenues for GRI and ACA
		Amount for Current Year (b)	Amount for Previous Year (c)	Amount for Current Year (d)	Amount for Previous Year (e)
1	480 Residential Sales				
2	481 Commercial and Industrial Sales				
3	482 Other Sales to Public Authorities				
4	483 Sales for Resale				
5	484 Interdepartmental Sales				
6	485 Intracompany Transfers				
7	487 Forfeited Discounts				
8	488 Miscellaneous Service Revenues				
9	489.1 Revenues from Transportation of Gas of Others Through Gathering Facilities				
10	489.2 Revenues from Transportation of Gas of Others Through Transmission Facilities				
11	489.3 Revenues from Transportation of Gas of Others Through Distribution Facilities				
12	489.4 Revenues from Storing Gas of Others				
13	490 Sales of Prod. Ext. from Natural Gas				
14	491 Revenues from Natural Gas Proc. by				
15	492 Incidental Gasoline and Oil Sales				
16	493 Rent from Gas Property				
17	494 Interdepartmental Rents				
18	495 Other Gas Revenues				
19	Subtotal:				
20	496 (Less) Provision for Rate Refunds				
21	TOTAL:				

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GAS OPERATING REVENUES (Account 400) (Continued)

4. If increases or decreases from previous year are not derived from previously reported figures, explain any inconsistencies in a footnote.
5. On Page 108, include information on major changes during the year, new service, and important rate increases or decreases.
6. Report the revenue from transportation services that are bundled with storage services as transportation service revenue.

Other Revenues Amount for Current Year (f)	Other Revenues Amount for Previous Year (g)	Total Operating Revenues Amount for Current Year (h)	Total Operating Revenues Amount for Previous Year (i)	Dekatherm of Natural Gas Amount for Current Year (j)	Dekatherm of Natural Gas Amount for Previous Year (k)	Line No.
407,940,700	458,762,939	407,940,700	458,762,939	41,169,985	46,519,830	1
241,293,260	274,611,130	241,293,260	274,611,130	33,540,309	36,592,210	2
—	—	—	—	—	—	3
—	—	—	—	—	—	4
—	—	—	—	—	—	5
—	—	—	—			6
2,015,349	2,205,197	2,015,349	2,205,197			7
1,380,755	1,153,004	1,380,755	1,153,004			8
—	—	—	—	—	—	9
—	—	—	—	—	—	10
21,848,308	20,351,015	21,848,308	20,351,015	38,109,993	40,917,174	11
—	—	—	—	—	—	12
—	—	—	—			13
—	—	—	—			14
—	—	—	—			15
190,377	241,126	190,377	241,126			16
—	—	—	—			17
(7,234,096)	(5,313,442)	(7,234,096)	(5,313,442)			18
667,434,653	752,010,969	667,434,653	752,010,969			19
—	—	—	—			20
667,434,653	752,010,969	667,434,653	752,010,969			21

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OTHER GAS REVENUES (ACCOUNT 495)

Report below transactions of \$250,000 or more included in Account 495, Other Gas Revenues. Group all transactions below \$250,000 in one amount and provide the number of items.

Line No.	Description of Transaction (a)	Amount (b)
1	Curtailment Unauthorized Take	1,271,625
2	Decoupling	6,695,538
3	Decoupling Amortization	(11,780,760)
4	Interstate Storage Credit	11,590,798
5	Oregon Amortizations	(4,502,034)
6	Oregon Interim Period Tax Deferral	(6,788,000)
7	Unbilled Revenue	(5,723,322)
8	Warm Amortizations	4,054,242
9	Warm Deferrals	1,058,860
10	Washington Amortizations	(2,077,834)
11	Washington Great Program	(295,276)
12	Washington Interim Period Tax Deferral	(977,306)
13	Other (Misc Gas Revenues - 3 items)	239,373
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30	Total	(7,234,096)

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GAS OPERATION AND MAINTENANCE EXPENSES			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
1	1. PRODUCTION EXPENSES		
2	A. Manufactured Gas Production		
3	Manufactured Gas Production (Submit Supplemental Statement)	N/A	N/A
4	B. Natural Gas Production		
5	B1. Natural Gas Production and Gathering		
6	Operation		
7	750 Operation Supervision and Engineering	—	—
8	751 Production Maps and Records	—	—
9	752 Gas Wells Expenses	—	—
10	753 Field Lines Expenses	—	—
11	754 Field Compressor Station Expenses	—	—
12	755 Field Compressor Station Fuel and Power	—	—
13	756 Field Measuring and Regulating Station Expenses	—	—
14	757 Purification Expenses	—	—
15	758 Gas Well Royalties	—	—
16	759 Other Expenses	—	—
17	760 Rents	—	—
18	TOTAL Operation (Total of lines 7 thru 17)	—	—
19	Maintenance		
20	761 Maintenance Supervision and Engineering	—	—
21	762 Maintenance of Structures and Improvements	—	—
22	763 Maintenance of Producing Gas Wells	—	—
23	764 Maintenance of Field Lines	—	—
24	765 Maintenance of Field Compressor Station Equipment	—	—
25	766 Maintenance of Field Meas. and Regulating Station Equipment	—	—
26	767 Maintenance of Purification Equipment	—	—
27	768 Maintenance of Drilling and Cleaning Equipment	—	—
28	769 Maintenance of Other Equipment	—	—
29	TOTAL Maintenance (Total of lines 20 thru 28)	—	—
30	TOTAL Natural Gas Production and Gathering (Total of lines 18 and 29)	—	—

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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)	Line No.
B2. Products Extraction			31
Operation			32
770 Operation Supervision and Engineering	—	—	33
771 Operation Labor	—	—	34
772 Gas Shrinkage	—	—	35
773 Fuel	—	—	36
774 Power	—	—	37
775 Materials	—	—	38
776 Operation Supplies and expenses	—	—	39
777 Gas Processed by Others	—	—	40
778 Royalties on Products Extracted	—	—	41
779 Marketing expenses	—	—	42
780 Products Purchased for Resale	—	—	43
781 Variation in Products Inventory	—	—	44
(Less) 782 Extracted Products Used by the Utility-Credit	—	—	45
783 Rents	—	—	46
Total Operation (Total of Lines 33 thru 46)	—	—	47
Maintenance			48
784 Maintenance Supervision and Engineering	—	—	49
785 Maintenance of Structures and Improvements	—	—	50
786 Maintenance of Extraction and Refining Equipment	—	—	51
787 Maintenance of Pipe Lines	—	—	52
788 Maintenance of Extracted Products Storage Equipment	—	—	53
789 Maintenance of Compressor Equipment	—	—	54
790 Maintenance of Gas Measuring and Regulating Equipment	—	—	55
791 Maintenance of Other Equipment	—	—	56
TOTAL Maintenance (Total of lines 49 thru 56)	—	—	57
TOTAL Products Extraction (Total of lines 47 and 57)	—	—	58

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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
59	C. Exploration and Development		
60	Operation		
61	795 Delay Rentals	—	—
62	796 Nonproductive Well Drilling	—	—
63	797 Abandoned Leases	—	—
64	798 Other Exploration	—	—
65	TOTAL Exploration and Development (Total of lines 61 thru 64)	—	—
66	D. Other Gas Supply Expenses		
67	Operation		
68	800 Natural Gas Well Head Purchases	—	—
69	800.1 Natural Gas Well Head Purchases, Intracompany Transfers	—	—
70	801 Natural Gas Field Line Purchases	13,744,039	12,678,362
71	802 Natural Gas Gasoline Plant Outlet Purchases	—	—
72	803 Natural Gas Transmission Line Purchases	—	—
73	804 Natural Gas City Gate Purchases	253,809,428	295,674,576
74	804.1 Liquefied Natural Gas Purchases	—	—
75	805 Other Gas Purchases	—	—
76	805.1 Purchases Gas Cost Adjustments	(16,914,611)	15,160,198
77	TOTAL Purchased Gas (Total of Lines 68 thru 76)	250,638,856	323,513,136
78	806 Exchange Gas	—	—
79	Purchased Gas Expense		
80	807.1 Well Expense-Purchased Gas	—	—
81	807.2 Operation of Purchased Gas Measuring Stations	—	—
82	807.3 Maintenance of Purchased Gas Measuring Stations	—	—
83	807.4 Purchased Gas Calculations Expense	—	—
84	807.5 Other Purchased Gas Expenses	—	—
85	TOTAL Purchased Gas Expense (Total of lines 80 thru 84)	—	—

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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)	Line No.
808.1 Gas Withdrawn from Storage-Debit	15,070,769	19,821,527	86
(Less) 808.2 Gas Delivered to Storage-Credit	(9,783,155)	(18,093,918)	87
809.1 Withdrawals of Liquefied Natural Gas for Processing-Debit	—	—	88
(Less) 809.2 Deliveries of Natural Gas for Processing-Credit	—	—	89
Gas used in Utility Operation-Credit			90
810 Gas Used for Compressor Station Fuel-Credit	—	—	91
811 Gas Used for Products Extraction-Credit	—	—	92
812 Gas Used for Other Utility Operations-Credit	(183,467)	(221,845)	93
TOTAL Gas Used in Utility Operations-Credit (lines 91 thru 93)	(183,467)	(221,845)	94
813 Other Gas Supply Expenses	—	—	95
TOTAL Other Gas Supply Exp. (Total of lines 77, 78, 85, 86-89, 94, 95)	255,743,003	325,018,900	96
TOTAL Production Expenses (Total of lines 3, 30, 58, 65, 96)	255,743,003	325,018,900	97
2. NATURAL GAS STORAGE, TERMINALING AND PROCESSING EXPENSES			98
A. Underground Storage Expenses			99
Operation			100
814 Operation Supervision and Engineering	—	—	101
815 Maps and Records	—	—	102
816 Well Expenses	294,860	286,568	103
817 Lines Expenses	—	—	104
818 Compressor Station Fuel and Power	90,747	81,899	105
819 Compressor Station Fuel and Power	—	—	106
820 Measuring and Regulating Station Expenses	2,285,568	1,948,927	107
821 Purification Expenses	11,648	32,269	108
822 Exploration and Development	—	—	109
823 Gas Losses	—	—	110
824 Other Expenses	—	—	111
825 Storage Well Royalties	—	—	112
826 Rents	—	—	113
TOTAL Operation (Total of lines of 101 thru 113)	2,682,823	2,349,663	114

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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
115	Maintenance		
116	830 Maintenance Supervision and Engineering	—	—
117	831 Maintenance of Structures and Improvements	—	—
118	832 Maintenance of Reservoirs and Wells	201,913	284,043
119	833 Maintenance of Lines	—	—
120	834 Maintenance of Compressor Station Equipment	260,829	39,360
121	835 Maintenance of Measuring and Regulating Station Equip.	—	—
122	836 Maintenance of Purification Equipment	—	—
123	837 Maintenance of Other Equipment	—	—
124	TOTAL Maintenance (Total of lines 116 thru 123)	462,742	323,403
125	TOTAL Underground Storage Expenses (lines 114 and 124)	3,145,565	2,673,066
126	B. Other Storage Expenses		
127	Operation		
128	840 Operation supervision and Engineering	74,095	71,508
129	841 Operation Labor and Expenses	—	—
130	842 Rents	—	—
131	842.1 Fuel	—	—
132	842.2 Power	—	—
133	842.3 Gas Losses	—	—
134	TOTAL Operation (Total of lines 128 thru 133)	74,095	71,508
135	Maintenance		
136	843.1 Maintenance Supervision and Engineering	—	—
137	843.2 Maintenance of Structures and Improvements	—	—
138	843.3 Maintenance of Gas Holders	—	—
139	843.4 Maintenance of Purification Equipment	—	—
140	843.5 Maintenance of Liquefaction Equipment	—	—
141	843.6 Maintenance of Vaporizing Equipment	—	—
142	843.7 Maintenance of Compressor Equipment	—	—
143	843.8 Maintenance of Measuring and Regulating Equipment	—	—
144	843.9 Maintenance of Other Equipment	—	—
145	TOTAL Maintenance (Total of lines 136 thru 144)	—	—
146	TOTAL Other Storage Expenses (Total of lines 134 and 145)	74,095	71,508

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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)	Line No.
C. Liquefied Natural Gas Terminaling and Processing Expenses			147
Operation			148
844.1 Operation Supervision and Engineering	1,589,697	1,539,525	149
844.2 LNG Processing Terminal Labor and Expenses	—	—	150
844.3 Liquefaction Processing Labor and Expenses	—	—	151
844.4 Liquefaction Transportation Labor and Expenses	—	—	152
844.5 Measuring and Regulating Labor and Expenses	—	—	153
844.6 Compressor Station Labor and Expenses	—	—	154
844.7 Communication system Expenses	—	—	155
844.8 System Control and Load Dispatching	—	—	156
845.1 Fuel	—	—	157
845.2 Power	—	—	158
845.3 Rents	—	—	159
845.4 Demurrage Charges	—	—	160
845.5 Wharfage Receipts-Credit	(85,007)	(90,056)	161
845.6 Processing Liquefied of Vaporized Gas by Others	—	—	162
846.1 Gas Losses	—	—	163
846.2 Other Expenses	—	—	164
TOTAL Operation (Total of lines 149 thru 164)	1,504,690	1,449,469	165
Maintenance			166
847.1 Maintenance Supervision and Engineering	—	—	167
847.2 Maintenance of Structures and Improvements	983,047	771,788	168
847.3 Maintenance of LNG Processing Terminal Equipment	—	—	169
847.4 Maintenance of LNG Transportation Equipment	—	—	170
847.5 Maintenance of Measuring and Regulating Equipment	—	—	171
847.6 Maintenance of Compressor Station Equipment	—	—	172
847.7 Maintenance of Communication Equipment	—	—	173
847.8 Maintenance of Other Equipment	—	—	174
TOTAL Maintenance (Total of lines 167 thru 174)	983,047	771,788	175
TOTAL Liquefied Nat Gas Terminaling and Proc Exp (Total of lines 165 & 175)	2,487,737	2,221,257	176
TOTAL Natural Gas Storage (Total of lines 125, 146, and 176)	5,707,397	4,965,831	177

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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
178	3. TRANSMISSION EXPENSES		
179	Operation		
180	850 Operation Supervision and Engineering	—	—
181	851 System Control and Load Dispatching	—	—
182	852 Communication system Expenses	—	—
183	853 Compressor Station Labor and Expenses	—	—
184	854 Gas for Compressor Station Fuel	—	—
185	855 Other Fuel and Power for Compressor Stations	—	—
186	856 Mains Expenses	1,516,707	1,422,310
187	857 Measuring and Regulating Station Expenses	—	—
188	858 Transmission and Compression of Gas by Others	—	—
189	859 Other Expenses	—	—
190	860 Rents	—	—
191	TOTAL Operations (Total of lines 180 thru 190)	1,516,707	1,422,310
192	Maintenance		
193	861 Maintenance Supervision and Engineering	—	—
194	862 Maintenance of Structures and Improvements	—	—
195	863 Maintenance of Mains	170,115	324,822
196	864 Maintenance of Compressor Station Equipment	—	—
197	865 Maintenance of Measuring and Regulating Station Equipment	—	—
198	866 Maintenance of Communication Equipment	—	—
199	867 Maintenance of Other Equipment	—	—
200	TOTAL Maintenance (Total of lines 193 thru 199)	170,115	324,822
201	TOTAL Transmission Expenses (Total of lines 191 and 200)	1,686,822	1,747,132
202	4. DISTRIBUTION EXPENSES		
203	Operation		
204	870 Operation Supervision and Engineering	2,861,336	2,606,304
205	871 Distribution Load Dispatching	—	—
206	872 Compressor Station Labor and Expenses	—	—
207	873 Compressor Station Fuel and Power	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)	Line No.
874 Mains and Services Expenses	9,028,992	7,833,278	208
875 Measuring and Regulating Station Expenses-General	(42,604)	50,561	209
876 Measuring and Regulating Station Expenses-Industrial	—	—	210
877 Measuring and Regulating Station Expenses-City Gas	488,036	553,865	211
878 Meter and House Regulator Expenses	5,425,942	5,382,954	212
879 Customer Installations Expenses	7,556,905	6,399,826	213
880 Other Expenses	1,268,874	1,481,034	214
881 Rents	215,389	228,854	215
TOTAL Operations (Total of lines 204 thru 215)	26,802,870	24,536,676	216
Maintenance			217
885 Maintenance Supervision and Engineering	4,043,521	3,380,701	218
886 Maintenance of Structures and Improvements	—	—	219
887 Maintenance of Mains	2,862,835	2,702,659	220
888 Maintenance of Compressor Station Equipment	—	—	221
889 Maintenance of Measuring & Regulating Station Equipment-General	1,470,629	1,563,970	222
890 Maintenance of Meas. and Reg. Station Equipment-Industrial	—	—	223
891 Maintenance of Meas & Reg Station Equip-City Gate	222,873	188,375	224
892 Maintenance of Services	675,263	642,341	225
893 Maintenance of Meters and House Regulators	2,534,777	2,522,985	226
894 Maintenance of Other Equipment	68,315	23,971	227
TOTAL Maintenance (Total of lines 218 thru 227)	11,878,213	11,025,002	228
TOTAL Distribution Expenses (Total of lines 216 and 228)	38,681,083	35,561,678	229
5. CUSTOMER ACCOUNTS EXPENSES			230
Operation			231
901 Supervision	1,449,870	1,313,468	232
902 Meter Reading Expenses	876,768	832,116	233
903 Customer Records and Collection Expenses	16,074,368	16,157,912	234

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS OPERATION AND MAINTENANCE EXPENSES (Continued)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
235	904 Uncollectible Accounts	678,554	864,691
236	905 Miscellaneous Customer Accounts Expenses	—	—
237	TOTAL Customer Accounts Expenses (Total of lines 232-236)	19,079,560	19,168,187
238	6. CUSTOMER SERVICE AND INFORMATIONAL EXPENSE		
239	Operation		
240	907 Supervision	3,912	1,886
241	908 Customer Assistance Expense	1,251,734	467,102
242	909 Informational and Instructional Expenses	1,810,357	1,743,866
243	910 Miscellaneous Customer Service and Informational Expenses	163,343	179,063
244	TOTAL Customer Service & Information Expenses (Total of lines 240 thru 243)	3,229,346	2,391,917
245	7. SALES EXPENSES		
246	Operation		
247	911 Supervision	9,375	143,410
248	912 Demonstration and Selling Expenses	1,653,256	3,485,124
249	913 Advertising Expenses	443,839	401,650
250	916 Miscellaneous Sales Expenses	—	—
251	TOTAL Sales Expenses (Total of lines 247 thru 250)	2,106,470	4,030,184
252	8. ADMINISTRATIVE AND GENERAL EXPENSES		
253	Operation		
254	920 Administrative and General Salaries	28,595,464	27,835,981
255	921 Office Supplies and Expenses	20,819,120	19,806,564
256	(Less) 922 Administrative Expenses Transferred - Credit	(19,404,008)	(18,841,642)
257	923 Outside Services Employed	12,034,227	10,066,928
258	924 Property Insurance	3,066,612	3,195,612
259	925 Injuries and Damages	333,852	409,798
260	926 Employee Pensions and Benefits	34,073,322	30,314,906
261	927 Franchise Requirements	—	—
262	928 Regulatory Commission Expenses	—	—
263	(Less) 929 Duplicate Charges - Credit	—	—
264	930.1 General Advertising Expenses	—	—
265	930.2 Miscellaneous General Expenses	2,853,582	2,631,840
266	931 Rents	4,763,890	4,788,210
267	TOTAL Operation (Total of lines 254 thru 266)	87,136,061	80,208,197
268	Maintenance		
269	932 Maintenance of General Plant	3,757,087	3,557,910
270	TOTAL Administrative and General Expenses (Total of lines 267 and 269)	90,893,148	83,766,107
271	TOTAL Gas O&M Expenses (Total of lines 97,177, 201, 229, 237, 244, 251, and 270)	417,126,829	476,649,936

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Gas Used in Utility Operations

1. Report below details of credits during the year to Accounts 810, 811, and 812.
2. If any natural gas was used by the respondent for which a charge was not made to the appropriate operating expense or other account, list separately in column (c) the Dth of gas used, omitting entries in column (d).

Line No.	Purpose for Which Gas was Used (a)	Account Charged (b)	Natural Gas Gas Used Dth (c)	Natural Gas Amount of Credit (in dollars) (d)	Manufactured Gas Gas Used Dth (e)	Manufactured Gas Amount of Credit (in dollars) (f)
1	810 Gas Used for Compressor Station Fuel - Credit		—	—	N/A	N/A
2	811 Gas Used for Products Extraction - Credit		—	—	N/A	N/A
3	Gas Shrinkage and Other Usage in Respondent's Own Processing		—	—	N/A	N/A
4	Gas Shrinkage, etc. for Respondent's Gas Processed by Others		—	—	N/A	N/A
5	812 Gas Used for Other Utility Operations - Credit (Report separately for each principal use. Group minor uses.)		405,840	183,467	N/A	N/A
6	System - All Districts	Variable	109,993	183,467	N/A	N/A
7	LNG Plants	Inventory	96,036	0*	N/A	N/A
8	Underground Storage Compressors	Inventory	181,848	0*	N/A	N/A
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25	Total		405,840	183,467	N/A	N/A

* Included in the Cost of Inventory

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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MISCELLANEOUS GENERAL EXPENSE (Account 930.2)

1. Provide the information requested below on miscellaneous general expenses.
2. For Other Expenses, show the (a) purpose, (b) recipient and (c) amount of such items. List separately amounts of \$250,000 or more however, amounts less than \$250,000 may be grouped if the number of items so grouped is shown.

Line No.	Description (a)	Amount (in dollars) (b)
1	Industry association dues	19,778
2	Experimental and general research expenses	
	a. Gas Research Institute (GRI) aka Gas Technology Institute (GTI)	335,000
	b. Operations Technology Development (OTD)	250,000
	c. Other	194,820
3	Publishing and distributing information and reports to stockholders, trustee, registrar, and transfer agent fees and expenses, and other expenses of servicing outstanding securities of the respondent	141,907
4	Other expenses	
8	a. Directors retainers and fees	1,819,977
9	b. Annual shareholder meeting expenses	78,941
10	c. Other miscellaneous expenses	13,159
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25	Total	2,853,582

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Depreciation, Depletion and Amortization of Gas Plant (Accts 403, 404.1, 404.2, 404.3, 405) (Except Amortization of Acquisition Adjustments)

1. Report in Section A the amounts of depreciation expense, depletion and amortization for the accounts indicated and classified according to the plant functional groups shown.
2. Report in Section B, column (b) all depreciable or amortizable plant balances to which rates are applied and show a composite total. (If more desirable, report by plant account, subaccount or functional classifications other than those pre-printed in column (a). Indicate in a footnote the manner in which column (b) balances are obtained. If average balances are used, state the method of averaging used. For column (c) report available information for each plant functional classification listed in column (a). If composite depreciation accounting is used, report available information called for in columns (b) and (c) on this basis. Where the unit-of-production method is used to determine depreciation charges, show in a footnote any revisions made to estimated gas reserves.
3. If provisions for depreciation were made during the year in addition to depreciation provided by application of reported rates, state in a footnote the amounts and nature of the provisions and the plant items to which related.

See following pages

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
Intangible Plant								
301 ORGANIZATION	—	—	—	—	—	—	—	—
302 FRANCHISES & CONSENTS	—	—	—	—	—	—	—	—
303.1 COMPUTER SOFTWARE	26,060,764	3,411,690	—	—	—	—	—	29,472,454
303.2 CUSTOMER INFORMATION SYSTEM	32,348,168	—	—	—	—	—	—	32,348,168
303.3 INDUSTRIAL & COMMERCIAL BIL	4,146,951	—	—	—	—	—	—	4,146,951
303.4 CRMS	682,893	—	—	—	—	—	—	682,893
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—	—	—
Intangible Plant Subtotal*	63,238,775	3,411,690	—	—	—	—	—	66,650,465
Production Plant - Oil Gas								
304.1 LAND	—	—	—	—	—	—	—	—
305.2 P P O G STRU & IMPR-SEWER S	—	—	—	—	—	—	—	—
305.5 P P O G STRU & IMPR-OTHER Y	13,814	—	—	—	—	—	—	13,814
312.3 P P O G FUEL HANDLING AND S	—	—	—	—	—	—	—	—
318.3 P P O G LIGHT OIL REFINING	152,141	—	—	—	—	—	—	152,141
318.5 P P O G TAR PROCESSING	255,729	—	—	—	—	—	—	255,729
325 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—	—	—
327 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
328 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—	—	—
331 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
332 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
333 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
334 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
Production Plant - Oil Gas Subtotal*	421,683	—	—	—	—	—	—	421,683
Production Plant - Other								
305.11 GAS PRODUCTION - COTTAGE G	8,736	—	—	—	—	—	—	8,736
305.17 STRUCTURES MIXING STATION	51,246	—	—	—	—	—	—	51,246
311 P P OTHER-LIQUEFIED PETROLE	—	—	—	—	—	—	—	—
311.4 P P OTHER-L P G GRANGER	—	—	—	—	—	—	—	—
311.7 LIQUIFIED GAS EQUIPMENT COO	8,066	—	—	—	—	—	—	8,066
311.8 LIQUIFIED GAS EQUIPMENT LIN	6,585	—	—	—	—	—	—	6,585
319 GAS MIXING EQUIPMENT GASCO	194,720	—	—	—	—	—	—	194,720
Production Plant - Other Subtotal*	269,353	—	—	—	—	—	—	269,353

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
Natural Gas Underground Storage								
350.1 LAND	—	—	—	—	—	—	—	—
350.2 RIGHTS-OF-WAY	28,695	1,741	—	—	—	—	—	30,436
351 STRUCTURES AND IMPROVEMENTS	2,789,826	134,489	—	—	—	—	—	2,924,316
352 WELLS	11,805,512	450,171	—	—	—	—	—	12,255,683
352.1 STORAGE LEASEHOLD & RIGHTS	1,670,417	74,963	—	—	—	—	—	1,745,379
352.2 RESERVOIRS	2,530,955	142,784	—	—	—	—	—	2,673,739
352.3 NON-RECOVERABLE NATURAL GAS	3,440,885	117,761	—	—	—	—	—	3,558,645
353 LINES	3,176,072	138,657	—	—	—	—	—	3,314,729
354 COMPRESSOR STATION EQUIPMENT	18,729,797	800,020	—	—	—	—	—	19,529,817
355 MEASURING / REGULATING EQUIPM	4,583,709	161,989	—	—	—	—	—	4,745,697
356 PURIFICATION EQUIPMENT	232,445	7,591	—	—	—	—	—	240,036
357 OTHER EQUIPMENT	857,756	42,605	—	—	—	—	—	900,361
Natural Gas Underground Storage Subtotal*	49,846,067	2,072,772	—	—	—	—	—	51,918,839
Local Storage Plant								
360.11 LAND - LNG LINNTON	—	—	—	—	—	—	—	—
360.12 LAND - LNG NEWPORT	—	—	—	—	—	—	—	—
360.2 LAND - OTHER	—	—	—	—	—	—	—	—
361.11 STRUCTURES & IMPROVEMENTS	2,440,507	319,901	—	—	—	—	—	2,760,407
361.12 STRUCTURES & IMPROVEMENTS	2,278,225	343,807	—	—	—	—	—	2,622,032
361.2 STRUCTURES & IMPROVEMENTS -	11,425	467	—	—	—	—	—	11,891
362.11 GAS HOLDERS - LNG LINNTON	2,343,855	108,814	—	—	—	—	—	2,452,669
362.12 GAS HOLDERS - LNG NEWPORT	5,735,573	158,352	—	—	—	—	—	5,893,926
362.2 GAS HOLDERS - LNG OTHER	1,213	20	—	—	—	—	—	1,234
363.11 LIQUEFACTION EQUIP. - LINN	2,561,759	87,116	—	—	—	—	—	2,648,875
363.12 LIQUEFACTION EQUIP - NEWPO	7,149,990	92,264	—	—	—	—	—	7,242,254
363.21 VAPORIZING EQUIP - LINNTON	2,396,494	55,510	—	—	—	—	—	2,452,004
363.22 VAPORIZING EQUIP - NEWPORT	290,733	22,029	—	—	—	—	—	312,762
363.31 COMPRESSOR EQUIP - LINNTON	206,897	—	—	—	—	—	—	206,897
363.32 COMPRESSOR EQUIPMENT - NE	553,366	231,307	—	—	—	—	—	784,673
363.41 MEASURING & REGULATING EQU	610,581	19,747	—	—	—	—	—	630,328
363.42 MEASURING & REGULATING EQU	190,155	61,423	—	—	—	—	—	251,578
363.5 CNG REFUELING FACILITIES	1,392,264	39,769	—	—	—	—	—	1,432,033
363.6 LNG REFUELING FACILITIES	739,473	—	—	—	—	—	—	739,473
Local Storage Plant Subtotal*	28,902,511	1,540,526	—	—	—	—	—	30,443,037

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class	Beginning			Cost of	Salvage and	Transfers and		Ending
FERC Plant Account	Reserve	Provision	Retirements	Removal	Other Credits	Adjustments	Loss/(Gain)	Reserve*
UTILITY								
Transmission Plant								
365.1	LAND	—	—	—	—	—	—	—
365.2	LAND RIGHTS	2,008,335	118,022	—	—	—	—	2,126,357
366.3	STRUCTURES & IMPROVEMENTS -	329,124	29,633	—	—	—	—	358,757
367	MAINS	32,552,224	4,535,742	—	—	—	—	37,087,966
367.21	NORTH MIST TRANSMISSION LI	1,129,936	47,429	—	—	—	—	1,177,365
367.22	SOUTH MIST TRANSMISSION LI	10,669,024	346,007	—	—	—	—	11,015,031
367.23	SOUTH MIST TRANSMISSION LI	13,688,539	888,735	—	—	—	—	14,577,274
367.24	11.7M S MIST TRANS LINE	5,724,229	433,372	—	—	—	—	6,157,601
367.25	12M NORTH S MIST TRANS	5,793,077	465,256	—	—	—	—	6,258,333
367.26	38M NORTH S MIST TRANS	21,421,198	1,699,818	—	—	—	—	23,121,017
368	TRANSMISSION COMPRESSOR	(9)	—	—	—	—	—	(9)
369	MEASURING & REGULATE STATION	1,551,358	102,740	—	—	—	—	1,654,098
370	COMMUNICATION EQUIPMENT	—	—	—	—	—	—	—
Transmission Plant Subtotal*		94,867,034	8,666,755	—	—	—	—	103,533,789
Distribution Plant								
374.1	LAND	—	—	—	—	—	—	—
374.2	LAND RIGHTS	1,561,621	119,540	—	—	—	—	1,681,161
375	STRUCTURES & IMPROVEMENTS	86,857	5,118	—	—	—	—	91,974
376.11	MAINS < 4"	325,049,387	15,153,745	(219,323)	(945,330)	40,352	—	339,078,831
376.12	MAINS 4" & >	223,103,421	13,447,225	(364,262)	(1,133,889)	37,044	—	235,089,539
377	COMPRESSOR STATION EQUIPMENT	649,465	17,691	—	—	—	—	667,156
378	MEASURING & REG EQUIP - GENER	12,249,857	766,849	—	—	—	—	13,016,706
379	MEASURING & REG EQUIP - GATE	2,454,531	480,518	—	—	—	—	2,935,048
380	SERVICES	406,252,227	21,397,788	(1,714,774)	(2,079,495)	—	—	423,855,747
381	METERS	23,080,068	2,087,140	(1,576,280)	—	—	—	23,590,928
381.1	METERS (ELECTRONIC)	1,653,033	291,035	—	—	—	—	1,944,068
381.2	ERT (ENCODER RECEIVER TRANS	21,102,043	2,877,188	(1,074,843)	—	—	—	22,904,389
382	METER INSTALLATIONS	6,993,222	1,704,060	(2,778,764)	—	—	—	5,918,519
382.1	METER INSTALLATIONS (ELECTR	63,514	16,478	—	—	—	—	79,992
382.2	ERT INSTALLATION (ENCODER	5,469,140	572,711	(125,764)	—	—	—	5,916,087
383	HOUSE REGULATORS	266,532	60,684	—	—	—	—	327,216
386	OTHER PROPERTY ON CUSTOMERS P	—	141,299	—	—	—	—	141,299
387.1	CATHODIC PROTECTION TESTING	142,388	1,034	—	—	—	—	143,422
387.2	CALORIMETERS @ GATE STATIONS	96,424	—	—	—	—	—	96,424
387.3	METER TESTING EQUIPMENT	72,671	—	—	—	—	—	72,671
Distribution Plant Subtotal*		1,030,346,401	59,141,004	(7,854,009)	(4,158,713)	77,396	—	1,077,552,079

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
General Plant								
389 LAND	437,351	—	—	—	—	—	—	437,351
390 STRUCTURES & IMPROVEMENTS	10,636,914	1,259,469	—	—	—	—	—	11,896,383
390.1 SOURCE CONTROL PLANT	4,268,989	913,588	—	—	—	—	—	5,182,577
391.1 OFFICE FURNITURE & EQUIPMEN	8,210,159	814,384	(3,704,724)	—	—	—	—	5,319,819
391.2 COMPUTERS	16,217,939	4,896,182	(6,416,184)	—	—	—	—	14,697,937
391.3 ON SITE BILLING	—	—	—	—	—	—	—	—
391.4 CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—	—	—
392 TRANSPORTATION EQUIPMENT	9,889,082	2,349,557	(1,541,208)	—	251,821	—	—	10,949,252
393 STORES EQUIPMENT	119,406	—	—	—	—	—	—	119,406
394 TOOLS - SHOP & GARAGE EQUIPUI	4,205,571	789,738	—	—	11,262	—	—	5,006,571
395 LABORATORY EQUIPMENT	68,293	(2)	(68,016)	—	—	—	—	275
396 POWER OPERATED EQUIPMENT	2,807,938	245,867	(549,609)	—	136,469	—	—	2,640,665
397 GEN PLANT-COMMUNICATION EQU	40,199	6,826	—	—	—	—	—	47,025
397.1 MOBILE	410,859	6,543	(475,621)	—	—	—	—	(58,219)
397.2 OTHER THAN MOBILE & TELEMET	1,690,854	(2,912)	(1,680,896)	—	—	—	—	7,046
397.3 TELEMETERING - OTHER	2,998,047	44,035	(2,807,778)	—	—	—	—	234,304
397.4 TELEMETERING - MICROWAVE	976,258	50,458	(497,290)	—	—	—	—	529,426
397.5 TELEPHONE EQUIPMENT	331,995	72,039	—	—	—	—	—	404,034
398 GEN PLANT-MISCELLANEOUS EQU	—	—	—	—	—	—	—	—
398.1 PRINT SHOP	83,249	(82)	(78,890)	—	—	—	—	4,277
398.2 KITCHEN EQUIPMENT	4,137	634	—	—	—	—	—	4,771
398.3 JANITORIAL EQUIPMENT	14,873	—	—	—	—	—	—	14,873
398.4 INSTALLED IN LEASED BUILDINGS	10,120	—	—	—	—	—	—	10,120
398.5 OTHER MISCELLANEOUS EQUIPMENT	66,739	—	—	—	—	—	—	66,739
General Plant Subtotal*	63,488,972	11,446,324	(17,820,216)	—	399,552	—	—	57,514,632
Utility Property Grand Total*	1,331,380,797	86,279,071	(25,674,225)	(4,158,713)	476,948	—	—	1,388,303,877

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
NON UTILITY								
Intangible Plant								
303.1	COMPUTER SOFTWARE	52,333	7,713	—	—	—	—	60,047
303.2	CUSTOMER INFORMATION SYSTEM	46,503	3,564	—	—	—	—	50,067
Non Utility	Intangible Plant Subtotal*	98,837	11,277	—	—	—	—	110,114
Natural Gas Underground Storage								
352	WELLS	3,949,872	334,574	—	—	—	—	4,284,446
352.1	STORAGE LEASEHOLD & RIGHTS	221	19	—	—	—	—	240
352.2	RESERVOIRS	876,487	68,143	—	—	—	—	944,630
353	LINES	388,292	37,749	—	—	—	—	426,041
354	COMPRESSOR STATION EQUIPMENT	4,462,958	363,075	—	—	—	—	4,826,033
355	MEASURING / REGULATING EQUIPM	2,111,935	201,768	—	—	—	—	2,313,703
357	OTHER EQUIPMENT	11,598	1,431	—	—	—	—	13,029
Non Utility	Natural Gas Underground Storage Subtotal*	11,801,363	1,006,759	—	—	—	—	12,808,122
Transmission Plant								
368	TRANSMISSION COMPRESSOR	2,325,830	226,554	—	—	—	—	2,552,384
Non Utility	Transmission Plant Subtotal*	2,325,830	226,554	—	—	—	—	2,552,384
Distribution Plant								
376.12	MAINS 4" & >	235,735	21,112	—	—	—	—	256,847
Non Utility	Distribution Plant Subtotal*	235,735	21,112	—	—	—	—	256,847
General Plant								
389	LAND	—	—	—	—	—	—	—
390	STRUCTURES & IMPROVEMENTS	34,322	4,534	—	—	—	—	38,856
Non Utility	General Plant Subtotal*	34,322	4,534	—	—	—	—	38,856
Non Utility Other								
121.1	NON-UTIL PROP-DOCK	1,947,067	—	—	—	—	—	1,947,067
121.2	NON-UTIL PROP-LAND	—	—	—	—	—	—	—
121.3	NON-UTIL PROP-OIL ST	2,237,730	19,713	—	—	—	—	2,257,443
121.7	NON-UTIL PROP-APPL CENTER	38,557	4,383	—	—	—	—	42,940
121.8	NON-UTIL PROP-STORAGE	(1)	—	—	—	—	—	(1)
Non Utility	Other*	4,223,353	24,096	—	—	—	—	4,247,449
Non Utility Property Grand Total*		18,719,439	1,294,333	—	—	—	—	20,013,772

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
TOTAL SUMMARY ALL UTILITY DEPRECIATION RESERVES		12/31/2018						
UTILITY								
108002	(9,526,867)							
108003	36,679							
108004	548,716							
108009	(206,898)							
108010	(45,119,325)							
108011	1,050,513,661							
108012	14,366,852							
108013	(3,461,707)							
108014	(824,851)							
108015	2,924,227							
108100	—							
108102	379,053,389							
SUBTOTAL*		1,388,303,877						
ADD:								
108001 REMOVAL WORK IN PROCESS		(34,857,379)						
TOTAL UTILITY DEPRECIATION*		1,353,446,497						
TOTAL SUMMARY ALL NON-UTILITY RESERVES DEPRECIATION								
NON UTILITY								
122002	(100,635)							
122026	1,034							
122027	4,395,349							
122028	14,838,808							
122029	(531,316)							
122100	—							
122102	1,410,532							
TOTAL NON UTILITY DEPRECIATION*		20,013,772						

* May not foot due to rounding

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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DEPRECIATION, DEPLETION, AND AMORTIZATION OF GAS PLANT (Continued)

4. Add rows as necessary to completely report all data. Number the additional rows in sequence as 2.10, 3.10, 3.02, etc.

Line No.	Functional Classification (a)	Plant Bases (in thousands) (b)	Applied Depreciation or Amortization Rates (percent) (c)
1	Production and Gathering Plant		
2	Offshore	N/A	N/A
3	Onshore	N/A	N/A
4	Underground Gas Storage Plant	143,921	1.76%
5	Transmission Plant		
6	Offshore	N/A	N/A
7	Onshore	N/A	N/A
8	General Plant	N/A	N/A
9			
10			
11			
12			
13			
14			
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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PARTICULARS CONCERNING CERTAIN INCOME DEDUCTIONS AND INTEREST CHARGES ACCOUNTS

Report the information specified below, in the order given, for the respective income deduction and interest charges accounts.

(a) Miscellaneous Amortization (Account 425) - Describe the nature of items included in this account, the contra account charged, the total of amortization charges for the year, and the period of amortization.

(b) Miscellaneous Income Deductions - Report the nature, payee, and amount of other income deductions for the year as required by Accounts 426.1, Donations; 426.2, Life Insurance; 426.3, Penalties; 426.4, Expenditures for Certain Civic, Political and Related Activities; and 426.5, Amounts of less than \$250,000 may be grouped by classes within the above accounts.

(c) Interest on Debt to Associated Companies (Account 430) -For each associated company that incurred interest on debt during the year, indicate the amount and interest rate respectively for (a) advances on notes, (b) advances on open account, (c) notes payable, (d) accounts payable, and (e) other debt, and total interest. Explain the nature of other debt on which interest was incurred during the year.

(d) Other Interest Expense (Account 431) - Report details including the amount and interest rate for other interest charges incurred during the year.

Line No.	Item (a)	Amount (b)
1	Account 425 Miscellaneous Amortization	—
3	Account 426.1 Donations	1,107,144
4	Account 426.2 Life Insurance - Increase in CSV and Death Benefits	(1,682,347)
5	Account 426.3 Penalties - Oregon Department of Transportation	—
6	Account 426.4 Civic, Political and Related Activities	1,232,171
7	Account 426.5 Other Deductions	51,252
8	Total Account 426	708,220
9	Account 430 Interest on Debt to Associated Companies	—
10	Account 431 Other Interest Expense	
11	Deferred Compensation	509,865
12	Line of Credit	517,684
13	Notes Payable	1,768,550
14	Other	108,782
15	Total Account 431	2,904,881
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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REGULATORY COMMISSION EXPENSES (Account 928)

1. Report below details of regulatory commission expenses incurred during the current year (or in previous years, if being amortized) relating to formal cases before a regulatory body, or cases in which such a body was a party.
2. In column (b) and (c), indicate whether the expenses were assessed by a regulatory body or were otherwise incurred by the utility.

Line No.	Description (Furnish name of regulatory commission or body, the docket or case number, and a description of the case.) (a)	Assessed by Regulatory Commission (b)	Expenses of Utility (c)	Total Expenses to Date (d)	Deferred in Account 182.3 at Beginning of Year (e)
1					
2	Northwest Natural does not track expenses by formal regulatory cases.				
3					
4					
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22					
23					
24					
25	Total				

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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REGULATORY COMMISSION EXPENSES (Account 928) (Continued)

3. Show in column (k) any expenses incurred in prior years that are being amortized. List in column (a) the period of amortization.
4. Identify separately all annual charge adjustments (ACA)
5. List in column (f), (g), and (h) expenses incurred during year which were charges currently to income, plant, or other accounts.
6. Minor items (less than \$250,000) may be grouped.

Expenses Incurred During Year Charged Currently To Department (f)	Expenses Incurred During Year Charged Currently To Account No. (g)	Expenses Incurred During Year Charged Currently To Amount (h)	Expenses Incurred During Year Charged Currently To Deferred to Account 192.3 (i)	Amortized During Year Contra Account (j)	Amortized During Year Amount (k)	Deferred in Account 182.3 at End of Year (l)	Line No.
							1
Northwest Natural does not track expenses by formal regulatory cases.							2
							3
							4
							5
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Employee Pensions and Benefits (Account 926)

1. Report below the items contained in Account 926, Employee Pensions & Benefits

Line No.	Expense (a)	Amount (b)
1	Health Benefits	11,728,738
2	Pensions - defined benefit plans	8,572,352
3	Defined contribution plans	4,153,322
4	Pensions - other	2,651,132
5	Benefits dept salaries and wages	2,082,890
6	Stock compensation expenses	1,801,283
7	Other postemployment benefit plans	1,756,028
8	Workers compensation and other Short Term Disability/Family Leave	840,435
9	Other Benefits	487,142
10		
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30	Total	34,073,322

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DISTRIBUTION OF SALARIES AND WAGES

Report below the distribution of total salaries and wages for the year. Segregate amounts originally charged to clearing accounts to Utility Departments, Construction, Plant Removals and Other Accounts, and enter such amounts in the appropriate lines and columns provided. Salaries and wages billed to the Respondent by an affiliated company must be assigned to the particular operating function(s) relating to the expenses.
In determining this segregation of salaries and wages originally charged to clearing accounts, a method of approximation giving substantially correct results may be used. When reporting detail of other accounts, enter as many rows as necessary numbered sequentially starting with 75.01, 75.02, etc

Line No.	Classification (a)	Direct Payroll Distribution (b)	Payroll Billed by Affiliated Companies (c)	Allocation of Payroll Charged for Clearing Accounts (d)	Total (e)
1	Electric				
2	Operation				
3	Production	—	—	—	—
4	Transmission	—	—	—	—
5	Distribution	—	—	—	—
6	Customer Accounts	—	—	—	—
7	Customer Service and Informational	—	—	—	—
8	Sales	—	—	—	—
9	Administrative and General	—	—	—	—
10	TOTAL Operation (Total of lines 3 thru 9)	—	—	—	—
11	Maintenance				
12	Production	—	—	—	—
13	Transmission	—	—	—	—
14	Distribution	—	—	—	—
15	Administrative and General	—	—	—	—
16	TOTAL Maint. (Total of lines 12 thru 15)	—	—	—	—
17	Total Operation and Maintenance				
18	Production (Total of lines 3 and 12)	—	—	—	—
19	Transmission (Total of lines 4 and 13)	—	—	—	—
20	Distribution (Total of lines 5 and 14)	—	—	—	—
21	Customer Accounts (Line 6)	—	—	—	—
22	Customer Service and Informational (Line 7)	—	—	—	—
23	Sales (Line 8)	—	—	—	—
24	Administrative and General (Total of lines 9 and 15)	—	—	—	—
25	TOTAL Oper. and Maint. (Total of lines 18 thru 24)	—	—	—	—
26	Gas				
27	Operation				
28	Production - Manufactured Gas	—	—	—	—
29	Production - Nat. Gas (Including Expl. and Dev.)	—	—	—	—
30	Other Gas Supply	—	—	—	—
31	Storage, LNG Terminating and Processing	2,288,635	—	266,231	2,554,866
32	Transmission	549,526	—	70,650	620,176
33	Distribution	16,036,380	—	2,173,119	18,209,499
34	Customer Accounts	9,783,496	—	1,167,784	10,951,280
35	Customer Service and Informational	2,590,259	—	265,746	2,856,005
36	Sales	580,141	—	59,414	639,555
37	Administrative and General	22,403,474	—	2,414,834	24,818,308
38	TOTAL Operation (Total of lines 28 thru 37)	54,231,911	—	6,417,778	60,649,689
39	Maintenance				

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DISTRIBUTION OF SALARIES AND WAGES (continued)					
Classification (a)	Direct Payroll Distribution (b)	Payroll Billed by Affiliated Companies (c)	Allocation of Payroll Charged for Clearing Accounts (d)	Total (e)	Line No.
Production - Manufactured Gas	—	—	—	—	40
Production - Natural Gas	—	—	—	—	41
Other Gas Supply	—	—	—	—	42
Storage, LNG Terminating and Processing	600,852	21,395	73,913	696,160	43
Transmission	2,052,628	—	227,846	2,280,474	44
Distribution	7,356,797	—	871,774	8,228,571	45
Administrative and General	1,262,431	—	158,392	1,420,823	46
TOTAL Maint. (Total of lines 40 thru 46)	11,272,708	21,395	1,331,925	12,626,028	47
Gas (Continued)					48
Total Operation and Maintenance					49
Production - Manufactured Gas (Lines 28 and 40)	—	—	—	—	50
Production - Nat. Gas (Including Expl. and Dev.) (Lines 29 and 41)	—	—	—	—	51
Other Gas Supply (Lines 30 and 42)	—	—	—	—	52
Storage, LNG Terminating and Processing (Lines 31 and 43)	2,889,487	21,395	340,144	3,251,026	53
Transmission (Total of lines 32 and 44)	2,602,154	—	298,496	2,900,650	54
Distribution (Total of lines 33 and 45)	23,393,177	—	3,044,893	26,438,070	55
Customer Accounts (Total of line 34)	9,783,496	—	1,167,784	10,951,280	56
Customer Service and Informational (Total of line 35)	2,590,259	—	265,746	2,856,005	57
Sales (Total of line 36)	580,141	—	59,414	639,555	58
Administrative and General (Total of lines 37 and 46)	23,665,905	—	2,573,226	26,239,131	59
TOTAL Operation and Maintenance (Total of lines 50 thru 59)	65,504,619	21,395	7,749,703	73,275,717	60
Other Utility Departments					61
Operation and Maintenance	—	—	—	—	62
TOTAL All Utility Dept. (Total of lines 25,60, and 62)	65,504,619	21,395	7,749,703	73,275,717	63
Utility Plant					64
Construction (By Utility Departments)					65
Electric Plant	—	—	—	—	66
Gas Plant	36,267,802	21,438	3,030,336	39,319,576	67
Other	—	—	—	—	68
TOTAL Construction (Total of lines 66 thru 68)	36,267,802	21,438	3,030,336	39,319,576	69
Plant Removal (By Utility Departments)					70
Electric Plant	—	—	—	—	71
Gas Plant	—	—	—	—	72
Other	—	—	—	—	73
TOTAL Plant Removal (Total of lines 71 thru 73)	—	—	—	—	74
Other Accounts (Specify):					75
Merchandising	1,235,674	—	—	1,235,674	75.01
Governmental & Public Affairs	376,523	—	471,316	847,839	75.02
Utility Employee Salary & Wages - Charged to NNGFC	2,197	—	—	2,197	75.03
Utility Employee Salary & Wages - Charged to Gill Ranch	164,089	—	—	164,089	75.04
Utility Employee Salary & Wages - Charged to Gas Storage	648,432	—	—	648,432	75.05
Utility Employee Salary & Wages - Charged to Interstate Storage	753,946	—	—	753,946	75.06
Utility Employee Salary & Wages - Charged to Coos County	—	—	10,327	10,327	75.07
Utility Employee Salary & Wages - Charged to NWN Energy	17,713	—	—	17,713	75.08
Utility Employee Salary & Wages - Charged to Holdings	83,045	—	—	83,045	75.09
Utility Employee Salary & Wages - Charged to Water	20,674	—	—	20,674	75.10
TOTAL Other Accounts	3,302,293	—	481,643	3,783,936	76
TOTAL SALARIES AND WAGES	105,074,714	42,833	11,261,682	116,379,229	77

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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CHARGES FOR OUTSIDE PROFESSIONAL AND OTHER CONSULTATIVE SERVICES

1. Report the information specified below for all charges made during the year included in any account (including plant accounts) for outside consultative and other professional services. These services include rate, management, construction, engineering, research, financial, valuation, legal, accounting, purchasing, advertising, labor relations, and public relations, rendered for the respondent under written or oral arrangement, for which aggregate payments were made during the year to any corporation, partnership, organization of any kind, or individual (other than for services as an employee or for payments made for medical and related
- (a) Name of person or organization rendering services.
(b) Total charges for the year.
2. Sum under a description "Other" all of the aforementioned services amounting to \$250,000 or less.
3. Total under a description "Total", the total of all of the aforementioned services.
4. Charges for outside professional and other consultative services provided schedule.

Line No.	Description (a)	Amount (in Dollars) (b)
1	SNC-LAVALIN CONSTRUCTORS INC	25,127,917
2	LOY CLARK CONSTRUCTION	21,768,729
3	M10 INC	11,151,581
4	ANCHOR QEA LLC	8,557,706
5	COLORADO STRUCTURES INC	7,694,805
6	K & D SERVICES OF OREGON	4,464,723
7	SEVENSON ENVIRONMENTAL	3,538,789
8	LOCATING INC	3,788,601
9	HARDER MECHANICAL CONTRACTORS	2,980,626
10	CONNECTIVE DX INC	2,128,571
11	BROTHERS PIPELINE CORP	2,126,685
12	ACCENTURE LLP	1,945,678
13	MOORE EXCAVATION INC	1,855,301
14	STOEL RIVES LLP	1,715,657
15	PRICEWATERHOUSECOOPERS LLP	1,400,155
16	AIMS/PVIC	1,398,531
17	PEARL LEGAL GROUP PC	1,307,675
18	CREATIVE MEDIA DEVELOPMENT INC	1,202,708
19	COURTNEY & SON INC	1,121,307
20	BRIX PAVING	1,105,069
21	RAIMORE CONSTRUCTION LLC	1,070,563
22	GBD ARCHITECTS INCORPORATED	1,059,930
23	E C COMPANY	1,005,335
24	ROCKWELL AUTOMATION INC	993,292
25	ACF WEST CONSTRUCTION CO INC	980,289
26	SURVEYS & ANALYSIS INC	941,947
27	SLALOM LLC	886,540
28	TURNER CONSTRUCTION COMPANY	852,480
29	BESADVISORS LLC	845,614
30	G A W INC	824,123
31	NORWEST ENGINEERING INC	812,443
32	GEOENGINEERS INC	733,708
33	HAHN AND ASSOCIATES INC	692,598
34	PII NORTH AMERICA LLC	660,925
35	MACKAY SPOSITO	658,394
36	LRS ARCHITECTS INC	618,846
37	THE AUTOMATION GROUP INC	542,312
38	HARRIS GROUP INC	527,116
39	BIZTEK PEOPLE INC	510,186
40	INFOSYS LIMITED	507,720
41	ONLINE ENTERPRISES INC	496,438

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CHARGES FOR OUTSIDE PROFESSIONAL AND OTHER CONSULTATIVE SERVICES (Continued)		
Line No.	Description (a)	Amount (in Dollars) (b)
42	MCDOWELL RACKNER & GIBSON PC	478,384
43	REIMERS & JOLIVETTE INC	475,567
44	STANDARD UTILITY CONTRACTORS	465,807
45	JH KELLY LLC	448,991
46	MORGAN LEWIS & BOCKIUS LLP	435,730
47	INFINITY DIRECT	421,284
48	BASIC SYSTEMS INC	413,861
49	GENERAL UTILITIES CO	407,577
50	ALLEGRO DEVELOPMENT CORPORATIO	392,954
51	NORTHWEST STAFFING RESOURCES I	390,877
52	C-2 UTILITY CONTRACTORS LLC	376,736
53	FLUX RESOURCES LLC	373,116
54	ENERGY AND ENVIRONMENTAL ECONO	370,338
55	SNAIR EXCAVATING INC	365,625
56	QUALITY INTEGRATED SERVICES IN	364,961
57	ENDURO PIPELINE SERVICES INC	350,203
58	TEK SYSTEMS	339,238
59	OREGON WASHINGTON LABORATORIES	329,179
60	MAGNETO BRAND ADVERTISING	323,910
61	VESTA PARTNERS LLC	321,054
62	PUREHM US INC	296,752
63	ATTUNIX CORPORATION	287,200
64	NORDISK SYSTEMS INC	284,305
65	BAKER HUGHES OILFIELD OPERATIO	277,225
66	STRATEGIC BUSINESS SOLUTIONS L	270,083
67	ONE CALL CONCEPTS INC	264,241
68	JHI ENGINEERING INC	262,308
69	WESTLAKE CONSULTANTS INC	261,639
70	NRC ENVIRONMENTAL SERVICES INC	259,437
71	SECURITAS SECURITY SERVICES US	254,339
72	Other (Vendors < \$250k)	10,487,879
74	TOTAL	143,652,413

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Transactions with Associated (Affiliated) Companies

- Report below the information called for concerning all goods or services received from or provided to associated (affiliated) companies amounting to more than \$250,000.
- Sum under a description "Other", all of the aforementioned goods and services amounting to \$250,000 or less.
- Total under a description "Total", the total of all of the aforementioned goods and services.
- Where amounts billed to or received from the associated (affiliated) company are based on an allocation process, explain in a footnote the basis of the allocation.

Line No.	Description of the Goods or Service (a)	Name of Associated/Affiliated company (b)	Account(s) Charged or Credited (c)	Amounts Charged or Credited (d)
1	Goods or Services Provided to an Affiliated Company			
2	Labor - Salaries & Overhead	NW Natural Gas Storage LLC	Various	1,045,408
3	Labor - Salaries & Overhead	Gill Ranch Storage LLC	Various	246,994
4	Labor - Salaries & Overhead	Northwest Natural Holding Company	Various	159,379
5	Labor - Salaries & Overhead	NW Natural Water Company, LLC	Various	39,677
6	Other*	Various	Various	246,523
7	TOTAL			1,737,981
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15				
16				
17	Goods or Services Received from an Affiliated Company			
18	Labor - Salaries & Overhead	NW Natural Gas Storage LLC	Various	(236,331)
19	KB Pipeline Demand & Volumetric Charge	KB Pipeline Company	Various	(240,650)
20	Other	Various	Various	(7,919)
22	TOTAL			(484,900)
23				
24				
25				
26				
27				
28				
29				
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32				

See Affiliated Interest Report filed annually with the OPUC and the WUTC for information regarding affiliate allocations and billings.

*Includes 2018 indirect costs billed to affiliates based on the Massachusetts Method in accordance with our Cost Allocation Manual.

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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COMPRESSOR STATIONS

1. Report below details concerning compressor stations. Use the following subheading; field compressor stations, products extraction compressor stations, underground compressor stations, transmission compressor stations, distribution compressor stations, and other compressor stations.

2. For column (a), indicate the production areas where such stations are used. Group relatively small field compressor stations by production areas. Show the number of stations grouped. Identify any station held under a title other than full ownership. State in a footnote the name of owner or co-owner, the nature of respondent's title, and percent of ownership if jointly owned.

Line No.	Name of station and location (a)	Number of Units at Station (b)	Certificated Horsepower for Each Station (c)	Plant Cost (d)
1	Underground Storage Compressors:			
2	Miller Station, Mist, Oregon	4	14,500	41,878,498
3	(Fuel used is natural gas)			
4	Field Compressors: NON-UTILITY			
5	Molalla, Oregon	2	2,219	7,723,454
6	Deer Island, Oregon	1	1,680	2,774,898
7	(Fuel used is natural gas)			
8				
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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COMPRESSOR STATIONS (Continued)

Designate any station that was not operated during the past year. State in a footnote whether the book cost of such station has been retired in the books of account, or what disposition of the station and its book cost are contemplated. Designate any compressor units in transmission compressor stations installed and put into operation during the year and show in a footnote each unit's size and date the unit was placed in operation.

3. For Column (e), include the type of fuel or power, if other than natural gas. If two types of fuel or power are used, show separate entries for natural gas and the other fuel or Power.

Expenses (except depreciation and taxes) Fuel (e)	Expenses (except depreciation and taxes) Power (f)	Expenses (except depreciation and taxes) Other (g)	Gas for Compressor Fuel in Dth (h)	Electricity for Compressor Station kWh (i)	Operational Data Total Compressor Hours of Operation during the Year (j)	Operational Data Number of Compressor Operated at Time of Station Peak (k)	Date of Station Peak (l)	Line No.
								1
6,183	N/A	N/A	181,848	N/A	4,888	1	12/6/2018	2
								3
								4
2,026	N/A	N/A	731	N/A	4 *	N/A	N/A	5
60	N/A	N/A	24	N/A	2 *	N/A	N/A	6
								7
								8
								9
								10
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								25

Note: Fuel used by the compressors is added to the value of the inventory and expensed as a cost of gas when the inventory is withdrawn from storage.

* Deer Island and Molalla Gate were not run for production during the year. Both were used for maintenance purposes only.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS STORAGE PROJECTS

1. Report injections and withdrawals of gas for all storage projects used by respondent.

Line No.	Item (a)	Gas Belonging to Respondent (Dth) (b)	Gas Belonging to Others (Dth) (c)	Total Amount (Dth) (d)
	STORAGE OPERATIONS (in Dth)			
1	Gas Delivered to Storage			
2	January	—	—	—
3	February	—	—	—
4	March	298,908	—	298,908
5	April	17,887	—	17,887
6	May	377,059	—	377,059
7	June	932,360	—	932,360
8	July	630,434	—	630,434
9	August	404,239	—	404,239
10	September	870,070	—	870,070
11	October	50,051	—	50,051
12	November	1,179,913	—	1,179,913
13	December	101,959	—	101,959
14	TOTAL (Total of Lines 2 Thru 13)	4,862,880	—	4,862,880
15	Gas Withdrawn from Storage			
16	January	1,097,037	—	1,097,037
17	February	1,296,733	—	1,296,733
18	March	388,128	—	388,128
19	April	377,077	—	377,077
20	May	12,655	—	12,655
21	June	44,929	—	44,929
22	July	31,931	—	31,931
23	August	20,375	—	20,375
24	September	24,193	—	24,193
25	October	373,932	—	373,932
26	November	80,517	—	80,517
27	December	1,691,610	—	1,691,610
28	TOTAL (Total of lines 16 thru 27)	5,439,117	—	5,439,117

Note: Storage withdrawals shown above include Jackson Prairie activity, net of fuel (gas measure at the city gate.)

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS STORAGE PROJECTS

1. On line 4, enter the total storage capacity certificated by FERC.

2. Report total amount in Dth or other unit, as applicable on lines 2, 3, 4, 7. If quantity is converted from Mcf to Dth, provide conversion factor in a footnote.

Line No.	Item (a)	Total Amount (Dth) (b)
	STORAGE OPERATIONS	
1	Total of Working Gas End of Year	12,616,796
2	Cushion Gas (Including Native Gas)	7,999,385
3	Total Gas in Reservoir (Total of Line 1 and 2)	20,616,181
4	Certificated Storage Capacity	NA
5	Number of Injection - Withdrawal Wells (Mist only)	25
6	Number of Observation Wells (Mist only)	27
7	Maximum Day's Withdrawal from Storage (All Underground Storage)	299,718
8	Date of Maximum Days' Withdrawal	12/6/2018
9	LNG Terminal Companies	2
10	Number of Tanks	2
11	Capacity of Tanks (in Dth)	1,600,000
12	LNG Volumes	
13	Received at "Ship Rail"	—
14	Transferred to Tanks	641,922
15	Withdrawn from Tanks	591,788
16	"Boil Off" Vaporization Loss	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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TRANSMISSION LINES

1. Report below, by state, the total miles of transmission lines of each transmission system operated by respondent at end of year.
2. Report separately any lines held under a title other than full ownership. Designate such lines with an asterisk, in column (b) and in a footnote state the name of the owner, or co-owner, nature of respondent's title, and percent of ownership if jointly owned.
3. Report separately any line that was not operated during the past year. Enter in a footnote the details and state whether the book cost of such a line, or any portion thereof, has been retired in the books of account, or what disposition of the line and its book costs are contemplated.
4. Report the number of miles of pipe to one decimal point.

Line No.	Designation (Identification) of Line or Group of Lines (a)	* (b)	Total Miles of Pipe (c)
1	State of Oregon		657.0
2	State of Washington		3.5
3	State of Oregon - Kelso - Beaver	*	1.0
4	State of Washington - Kelso - Beaver	*	17.0
5	State of Oregon - Coos County Pipeline	**	76.8
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* Kelso-Beaver is owned 10% by NW Natural dba KB Pipeline Company 11% by US Gypsum Corp., and 79% by Portland General Electric (PGE); PGE is the operator.
 ** Coos County Pipeline is operated by NW Natural on behalf of Coos County.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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AUXILIARY PEAKING FACILITIES

1. Report below auxiliary facilities of the respondent for meeting seasonal peak demands on the respondent's system, such as underground storage projects, liquefied petroleum gas installations, gas liquefaction plants, oil gas sets, etc.

2. For column (c), for underground storage projects, report the delivery capacity on February 1 of the heating season overlapping the year-end for which this report is submitted. For other facilities, report the rated maximum daily delivery capacities.

3. For column (d), include or exclude (as appropriate) the cost of any plant used jointly with another facility on the basis of predominant use, unless the auxiliary peaking facility is a separate plant as contemplated by general instruction 12 of the Uniform System of Accounts.

Line No.	Location of Facility (a)	Type of Facility (b)	Maximum Daily Delivery Capacity of Facility (Dth) (c)	Cost of Facility (in dollars) (d)	Was Facility Operated on Day of Highest Transmission Peak Delivery
1	Portland, OR	LNG	120,000	26,076,595	No
2	Newport, OR	LNG	100,000	52,783,871	Yes
3	Mist, OR	Underground	520,000	143,921,283	Yes
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS ACCOUNT - NATURAL GAS

1. The purpose of this schedule is to account for the quantity of natural gas received and delivered by the respondent.
2. Natural gas means either natural gas unmixed or any mixture of natural and manufactured gas.
3. Enter in column (c) the Dth as reported in the schedules indicated for the items of receipts and deliveries.
4. Indicate in a footnote the quantities of bundled sales and transportation gas and specify the line on which such quantities are listed.
5. If the respondent operates two or more systems which are not interconnected, submit separate pages for this purpose. Use copies of pages 520.
6. Indicate by footnote the quantities of gas not subject to Commission regulation which did not incur FERC regulatory costs by showing (1) the local distribution volumes another jurisdictional pipeline delivered to the local distribution company portion of the reporting pipeline (2) the quantities that the reporting pipeline transported or sold through its local distribution facilities or intrastate facilities and which the reporting pipeline received through gathering facilities or intrastate facilities, but not through any of the interstate portion of the reporting pipeline, and (3) the gathering line quantities that were not destined for interstate market of that were not transported through any interstate portion of the reporting pipeline.
7. Indicate in a footnote the specific gas purchase expense account(s) and related to which the aggregate volumes reported on Line 3 relate.
8. Indicate in a footnote (1) the system supply quantities of gas that are stored by the reporting pipeline, during the reporting year and also reported as sales, transportation and compression volumes by the reporting pipeline during the same reporting year, (2) the system supply quantities of gas that are stored by the reporting pipeline during the reporting year which the reporting pipeline intends to sell or transport in a future reporting year, and (3) contract storage quantities.
9. Indicate the volumes of pipeline production field sales that are included in both the company's total sales figure and the company's total transportation figure. Add additional information as necessary to the footnotes.

Line No.	Item (a)	Ref. Page No. (b)	Total Amount of Dth (c)
1	NAME OF SYSTEM:		
2	GAS RECEIVED		
3	Gas Purchases (Accounts 800-805)		74,649,821
4	Gas of Others Received for Gathering (Account 489.1)	303	N/A
5	Gas of Others Received for Transmission (Account 489.2)	305	N/A
6	Gas of Others Received for Distribution (Account 489.3) Transportation	301	38,109,993
7	Gas of Others Received for Contract Storage (Account 489.4)	307	N/A
8	Gas of Other Received for Production/Extraction/Processing (Account 490 and 491)		N/A
9	Exchanged Gas Received from Others (Account 806)	328	N/A
10	Gas Received as Imbalances (Account 806)	328	N/A
11	Receipts of Respondent's Gas Transported by Others (Account 858)	332	N/A
12	Other Gas Withdrawn from Storage (Explain) Underground and LNG Storage	512	5,439,117
13	Gas Received from Shippers as Compressor Station Fuel		—
14	Gas Received from Shippers as Lost and Unaccounted for		—
15	Other Receipts (Specify) LPG		—
16	Total Receipts (Total of lines 3 thru 14)		118,198,931
17	GAS DELIVERED		
18	Gas Sales (Accounts 480-495)		74,710,294
19	Deliveries of Gas Gathered for Others (Account 489.1)	303	—
20	Deliveries of Gas Transported for Others (Account 489.2)	305	N/A
21	Deliveries of Gas Distributed for Others (Account 489.3) Transportation	301	38,109,993
22	Deliveries of Contract Storage Gas (Account 489.4)	307	N/A
23	Gas of Other Delivered for Production/Extraction/Processing (Account 490 and 491)		N/A
24	Exchange Gas Delivered to Others (Account 806)	328	N/A
25	Gas Delivered as Imbalances (Account 806)	328	N/A
26	Deliveries of Gas to Others for Transportation (Account 858)	332	N/A
27	Other Gas Delivered to Storage (Explain) Underground and LNG Storage	512	4,862,880
28	Gas Used for Compressor Station Fuel	331	181,848
29	Other Deliveries (Specify): Company Use	331	223,992
30	Total Deliveries (Total of lines 17 thru 27)		118,089,007
31	GAS LOSSES AND GAS UNACCOUNTED FOR		
32	Gas Losses and Gas Unaccounted For		109,924
33	TOTALS		
34	Total Deliveries, Gas Losses & Unaccounted for (Total of lines 30 and 32)		118,198,931

NORTHWEST NATURAL GAS COMPANY

Oregon Supplement to FERC Form 2

December 31, 2018

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ANNUAL REPORT
OREGON SUPPLEMENT TO FERC FORM 2
for
MULTI-STATE GAS COMPANIES

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3	Rent from Gas Property and Interdepartmental Rents
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10	Depreciation, Depletion, and Amortization of Gas Plant
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - STATEMENT OF INCOME FOR THE YEAR

Line No.	Account (a)	(REF.) PAGE NO. (b)	GAS UTILITY	
			Current Year (c)	Previous Year (d)
1	UTILITY OPERATING INCOME			
2	Operating Revenues (400)	2		
3	Operating Expenses			
4	Operation Expenses (401)	4-9		
5	Maintenance Expenses (402)	4-9		
6	Depreciation Expense (403)	10		
7	Amort. & Depl. of Utility Plant (404-405)	10		
8	Amort. of Utility Plant Acq. Adj. (406)	10		
9	Amort of Property Losses, Unrecovered Plant and Regulatory Study Costs (407)			
10	Amort. of Conversion Expenses (407)			
11	Taxes Other Than Income Taxes (408.1)	11		
12	Income Taxes - Federal (409.1)	12		
13	Income Taxes - Other (409.1)	13		
14	Provision for Deferred Income Taxes (410.1)	14-21		
15	(Less) Provision for Deferred Income Taxes-Cr. (411.1)	14-21		
16	Investment Tax Credit Adj. - Net (411.4)	22		
17	(Less) Gains from Disp. of Utility Plant (411.6)			
18	Losses from Disp. of Utility Plant (411.7)			
19	TOTAL Utility Operating Expenses (Total of lines 4 thru 18)			
20	Net Utility Operating income (Enter Total of line 2 less 19)			

SEE FERC ANNUAL REPORT PAGES 114-116

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - GAS OPERATING REVENUES (Account 400)

Line No.	Account (a)	OPERATING REVENUES		Dth of NATURAL GAS SOLD		AVG. NO. OF NAT. GAS CUSTOMERS PER MO.	
		Current Year (b)	Previous Year (c)	Current Year (d)	Previous Year (e)	Current Year (f)	Previous Year (g)
1	GAS SERVICE REVENUES						
2	480 Residential Sales	362,316,051	407,614,445	36,293,699	41,086,200	598,016	588,986
3	481 Commercial and Industrial Sales						
4	Small or Commercial	183,740,605	209,945,511	22,812,491	25,197,832	61,199	60,682
5	Large or Industrial	37,291,202	42,224,400	8,149,773	8,619,074	1,094	1,085
6	482 Other Sales to Public Authorities	—	—	—	—	—	—
7	484 Interdepartmental Sales	—	—	—	—	—	—
8	TOTAL Sales to Ultimate Consumers	583,347,858	659,784,356	67,255,963	74,903,106	660,309	650,753
9	483 Sales for Resale	—	—	—	—	—	—
10	TOTAL Nat. Gas Service Revenues	583,347,858	659,784,356	67,255,963	74,903,106	660,309	650,753
11	Revenues from Manufactured Gas	—	—				
12	TOTAL Gas Service Revenues	583,347,858	659,784,356				
13	OTHER OPERATING REVENUES						
14	485 Intercompany Transfers	—	—				
15	487 Late Payment Charge	1,926,634	2,103,742				
16	488 Misc. Service Revenues	1,277,135	1,021,925				
17	489 Rev. From Trans. of Gas of Others	19,420,265	17,987,262				
18	490 Sales of Prod. Ext. from Natural Gas	—	—				
19	491 Rev. from Nat. Gas Proc. by Others	—	—				
20	492 Incidental Gasoline and Oil Sales	—	—				
21	493 Rent from Gas Property	180,948	225,739				
22	494 Interdepartmental Rents	—	—				
23	495 Other Gas Revenues	(2,556,867)	(2,752,049)				
24	TOTAL Other Operating Revenues	20,248,115	18,586,618				
25	TOTAL Gas Operating Revenues	603,595,973	678,370,974				
26	(Less) 496 Provision for Rate Refunds	—	—				
27	TOTAL Gas Operating Revenues Net of Provision for refund	603,595,973	678,370,974				
28	Dist. Type Sales by State (Incl. Main Line Sales to Resid. and Comm. Custrs.)	546,056,656	617,559,956	—			
29	Main Line Industrial Sales (Incl. Main Line Sales to Pub. Authorities)	37,291,202	42,224,400	—			
30	Sales for Resale	—	—	—			
31	Other Sales to Pub. Auth. (Local Dist. Only)	—	—	—			
32	Interdepartmental Sales	—	—	—			
33	TOTAL (Same as Line 10, Columns (b) and (d))	583,347,858	659,784,356	67,255,963			

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - INTERDEPARTMENTAL SALES - NATURAL GAS (Account 484)
Report particulars concerning sales of natural gas included in Account 484

LINE NO.	DEPARTMENT AND BASIS OF CHARGES (a)	POINT OF DELIVERY (b)	MCF (14.73 psia at 60° F) (c)	REVENUE (d)
NOT APPLICABLE				

RENT FROM GAS PROPERTY AND INTERDEPARTMENTAL RENTS (Accounts 493, 494)

- Report particulars concerning rents received, included in Accounts 493 and 494.
- Minor rents may be entered at the total amount for each class of such rents.
- If rents are included which were arrived at under an arrangement for apportioning expenses of a joint facility, whereby the amount included in this account represents profit or return on property, depreciation, and taxes, give particulars and the basis of apportionment of such charges to Account 493 or 494.
- Provide a subheading and total for each account.

LINE NO.	NAME OF LESSEE OR DEPARTMENT (Designate associated companies) (a)	DESCRIPTION OF PROPERTY (b)	AMOUNT OF REVENUE FOR YEAR	
			NATURAL GAS PROPERTY (c)	MANUFACTURED GAS PROPERTY (d)
ACCOUNT 493 - RENT FROM GAS PROPERTY				
1	City of Portland	CNG Meter Rental	207,445	
2	Other	Communication and other	180,948	
			388,393	

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STATE OF OREGON ALLOCATED - GAS OPERATION AND MAINTENANCE EXPENSES			
If the amount for previous year is not derived from previously reported figures, explain in footnotes.			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
1	1. PRODUCTION EXPENSES		
2	A. Manufactured Gas Production		
3	Manufactured Gas Production (Detail Page 4A)	—	—
4	B. Natural Gas Production		
5	B1. Natural Gas Production and Gathering		
6	Operation		
7	750 Operation Supervision and Engineering	—	—
8	751 Production Maps and Records	—	—
9	752 Gas Wells Expenses	—	—
10	753 Field Lines Expenses	—	—
11	754 Field Compressor Station Expenses	—	—
12	755 Field Compressor Station Fuel and Power	—	—
13	756 Field Measuring and Regulating Station Expenses	—	—
14	757 Purification Expenses	—	—
15	758 Gas Well Royalties	SEE FERC ANNUAL REPORT PAGES 317-325	
16	759 Other Expenses	—	—
17	760 Rents	—	—
18	TOTAL Operation (Total of lines 7 thru 17)	—	—
19	Maintenance		
20	761 Maintenance Supervision and Engineering	—	—
21	762 Maintenance of Structures and Improvements	—	—
22	763 Maintenance of Producing Gas Wells	—	—
23	764 Maintenance of Field Lines	—	—
24	765 Maintenance of Field Compressor Station Equipment	—	—
25	766 Maintenance of Field Meas. and Regulating Station Equipment	—	—
26	767 Maintenance of Purification Equipment	—	—
27	768 Maintenance of Drilling and Cleaning Equipment	—	—
28	769 Maintenance of Other Equipment	—	—
29	TOTAL Maintenance (Total of lines 20 thru 28)	—	—
30	TOTAL Natural Gas Production and Gathering (Total of lines 18 and 29)	—	—
31	B2. Products Extraction		
32	Operation		
33	770 Operation Supervision and Engineering	—	—
34	771 Operation Labor	—	—
35	772 Gas Shrinkage	—	—
36	773 Fuel	—	—
37	774 Power	—	—
38	775 Materials	—	—
39	776 Operation Supplies and expenses	—	—
40	777 Gas Processed by Others	—	—
41	778 Royalties on Products Extracted	—	—
42	779 Marketing expenses	—	—
43	780 Products Purchased for Resale	—	—
44	781 Variation in Products Inventory	—	—
45	(Less) 782 Extracted Products Used by the Utility-Credit	—	—
46	783 Rents	—	—
47	Total Operation (Total of Lines 33 thru 46)	—	—

Name of Respondent	This Report is:	Date of Report	Year of Report
Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

STATE OF OREGON ALLOCATED - GAS OPERATION AND MAINTENANCE EXPENSES (Con't)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
48	Maintenance		
49	784 Maintenance Supervision and Engineering	—	—
50	785 Maintenance of Structures and Improvements	—	—
51	786 Maintenance of Extraction and Refining Equipment	—	—
52	787 Maintenance of Pipe Lines	—	—
53	788 Maintenance of Extracted Products Storage Equipment	—	—
54	789 Maintenance of Compressor Equipment	SEE FERC ANNUAL REPORT PAGES 317-325	
55	790 Maintenance of Gas Measuring and Regulating Equipment	—	—
56	791 Maintenance of Other Equipment	—	—
57	TOTAL Maintenance (Total of lines 49 thru 56)	—	—
58	TOTAL Products Extraction (Total of lines 47 and 57)	—	—
59	C. Exploration and Development		
60	Operation		
61	795 Delay Rentals	—	—
62	796 Nonproductive Well Drilling	—	—
63	797 Abandoned Leases	—	—
64	798 Other Exploration	—	—
65	TOTAL Exploration and Development (Total of lines 61 thru 64)	—	—
66	D. Other Gas Supply Expenses		
67	Operation		
68	800 Natural Gas Well Head Purchases	—	—
69	800.1 Natural Gas Well Head Purchases, Intracompany Transfers	—	—
70	801 Natural Gas Field Line Purchases	—	—
71	802 Natural Gas Gasoline Plant Outlet Purchases	—	—
72	803 Natural Gas Transmission Line Purchases	—	—
73	804 Natural Gas City Gate Purchases	—	—
74	804.1 Liquefied Natural Gas Purchases	—	—
75	805 Other Gas Purchases	—	—
76	(Less) 805.1 Purchases Gas Cost Adjustments	—	—
77	TOTAL Purchased Gas (Total of Lines 68 thru 76)	—	—
78	806 Exchange Gas	—	—
79	Purchased Gas Expense		
80	807.1 Well Expense-Purchased Gas	—	—
81	807.2 Operation of Purchased Gas Measuring Stations	—	—
82	807.3 Maintenance of Purchased Gas Measuring Stations	—	—
83	807.4 Purchased Gas Calculations Expense	—	—
84	807.5 Other Purchased Gas Expenses	—	—
85	TOTAL Purchased Gas Expense (Total of lines 80 thru 84)	—	—
86	808.1 Gas Withdrawn from Storage-Debit	—	—
87	(Less) 808.2 Gas Delivered to Storage-Credit	—	—
88	809.1 Withdrawals of Liquefied Natural Gas for Processing-Debit	—	—
89	(Less) 809.2 Deliveries of Natural Gas for Processing-Credit	—	—
90	Gas used in Utility Operation-Credit		
91	810 Gas Used for Compressor Station Fuel-Credit	—	—
92	811 Gas Used for Products Extraction-Credit	—	—
93	812 Gas Used for Other Utility Operations-Credit	—	—
94	TOTAL Gas Used in Utility Operations-Credit (lines 91 thru 93)	—	—
95	813 Other Gas Supply Expenses	—	—
96	TOTAL Other Gas Supply Exp. (Total of lines 77, 78, 85, 86-89, 94, 95)	—	—
97	TOTAL Production Expenses (Total of lines 3, 30, 58, 65, 96)	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON ALLOCATED - GAS OPERATION AND MAINTENANCE EXPENSES (Con't)

Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
98	2. NATURAL GAS STORAGE, TERMINALING AND PROCESSING EXPENSES		
99	A. Underground Storage Expenses		
100	Operation		
101	814 Operation Supervision and Engineering	—	—
102	815 Maps and Records	—	—
103	816 Well Expenses	—	—
104	817 Lines Expenses	—	—
105	818 Compressor Station Fuel and Power	SEE FERC ANNUAL REPORT PAGES 317-325	
106	819 Compressor Station Fuel and Power	—	—
107	820 Measuring and Regulating Station Expenses	—	—
108	821 Purification Expenses	—	—
109	822 Exploration and Development	—	—
110	823 Gas Losses	—	—
111	824 Other Expenses	—	—
112	825 Storage Well Royalties	—	—
113	826 Rents	—	—
114	TOTAL Operation (Total of lines of 101 thru 113)	—	—
115	Maintenance		
116	830 Maintenance Supervision and Engineering	—	—
117	831 Maintenance of Structures and Improvements	—	—
118	832 Maintenance of Reservoirs and Wells	—	—
119	833 Maintenance of Lines	—	—
120	834 Maintenance of Compressor Station Equipment	—	—
121	835 Maintenance of Measuring and Regulating Station Equip.	—	—
122	836 Maintenance of Purification Equipment	—	—
123	837 Maintenance of Other Equipment	—	—
124	TOTAL Maintenance (Total of lines 116 thru 123)	—	—
125	TOTAL Underground Storage Expenses (lines 114 and 124)	—	—
126	B. Other Storage Expenses		
127	Operation		
128	840 Operation supervision and Engineering	—	—
129	841 Operation Labor and Expenses	—	—
130	842 Rents	—	—
131	842.1 Fuel	—	—
132	842.2 Power	—	—
133	842.3 Gas Losses	—	—
134	TOTAL Operation (Total of lines 128 thru 133)	—	—
135	Maintenance		
136	843.1 Maintenance Supervision and Engineering	—	—
137	843.2 Maintenance of Structures and Improvements	—	—
138	843.3 Maintenance of Gas Holders	—	—
139	843.4 Maintenance of Purification Equipment	—	—
140	843.5 Maintenance of Liquefaction Equipment	—	—
141	843.6 Maintenance of Vaporizing Equipment	—	—
142	843.7 Maintenance of Compressor Equipment	—	—
143	843.8 Maintenance of Measuring and Regulating Equipment	—	—
144	843.9 Maintenance of Other Equipment	—	—
145	TOTAL Maintenance (Total of lines 136 thru 144)	—	—
146	TOTAL Other Storage Expenses (Total of lines 134 and 145)	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON ALLOCATED - GAS OPERATION AND MAINTENANCE EXPENSES (Con't)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
147	C. Liquefied Natural Gas Terminaling and Processing Expenses		
148	Operation		
149	844.1 Operation Supervision and Engineering	—	—
150	844.2 LNG Processing Terminal Labor and Expenses	—	—
151	844.3 Liquefaction Processing Labor and Expenses	—	—
152	844.4 Liquefaction Transportation Labor and Expenses	—	—
153	844.5 Measuring and Regulating Labor and Expenses	SEE FERC ANNUAL REPORT PAGES 317-325	
154	844.6 Compressor Station Labor and Expenses	—	—
155	844.7 Communication system Expenses	—	—
156	844.8 System Control and Load Dispatching	—	—
157	845.1 Fuel	—	—
158	845.2 Power	—	—
159	845.3 Rents	—	—
160	845.4 Demurrage Charges	—	—
161	(Less) 845.5 Wharfage Receipts-Credit	—	—
162	845.6 Processing Liquefied of Vaporized Gas by Others	—	—
163	846.1 Gas Losses	—	—
164	846.2 Other Expenses	—	—
165	TOTAL Operation (Total of lines 149 thru 164)	—	—
166	Maintenance		
167	847.1 Maintenance Supervision and Engineering	—	—
168	847.2 Maintenance of Structures and Improvements	—	—
169	847.3 Maintenance of LNG Processing Terminal Equipment	—	—
170	847.4 Maintenance of LNG Transportation Equipment	—	—
171	847.5 Maintenance of Measuring and Regulating Equipment	—	—
172	847.6 Maintenance of Compressor Station Equipment	—	—
173	847.7 Maintenance of Communication Equipment	—	—
174	847.8 Maintenance of Other Equipment	—	—
175	TOTAL Maintenance (Total of lines 167 thru 174)	—	—
176	TOTAL Liquefied Nat Gas Terminaling and Proc Exp (Total of lines 165 & 175)	—	—
177	TOTAL Natural Gas Storage (Total of lines 125, 146, and 176)	—	—
178	3. TRANSMISSION EXPENSES		
179	Operation		
180	850 Operation Supervision and Engineering	—	—
181	851 System Control and Load Dispatching	—	—
182	852 Communication system Expenses	—	—
183	853 Compressor Station Labor and Expenses	—	—
184	854 Gas for Compressor Station Fuel	—	—
185	855 Other Fuel and Power for Compressor Stations	—	—
186	856 Mains Expenses	—	—
187	857 Measuring and Regulating Station Expenses	—	—
188	858 Transmission and Compression of Gas by Others	—	—
189	859 Other Expenses	—	—
190	860 Rents	—	—
191	TOTAL Operations (Total of lines 180 thru 190)	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON ALLOCATED - GAS OPERATION AND MAINTENANCE EXPENSES (Con't)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
192	Maintenance		
193	861 Maintenance Supervision and Engineering	—	—
194	862 Maintenance of Structures and Improvements	—	—
195	863 Maintenance of Mains	—	—
196	864 Maintenance of Compressor Station Equipment	—	—
197	865 Maintenance of Measuring and Regulating Station Equipment	—	—
198	866 Maintenance of Communication Equipment	—	—
199	867 Maintenance of Other Equipment	SEE FERC ANNUAL REPORT PAGES 317-325	
200	TOTAL Maintenance (Total of lines 193 thru 199)	—	—
201	TOTAL Transmission Expenses (Total of lines 191 and 200)	—	—
202	4. DISTRIBUTION EXPENSES		
203	Operation		
204	870 Operation Supervision and Engineering	—	—
205	871 Distribution Load Dispatching	—	—
206	872 Compressor Station Labor and Expenses	—	—
207	873 Compressor Station Fuel and Power	—	—
208	874 Mains and Services Expenses	—	—
209	875 Measuring and Regulating Station Expenses-General	—	—
210	876 Measuring and Regulating Station Expenses-Industrial	—	—
211	877 Measuring and Regulating Station Expenses-City Gas	—	—
212	878 Meter and House Regulator Expenses	—	—
213	879 Customer Installations Expenses	—	—
214	880 Other Expenses	—	—
215	881 Rents	—	—
216	TOTAL Operations (Total of lines 204 thru 215)	—	—
217	Maintenance		
218	885 Maintenance Supervision and Engineering	—	—
219	886 Maintenance of Structures and Improvements	—	—
220	887 Maintenance of Mains	—	—
221	888 Maintenance of Compressor Station Equipment	—	—
222	889 Maintenance of Measuring & Regulating Station Equipment-General	—	—
223	890 Maintenance of Meas. and Reg. Station Equipment-Industrial	—	—
224	891 Maintenance of Meas & Reg Station Equip-City Gate	—	—
225	892 Maintenance of Services	—	—
226	893 Maintenance of Meters and House Regulators	—	—
227	894 Maintenance of Other Equipment	—	—
228	TOTAL Maintenance (Total of lines 218 thru 227)	—	—
229	TOTAL Distribution Expenses (Total of lines 216 and 228)	—	—
230	5. CUSTOMER ACCOUNTS EXPENSES		
231	Operation		
232	901 Supervision	—	—
233	902 Meter Reading Expenses	—	—
234	903 Customer Records and Collection Expenses	—	—
235	904 Uncollectible Accounts	—	—
236	905 Miscellaneous Customer Accounts Expenses	—	—
237	TOTAL Customer Accounts Expenses (Total of lines 232-236)	—	—
238	6. CUSTOMER SERVICE AND INFORMATIONAL EXPENSE		
239	Operation		
240	907 Supervision	—	—
241	908 Customer Assistance Expense	—	—
242	909 Informational and Instructional Expenses	—	—
243	910 Miscellaneous Customer Service and Informational Expenses	—	—
244	TOTAL Customer Service & Information Expenses (Total of lines 240 thru 243)	—	—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON ALLOCATED - GAS OPERATION AND MAINTENANCE EXPENSES (Con't)			
Line No.	Account (a)	Amount for Current Year (b)	Amount for Previous Year (c)
245	7. SALES EXPENSES		
246	Operation		
247	911 Supervision	—	—
248	912 Demonstration and Selling Expenses	—	—
249	913 Advertising Expenses	—	—
250	916 Miscellaneous Sales Expenses	SEE FERC ANNUAL REPORT PAGES 317-325	
251	TOTAL Sales Expenses (Total of lines 247 thru 250)	—	—
252	8. ADMINISTRATIVE AND GENERAL EXPENSES		
253	Operation		
254	920 Administrative and General Salaries	—	—
255	921 Office Supplies and Expenses	—	—
256	(Less) 922 Administrative Expenses Transferred - Credit	—	—
257	923 Outside Services Employed	—	—
258	924 Property Insurance	—	—
259	925 Injuries and Damages (See Note 1 Below)	—	—
260	926 Employee Pensions and Benefits	—	—
261	927 Franchise Requirements	—	—
262	928 Regulatory Commission Expenses	—	—
263	(Less) 929 Duplicate Charges - Credit	—	—
264	930.1 General Advertising Expenses	—	—
265	930.2 Miscellaneous General Expenses	—	—
266	931 Rents	—	—
267	TOTAL Operation (Total of lines 254 thru 266)	—	—
268	Maintenance		
269	935 Maintenance of General Plant	—	—
270	TOTAL Administrative and General Expenses (Total of lines 267 and 269)	—	—
271	TOTAL Gas O & M Expenses (Total of lines 97,177, 201, 229, 237, 244, 251, and 270)	—	—

STATE OF OREGON ALLOCATED - GAS OPERATION AND MAINTENANCE EXPENSES				
Line No.	FUNCTIONAL CLASSIFICATIONS (a)	OPERATION (b)	MAINTENANCE (c)	TOTAL (d)
272	Production			
273	Manufactured Gas			
274	Natural gas:			
275	Production and Gathering			
276	Products Extraction			
277	Exploration and Dev.			
278	TOTAL Natural Gas	INFORMATION NOT AVAILABLE		
279	Other Gas Supply Expenses	SEE FERC ANNUAL REPORT PAGES 317-325		
280	TOTAL Production			
281	Underground Storage			
282	Other Storage			
283	LNG Terminaling and Processing			
284	Transmission Expenses			
285	Distribution Expenses			
286	Customer Accounts Expenses			
287	Customer Service and Informational Expenses			
288	Sales Expenses			
289	Adm. and General Expenses			
290	TOTAL Gas O. & M. Expenses			

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED DEPRECIATION, DEPLETION, AND AMORTIZATION OF GAS PLANT
(Account 403, 404.1, 404.2, 404.3, 405)
(Except Amortization of Acquisitions Adjustments)

Report the amounts of depreciation expense, depletion and amortization for the accounts indicated and classify according to the plant functional groups shown.

Line No.	FUNCTIONAL CLASSIFICATION (a)	DEPRECIATION EXPENSE (ACCOUNT 403) (b)	AMORTIZATION & DEPLETION OF PRODUCING NATURAL GAS LAND & LAND RIGHTS (ACCOUNT 404.1) (c)	AMORTIZATION OF UNDERGROUND STORAGE LAND & LAND RIGHTS (ACCOUNT 404.2) (d)	AMORTIZATION OF OTHER LIMITED-TERM GAS PLANT (ACCOUNT 404.3) (e)	AMORTIZATION OF OTHER GAS PLANT (ACCOUNT 405) (f)	TOTAL (g)
1	Intangible Plant						
2	Production Plant, Manufactured Gas						
3	Production and Gathering Plant, Natural Gas	N/A - See SITUS schedule at OR 30					
4	Products Extraction Plant						
5	Underground Gas Storage Plant						
6	Other Storage Plant						
7	Base Load LNG Terminaling and Processing Plant						
8	Transmission Plant						
9	Distribution Plant						
10	General Plant						
11	Common Plant - Gas						
12							
13							
14							
15							
16							
17							
18							
19	TOTAL						

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED TAXES, OTHER THAN INCOME TAXES (Account 408.1)		
Line No.	KIND OF TAX (a)	AMOUNT (b)
	SEE FERC ANNUAL REPORT PAGES 262a - 263b	
	TOTAL (Must agree with page 1, line 11)	

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**STATE OF OREGON - ALLOCATED CALCULATION OF CURRENT FEDERAL INCOME TAX EXPENSE
(Account 409.1)**

1. Report amounts used to derive current Federal income tax expense, Account 409.1, for the reporting period. If amounts are shown in thousands, show (000) in the heading for column (b).
2. Show amounts increasing taxable income as positive values and amounts decreasing taxable income as negative.
3. Current tax expense on this schedule must match the amount reported on page 1, line 12 of this report. Separately identify adjustments arising from revisions of prior year accruals.
4. Minor amounts of other additions (subtractions) may be grouped.

Line No.	PARTICULARS (Details) (a)	AMOUNT (b)
1	Gas Operating Revenues	
2	Operations and Maintenance Expenses	
3	Taxes, Other than Income	
4	State Income (Excise) Tax	
5	Interest	
6	Federal Income Tax Depreciation	
7	Other Additions (Subtractions) to Derive Taxable Income	
8		
9		
10		
11		
12		
13		
14	SEE FERC ANNUAL REPORT	
15	PAGE 261	
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27	Federal Tax Net Income	
28	Show Computation of Tax:	

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**STATE OF OREGON - ALLOCATED CALCULATION OF CURRENT FEDERAL INCOME TAX EXPENSE
(Account 409.1)**

1. Report amounts used to derive current Federal income tax expense, Account 409.1, for the reporting period. If amounts are shown in thousands, show (000) in the heading for column (b).
2. Show amounts increasing taxable income as positive values and amounts decreasing taxable income as negative.
3. Current tax expense on this schedule must match the amount reported on page 1, line 13 of this report. Separately identify adjustments arising from revisions of prior year accruals.
4. Minor amounts of other additions (subtractions) may be grouped.

Line No.	PARTICULARS (Details) (a)	AMOUNT (b)
1	Gas Operating Revenues	
2	Operations and Maintenance Expenses	
3	Taxes, Other than Income	
4	Interest	
5	State Income (Excise) Tax Depreciation	
6	Other Additions (Subtractions) to Derive Taxable Income	
7		
8		
9		
10		
11		
12		
13		
14	SEE FERC ANNUAL REPORT	
15	PAGE 261	
16		
17		
18		
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22		
23		
24		
25		
26		
27	Federal Tax Net Income	
28	Show Computation of Tax:	

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 190)

1. Report the information called for below concerning the respondent's accounting for deferred income taxes.
2. In the space provided:
- (a) identify, by amount and classification, significant items for which deferred taxes are being provided.
- (b) indicate insignificant amounts under Other.

Line No.	ACCOUNT SUBDIVISIONS (a)	BALANCE BEGINNING OF YEAR (b)	CHANGES DURING THE YEAR	
			AMOUNTS DEBITED ACCOUNT 410.1 (c)	AMOUNTS CREDITED ACCOUNT 410.1 (d)
1	Electric			
2				
3				
4				
5				
6				
7	Other			
8	TOTAL ELECTRIC			
9				
10				
11				
12				
13				
14				
15	Other			
16	TOTAL GAS			
17	Other (Specify)			
18	TOTAL (ACCOUNT 190)			
19	Classification of Totals			
20	Federal Income Tax			
21	State Income Tax			
22	Local Income Tax			

NOT APPLICABLE

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 190) (Con't)

3. Beginning balance may be omitted if not readily available. Report gas utility deferred taxes only.

4. Use separate pages as required.

CHANGES DURING THE YEAR		ADJUSTMENTS				BALANCE END OF YEAR (k)	Line No.
AMOUNTS DEBITED ACCOUNT 410.2 (e)	AMOUNTS CREDITED ACCOUNT 410.2 (f)	DEBITS		CREDITS			
		ACCT. NO. (g)	AMOUNT (h)	ACCT. NO. (i)	AMOUNT (j)		
							1
							2
							3
							4
							5
							6
							7
							8
							9
							10
							11
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NOT APPLICABLE

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 281)

1. Report the information called for below concerning the respondent's accounting for deferred income taxes relating to amortizable property.
2. In the space provided:
 - (a) identify, by amount and classification, significant items for which deferred taxes are being provided.
 - (b) indicate insignificant amounts under Other.
 - (c) Date amortization for tax purposes commenced.
 - (d) "Normal" depreciation rate used in computing the deferred tax.

Line No.	ACCOUNT (a)	BALANCE BEGINNING OF YEAR (b)	CHANGES DURING THE YEAR	
			AMOUNTS DEBITED ACCOUNT 410.1 (c)	AMOUNTS CREDITED ACCOUNT 410.1 (d)
1	Accelerated Amortization (Account 281)			
2	Electric			
3	Defense Facilities			
4	Pollution Control Facilities			
5	Other			
6				
7				
8	TOTAL Electric (Total of lines 3 thru 7)			
9	Gas			
10	Defense Facilities			
11	Pollution Control Facilities			
12	Other			
13				
14				
15	TOTAL Gas (Total of lines 10 thru 14)			
16	Gas (Specify)			
17	TOTAL (Acct 281) Total of 8, 15 & 16)			
18	Classification of TOTAL			
19	Federal Income Tax			
20	State Income Tax			
21	Local Income Tax			

NOT APPLICABLE

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 281) (Con't)

(e) Tax rate used originally defer amounts and the tax rate used during the current year to amortize previous deferrals.
 3. Beginning balance may be omitted if not readily available. Report gas utility deferred taxes only.
 4. Use separate pages as required.

CHANGES DURING THE YEAR		ADJUSTMENTS				BALANCE END OF YEAR (k)	Line No.
AMOUNTS DEBITED ACCOUNT 410.2 (e)	AMOUNTS CREDITED ACCOUNT 410.2 (f)	DEBITS		CREDITS			
		ACCT. NO. (g)	AMOUNT (h)	ACCT. NO. (i)	AMOUNT (j)		
							1
							2
							3
							4
							5
							6
							7
							8
							9
							10
							11
							12
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							20
							21

NOT APPLICABLE

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 282)

1. Report the information called for below concerning the respondent's accounting for deferred income taxes relating to property not subject to accelerated amortization.

2. In the space provided:

- (a) State the general method or methods of liberalized depreciation being used (sum-of-year digits, declining balance, etc.)
- (b) Estimated lives (i.e. useful life, guideline life, guideline class life, etc.)
- (c) Classes of plant to which each method is being applied and date method was adopted.

Line No.	ACCOUNT SUBDIVISIONS (a)	BALANCE BEGINNING OF YEAR (b)	CHANGES DURING THE YEAR	
			AMOUNTS DEBITED ACCOUNT 410.1 (c)	AMOUNTS CREDITED ACCOUNT 410.1 (d)
1	Account 282			
2	Electric			
3	Gas			
4	Other			
5	TOTAL (Total of lines 2 thru 4)			
6	Other (Specify)			
7				
8				
9	TOTAL (Acct 282) (Total of 5 thru 8)			
10	Classification of TOTAL			
11	Federal Income Tax			
12	State Income Tax			
13	Local Income Tax			

NOT APPLICABLE

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 282) (Con't)

3. Beginning balance may be omitted if not readily available. Report gas utility deferred taxes only.

4. Use separate pages as required.

CHANGES DURING THE YEAR		ADJUSTMENTS				BALANCE END OF YEAR (k)	Line No.
AMOUNTS DEBITED ACCOUNT 410.2 (e)	AMOUNTS CREDITED ACCOUNT 410.2 (f)	DEBITS		CREDITS			
		ACCT. NO. (g)	AMOUNT (h)	ACCT. NO. (i)	AMOUNT (j)		
							1
							2
							3
							4
							5
							6
							7
							8
							9
							10
							11
							12
							13

NOT APPLICABLE

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 283)

1. Report the information called for below concerning the respondent's accounting for deferred income taxes relating to amounts recorded in Account 283.
 2. In the space provided below include amounts relating to insignificant items under Other.

Line No.	ACCOUNT SUBDIVISIONS (a)	BALANCE BEGINNING OF YEAR (b)	CHANGES DURING THE YEAR	
			AMOUNTS DEBITED ACCOUNT 410.1 (c)	AMOUNTS CREDITED ACCOUNT 410.1 (d)
1	Account 283			
2	Electric			
3				
4				
5				
6				
7				
8	Other			
9	TOTAL Electric (Total of 2 thru 8)			
10	Gas			
11				
12				
13				
14				
15				
16	Other			
17	TOTAL Gas (Total of lines 10 thru 16)			
18	Other (Specify)			
19	TOTAL (Acct 283) (Total of 9, 17, & 18)			
20	Classification of TOTAL			
21	Federal Income Tax			
22	State Income Tax			
23	Local Income Tax			

**SEE ANNUAL REPORT
PAGES 276 - 277**

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INCOME TAXES (Account 283) (Con't)

3. Beginning balance may be omitted if not readily available. Report gas utility deferred taxes only.

4. Use separate pages as required.

CHANGES DURING THE YEAR		ADJUSTMENTS				BALANCE END OF YEAR (k)	Line No.
AMOUNTS DEBITED ACCOUNT 410.2 (e)	AMOUNTS CREDITED ACCOUNT 410.2 (f)	DEBITS		CREDITS			
		ACCT. NO. (g)	AMOUNT (h)	ACCT. NO. (i)	AMOUNT (j)		
							1
							2
							3
							4
							5
							6
							7
							8
							9
							10
							11
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							23

**SEE ANNUAL REPORT
PAGES 276 - 277**

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERRED INVESTMENT TAX CREDITS (Account 255)

Report below information applicable to Account 255. Explain by footnote any correction to the account balance shown in column (g). Include in column (l) the average period over which the tax credits are amortized.

Line No.	ACCOUNT (a)	BALANCE BEGINNING OF YEAR (b)	DEFERRED FOR YEAR		ALLOCATION TO CURRENT YEAR'S INCOME		ADJUSTMENTS (g)	BALANCE END OF YEAR (h)
			ACCOUNT NO. (c)	AMOUNT (d)	ACCOUNT NO. (e)	AMOUNT (f)		
1								
2								
3								
4								
5								
6								
7								
8								
9	NONE							
10								
11								
12								
13								
14								
15								
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30								
31								
32								
33								

NOTES

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED DEFERED INVESTMENT TAX CREDITS (Account 255)

Report below information applicable to Account 255. Explain by footnote any correction to the account balance shown in column (g). Include in column (l) the average period over which the tax credits are amortized.

Line No.	ACCOUNT (a)	BALANCE BEGINNING OF YEAR (b)	DEFERRED FOR YEAR		ALLOCATION TO CURRENT YEAR'S INCOME		BALANCE END OF YEAR (g)	AVERAGE PERIOD OF ALLOCATION TO INCOME (h)
			ACCOUNT NO. (c)	AMOUNT (d)	ACCOUNT NO. (e)	AMOUNT (f)		
1	Gas Utility							
2	3%							
3	4%							
4	7%							
5	10%							
6	TOTAL							
7	Other (List separately and show 3%, 4%, 7% , 10% and TOTAL							
8								
9								
10								
11								
12								
13	NONE							
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**STATE OF OREGON - SITUS UTILITY PLANT
SUMMARY OF UTILITY PLANT AND ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION
AND DEPLETION**

Line No.	ITEM (a)	TOTAL (b)	ELECTRIC (c)	GAS (d)	OTHER (SPECIFY) (e)	OTHER (SPECIFY) (f)	COMMON (g)
1	UTILITY PLANT						
2	In Service						
3	Plant in Service (Classified)	2,425,984,206		2,425,984,206			
4	Property Under Capital Leases	—		—			
5	Plant Purchased or Sold	—		—			
6	Completed Construction not Classified	390,105,693		390,105,693			
7	Experimental Plant Unclassified	—		—			
8	TOTAL (Enter total of lines 3 thru 7)	2,816,089,899		2,816,089,899			
9	Leased to Others	—		—			
10	Held for Future Use	970,068		970,068			
11	Construction Work in Progress	204,137,610		204,137,610			
12	Acquisition Adjustments	—		—			
13	TOTAL Utility Plant (Enter total of lines 8 thru 12)	3,021,197,577		3,021,197,577			
14	Accum. Prov. for Depr., Amort., & Depl.	1,236,948,492		1,236,948,492			
15	Net Utility Plant (Line 13 less 14)	1,784,249,085		1,784,249,085			
16	DETAIL OF ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION						
17	In Service:						
18	Depreciation	1,188,893,535		1,188,893,535			
19	Amort. and Depl. of Producing Natural Gas Land and Land Rights	—		—			
20	Amort. of Underground Storage Land and Land Rights	30,436		30,436			
21	Amort. of Other Utility Plant	81,139,031		81,139,031			
21.01	Salvage Work In Progress	—		—			
21.02	Less Removal Work in Progress	33,114,510		33,114,510			
22	TOTAL in Service (Lines 18 thru 21)	1,236,948,492		1,236,948,492			
23	Leased to Others						
24	Depreciation	—		—			
25	Amortization and Depletion	—		—			
26	TOTAL Leased to Others (Lines 24 and 25)	—		—			
27	Held for Future Use						
28	Depreciation	—		—			
29	Amortization	—		—			
30	TOTAL Held for Future Use (Lines 28 and 29)	—		—			
31	Abandonment of Leases (Natural Gas)	—		—			
32	Amort. of Plant Acquisition Adjustment	—		—			
33	TOTAL Accumulated Provisions (Should agree with line 14 above) (Lines 22, 26, 30, 31, and 32)	1,236,948,492		1,236,948,492			

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - SITUS GAS PLANT IN SERVICE

1. Report below the original cost of gas plant in service according to the prescribed accounts.
2. In addition to Account 101, *Gas Plant in Service (Classified)*, this page and the next include Account 102, *Gas Plant Purchased or Sold*; Account 103, *Experimental Gas Plant Unclassified*; and Account 106, *Completed Construction Not Classified-Gas*.
3. Include in column (c) or (d), as appropriate, corrections of additions and retirements for the current or preceding year.
4. Enclose in parentheses credit adjustments of plant accounts to indicate the negative effect of such accounts.
5. Classify Account 106 according to prescribed accounts, on an estimated basis if necessary, and include the entries in column (c). Also to be included in column (c) are entries for reversals of tentative distributions or prior year reported in column (b). Likewise, if the respondent has a significant amount of plant retirements which have not been classified to primary accounts at the end of the year, include in column (d) a tentative distribution of such retirements, on Estimated basis, with appropriate contra entry to the account for accumulated depreciation provision. Include also in column (d) reversals of tentative distributions of prior year unclassified retirements. Attach supplemental statement showing the account distributions of these tentative classifications in column (c) and (d), including the reversals of the prior years tentative account distributions of these amounts. Careful observance of the above instructions and the texts of Accounts 101 and 106 will avoid serious omissions of the reported amount of respondent's plant actually in service at the end of year.
6. Show in column (f) reclassifications or transfers within utility plant accounts. Include also in column (f) the additions or reductions of primary account classifications arising from distribution of amounts initially recorded in Account 102. In showing the clearance of Account 102, include in column (e) the amounts with respect to accumulated provision for depreciation, acquisition adjustments, etc., and show in column (f) only the offset to the debits or credits distributed in column (f) to primary account classifications.
7. For Account 399, state the nature and use of plant included in this account and if substantial in amount, submit a supplementary statement showing subaccount classification of such plant conforming to the requirements of these pages.
8. For each amount comprising the reported balance and changes in Account 102, state the property purchased or sold, name of vendor or purchaser, and date of transaction. If proposed journal entries have been filed with the Commission as required by the Uniform System of Accounts, give also date of such filing.

SEE FOLLOWING PAGES

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class	Beginning					Ending
FERC Plant Account	Balance	Additions	Retirements	Transfers	Adjustments	Balance*
UTILITY						
Intangible Plant						
301 ORGANIZATION	852	—	—	—	—	852
302 FRANCHISES & CONSENTS	83,496	—	—	—	—	83,496
303.1 COMPUTER SOFTWARE	67,997,562	11,892,216	—	—	—	79,889,778
303.2 CUSTOMER INFORMATION SYSTEM	30,488,305	—	—	—	—	30,488,305
303.3 INDUSTRIAL & COMMERCIAL BIL	4,146,951	—	—	—	—	4,146,951
303.4 CRMS	682,893	—	—	—	—	682,893
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—
Intangible Plant Subtotal*	103,400,059	11,892,216	—	—	—	115,292,274
Production Plant - Oil Gas						
304.1 LAND	24,998	—	—	—	—	24,998
305.2 P P O G STRU & IMPR-SEWER S	—	—	—	—	—	—
305.5 P P O G STRU & IMPR-OTHER Y	13,156	—	—	—	—	13,156
312.3 P P O G FUEL HANDLING AND S	—	—	—	—	—	—
318.3 P P O G LIGHT OIL REFINING	144,896	—	—	—	—	144,896
318.5 P P O G TAR PROCESSING	243,551	—	—	—	—	243,551
325 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—
327 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
328 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—
331 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
332 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
333 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
334 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—
Production Plant - Oil Gas Subtotal*	426,601	—	—	—	—	426,601
Production Plant - Other						
305.11 GAS PRODUCTION - COTTAGE G	8,320	—	—	—	—	8,320
305.17 STRUCTURES MIXING STATION	46,587	—	—	—	—	46,587
311 P P OTHER-LIQUEFIED PETROLE	—	—	—	—	—	—
311.4 P P OTHER-L P G GRANGER	—	—	—	—	—	—
311.7 LIQUIFIED GAS EQUIPMENT COO	4,033	—	—	—	—	4,033
311.8 LIQUIFIED GAS EQUIPMENT LIN	4,209	—	—	—	—	4,209
319 GAS MIXING EQUIPMENT GASCO	185,448	—	—	—	—	185,448
Production Plant - Other Subtotal*	248,597	—	—	—	—	248,597

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Balance	Additions	Retirements	Transfers	Adjustments	Ending Balance*
UTILITY						
Natural Gas Underground Storage						
350.1 LAND	106,549	—	—	—	—	106,549
350.2 RIGHTS-OF-WAY	109,625	—	—	—	—	109,625
351 STRUCTURES AND IMPROVEMENTS	7,382,069	1,249,794	—	—	—	8,631,863
352 WELLS	20,047,076	3,214,738	—	—	—	23,261,814
352.1 STORAGE LEASEHOLD & RIGHTS	3,938,491	—	—	—	—	3,938,491
352.2 RESERVOIRS	7,272,553	—	—	—	—	7,272,553
352.3 NON-RECOVERABLE NATURAL GAS	6,440,890	—	—	—	—	6,440,890
353 LINES	6,552,220	722,493	—	—	—	7,274,713
354 COMPRESSOR STATION EQUIPMENT	31,352,716	—	—	—	—	31,352,716
355 MEASURING / REGULATING EQUIPM	7,408,127	—	—	—	—	7,408,127
356 PURIFICATION EQUIPMENT	297,363	66,243	—	—	—	363,606
357 OTHER EQUIPMENT	1,332,029	1,025,666	—	—	—	2,357,694
Natural Gas Underground Storage Subtotal*	92,239,708	6,278,933	—	—	—	98,518,641
Local Storage Plant						
360.11 LAND - LNG LINNTON	83,598	—	—	—	—	83,598
360.12 LAND - LNG NEWPORT	536,675	—	—	—	—	536,675
360.2 LAND - OTHER	106,557	—	—	—	—	106,557
361.11 STRUCTURES & IMPROVEMENTS	5,068,838	5,530,913	—	—	—	10,599,751
361.12 STRUCTURES & IMPROVEMENTS	10,013,761	1,914,526	—	—	—	11,928,288
361.2 STRUCTURES & IMPROVEMENTS -	26,757	—	—	—	—	26,757
362.11 GAS HOLDERS - LNG LINNTON	4,556,064	—	—	—	—	4,556,064
362.12 GAS HOLDERS - LNG NEWPORT	5,927,104	—	—	—	—	5,927,104
362.2 GAS HOLDERS - LNG OTHER	1,600	—	—	—	—	1,600
363.11 LIQUEFACTION EQUIP. - LINN	3,308,902	10,509	—	—	—	3,319,411
363.12 LIQUEFACTION EQUIP. - NEWPO	10,725,181	4,858,270	—	—	—	15,583,451
363.21 VAPORIZING EQUIP - LINNTON	4,458,618	—	—	—	—	4,458,618
363.22 VAPORIZING EQUIP - NEWPORT	3,739,813	—	—	—	—	3,739,813
363.31 COMPRESSOR EQUIP - LINNTON	180,903	—	—	—	—	180,903
363.32 COMPRESSOR EQUIPMENT - NE	4,366,715	256,596	—	—	—	4,623,311
363.41 MEASURING & REGULATING EQU	2,451,772	426,476	—	—	—	2,878,248
363.42 MEASURING & REGULATING EQU	10,289,895	155,335	—	—	—	10,445,230
363.5 CNG REFUELING FACILITIES	3,051,295	—	—	—	—	3,051,295
363.6 LNG REFUELING FACILITIES	739,473	—	—	—	—	739,473
Local Storage Plant Subtotal*	69,633,523	13,152,626	—	—	—	82,786,149

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018
 Period Ending: December 2018

Functional Class		Beginning					Ending
FERC Plant Account		Balance	Additions	Retirements	Transfers	Adjustments	Balance*
UTILITY							
Transmission Plant							
365.1	LAND	89,772	925,825	—	—	—	1,015,597
365.2	LAND RIGHTS	6,455,177	—	—	—	—	6,455,177
366.3	STRUCTURES & IMPROVEMENTS -	1,546,073	—	—	—	—	1,546,073
367	MAINS	153,411,899	14,839,479	—	—	—	168,251,378
367.21	NORTH MIST TRANSMISSION LI	1,994,582	—	—	—	—	1,994,582
367.22	SOUTH MIST TRANSMISSION LI	14,949,264	—	—	—	—	14,949,264
367.23	SOUTH MIST TRANSMISSION LI	34,881,341	—	—	—	—	34,881,341
367.24	11.7M S MIST TRANS LINE	17,466,182	—	—	—	—	17,466,182
367.25	12M NORTH S MIST TRANS	18,613,651	—	—	—	—	18,613,651
367.26	38M NORTH S MIST TRANS	68,232,676	—	—	—	—	68,232,676
368	TRANSMISSION COMPRESSOR	—	—	—	—	—	—
369	MEASURING & REGULATE STATION	3,969,549	—	—	—	—	3,969,549
370	COMMUNICATION EQUIPMENT	—	—	—	—	—	—
	Transmission Plant Subtotal*	321,610,166	15,765,304	—	—	—	337,375,470
Distribution Plant							
374.1	LAND	75,384	—	—	—	—	75,384
374.2	LAND RIGHTS	1,856,083	2,386	—	—	—	1,858,469
375	STRUCTURES & IMPROVEMENTS	49,372	83,178	—	—	—	132,550
376.11	MAINS < 4"	511,553,123	17,284,834	(188,079)	—	—	528,649,878
376.12	MAINS 4" & >	458,745,242	22,938,908	(354,674)	—	—	481,329,477
377	COMPRESSOR STATION EQUIPMENT	818,380	—	—	—	—	818,380
378	MEASURING & REG EQUIP - GENER	32,180,018	1,420,052	—	—	—	33,600,070
379	MEASURING & REG EQUIP - GATE	9,593,207	2,644,346	—	—	—	12,237,553
380	SERVICES	697,685,242	29,658,081	(1,693,476)	—	2,017	725,651,865
381	METERS	77,008,191	5,210,137	(1,484,557)	—	—	80,733,771
381.1	METERS (ELECTRONIC)	1,696,938	—	—	—	—	1,696,938
381.2	ERT (ENCODER RECEIVER TRANS	36,183,943	2,716,566	(979,937)	—	—	37,920,573
382	METER INSTALLATIONS	54,588,289	3,654,800	(2,573,052)	—	—	55,670,037
382.1	METER INSTALLATIONS (ELECTR	481,020	—	—	—	—	481,020
382.2	ERT INSTALLATION (ENCODER	8,361,220	—	(119,240)	—	—	8,241,980
383	HOUSE REGULATORS	1,797,700	258,706	—	—	—	2,056,406
386	OTHER PROPERTY ON CUSTOMERS P	1,100,432	61,678	—	—	—	1,162,110
386.1	MULTI-FAMILY METER ROOMS	—	141,536	—	—	—	141,536
387.1	CATHODIC PROTECTION TESTING	173,859	—	—	—	—	173,859
387.2	CALORIMETERS @ GATE STATIONS	69,794	—	—	—	—	69,794
387.3	METER TESTING EQUIPMENT	72,671	—	—	—	—	72,671
	Distribution Plant Subtotal*	1,894,090,110	86,075,208	(7,393,014)	—	2,017	1,972,774,321

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Balance	Additions	Retirements	Transfers	Adjustments	Ending Balance*
UTILITY						
General Plant						
389 LAND	9,609,258	—	—	—	—	9,609,258
390 STRUCTURES & IMPROVEMENTS	58,793,603	11,102,624	—	—	—	69,896,227
390.1 SOURCE CONTROL PLANT	18,607,094	3,553	—	—	—	18,610,647
391.1 OFFICE FURNITURE & EQUIPMEN	11,463,582	359,001	(3,704,724)	—	—	8,117,859
391.2 COMPUTERS	26,375,380	7,170,248	(6,416,184)	—	—	27,129,445
391.3 ON SITE BILLING	—	—	—	—	—	—
391.4 CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—
392 TRANSPORTATION EQUIPMENT	41,986,770	5,725,924	(1,541,208)	—	—	46,171,485
393 STORES EQUIPMENT	119,406	—	—	—	—	119,406
394 TOOLS - SHOP & GARAGE EQUIPUI	11,771,671	1,247,893	—	—	—	13,019,565
395 LABORATORY EQUIPMENT	68,293	—	(68,016)	—	—	277
396 POWER OPERATED EQUIPMENT	9,816,215	1,761,066	(506,942)	—	—	11,070,339
397 GEN PLANT-COMMUNICATION EQU	88,322	—	—	—	—	88,322
397.1 MOBILE	475,621	54,370	(475,621)	—	—	54,370
397.2 OTHER THAN MOBILE & TELEMET	1,690,854	—	(1,680,896)	—	—	9,958
397.3 TELEMETERING - OTHER	4,611,216	—	(2,790,980)	—	—	1,820,236
397.4 TELEMETERING - MICROWAVE	2,852,797	—	(497,290)	—	—	2,355,508
397.5 TELEPHONE EQUIPMENT	490,767	—	—	—	—	490,767
398 GEN PLANT-MISCELLANEOUS EQU	—	—	—	—	—	—
398.1 PRINT SHOP	83,249	—	(78,890)	—	—	4,359
398.2 KITCHEN EQUIPMENT	12,812	—	—	—	—	12,812
398.3 JANITORIAL EQUIPMENT	14,873	—	—	—	—	14,873
398.4 INSTALLED IN LEASED BUILDINGS	5,393	—	—	—	—	5,393
398.5 OTHER MISCELLANEOUS EQUIPMENT	66,739	—	—	—	—	66,739
General Plant Subtotal*	199,003,915	27,424,679	(17,760,750)	—	—	208,667,844
Utility Property Grand Total*	2,680,652,679	160,588,966	(25,153,764)	—	2,017	2,816,089,898

* May not foot due to rounding.

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Balance	Additions	Retirements	Transfers	Adjustments	Ending Balance*
NON-UTILITY						
Intangible Plant						
303.1 COMPUTER SOFTWARE	163,357	—	—	—	—	163,357
303.2 CUSTOMER INFORMATION SYSTEM	61,429	—	—	—	—	61,429
Non Utility Intangible Plant Subtotal*	224,786	—	—	—	—	224,786
Natural Gas Underground Storage						
352 WELLS	16,940,451	—	—	—	—	16,940,451
352.1 STORAGE LEASEHOLD & RIGHTS	1,020	—	—	—	—	1,020
352.2 RESERVOIRS	3,561,501	—	—	—	—	3,561,501
353 LINES	1,649,744	639,665	—	—	—	2,289,408
354 COMPRESSOR STATION EQUIPMENT	13,299,843	—	—	—	837	13,300,680
355 MEASURING / REGULATING EQUIPM	8,876,730	369,595	—	—	—	9,246,325
357 OTHER EQUIPMENT	63,256	—	—	—	—	63,256
Non Utility Natural Gas Underground Storage Subtotal*	44,392,546	1,009,259	—	—	838	45,402,642
Transmission Plant						
368 TRANSMISSION COMPRESSOR	7,723,454	—	—	—	—	7,723,454
Non Utility Transmission Plant Subtotal*	7,723,454	—	—	—	—	7,723,454
Distribution Plant						
376.12 MAINS 4" & >	878,618	—	—	—	—	878,618
Non Utility Distribution Plant Subtotal*	878,618	—	—	—	—	878,618
General Plant						
389 LAND	438,739	—	—	—	—	438,739
390 STRUCTURES & IMPROVEMENTS	238,469	837	—	—	—	239,306
Non Utility General Plant Subtotal*	677,208	837	—	—	—	678,045

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class		Beginning					Ending
FERC Plant Account		Balance	Additions	Retirements	Transfers	Adjustments	Balance*
NON-UTILITY							
Non Utility Other							
121.1	NON-UTIL PROP-DOCK	1,946,033	—	—	—	—	1,946,033
121.2	NON-UTIL PROP-LAND	125,102	—	—	—	—	125,102
121.3	NON-UTIL PROP-OIL ST	4,635,180	—	—	—	—	4,635,180
121.7	NON-UTIL PROP-APPL CENTER	64,906	—	—	—	—	64,906
121.8	NON-UTIL PROP-STORAGE	96,038	—	—	—	—	96,038
Non Utility	Other*	6,867,259	—	—	—	—	6,867,259
Non Utility Property Grand Total*		60,763,871	1,010,096	—	—	837	61,774,804

* May not foot due to rounding.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - SITUS GAS PLANT HELD FOR FUTURE USE (Account 105)

1. Report separately each property held for future use at end of the year having an original cost of \$100,000 or more. Other items of property held for future use may be grouped provided that the number of properties so grouped is indicated.

2. For property having an original cost of \$100,000 or more previously used in utility operations, now held for future use, give in addition to other required information, the date that utility use of such property was discontinued, and the date the original was transferred to Account 105.

Line No.	DESCRIPTION AND LOCATION OF PROPERTY (a)	DATE ORIGINALLY INCLUDED IN THIS ACCOUNT (b)	DATE EXPECTED (c)	BALANCE END OF YEAR (d)
1	Underground Storage	07/2009	Undetermined	127,921
2	Easement	11/2011	Undetermined	136,720
3	Willamette River Crossing - Engineering Costs	05/2015	Undetermined	705,427
4				
5				
6				
7				
8				
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19				
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23				
24				
25				
26				
27				
28				
29				
30	TOTALS			970,068

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - SITUS CONSTRUCTION WORK IN PROGRESS - GAS (Account 107)

- Report below descriptions and balances at end of year of projects in process of construction (Account 107)
- Show items relating to "research, development, and demonstration" projects last, under a caption Research, Development, and Demonstration (see Account 107 of the Uniform System of Accounts).
- Minor projects (less than \$1,000,000) may be grouped.

Line No.	DESCRIPTION OF PROJECT (a)	CONSTRUCTION WORK IN PROGRESS - GAS (ACCOUNT 107) (b)	ESTMATED ADDITIONAL COST OF PROJECT (c)
1	North Mist Expansion Project	130,427,721	18,571,616
2	Misc IS Projects	17,372,758	17,503,537
3	Other	16,611,978	7,158,756
4	Mains and Service Jobs	10,411,840	20,845,450
5	Misc Facilities Projects	2,178,330	1,942,659
6	Portland LNG Readiness	669,992	2,654,028
7	Newport LNG Readiness	417,920	5,685,217
8	HQ Building ⁽¹⁾	26,047,071	See Note (1)
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
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27			
28			
29			
30	TOTALS	204,137,610	74,361,263

(1) The balance at 12/31/18 represented the cost of the build-to-suit of NW Natural's new corporate headquarters. The current accounting for leases requires us to record these costs as NW Natural was determined to be the accounting owner. New accounting guidance in 2019 removed this accounting classification and as such the asset above and its associated liability will be derecognized.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - SITUS ACCUMULATED PROVISION FOR DEPRECIATION OF GAS UTILITY PLANT (Account 108)
1. Explain in a footnote any important adjustments during year. 2. Explain in a footnote any difference between the amount for book cost of plant retired, line 11, column (c), and that reported for gas plant in service pages 24-27, column (d), excluding retirements of non-depreciable property. 3. The provisions of Account 108 of the Uniform System of Accounts require that retirements of depreciable plant be recorded when such plant is removed from service. If the respondent has a significant amount of plant retired at year end which has not been recorded and/or classified to the various reserve functional classifications, make preliminary closing entries to tentatively functionalize the book cost of the plant retired. In addition, include all costs included in retirement work in progress at year end in the appropriate functional classifications. 4. Show separately interest credits under a sinking fund or similar method of depreciation accounting.
SEE FOLLOWING PAGES

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
Intangible Plant								
301 ORGANIZATION	—	—	—	—	—	—	—	—
302 FRANCHISES & CONSENTS	—	—	—	—	—	—	—	—
303.1 COMPUTER SOFTWARE	26,057,620	3,411,690	—	—	—	—	—	29,469,310
303.2 CUSTOMER INFORMATION SYSTEM	30,485,095	—	—	—	—	—	—	30,485,095
303.3 INDUSTRIAL & COMMERCIAL BIL	4,146,951	—	—	—	—	—	—	4,146,951
303.4 CRMS	682,893	—	—	—	—	—	—	682,893
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—	—	—
Intangible Plant Subtotal*	61,372,559	3,411,690	—	—	—	—	—	64,784,249
Production Plant - Oil Gas								
304.1 LAND	—	—	—	—	—	—	—	—
305.2 P P O G STRU & IMPR-SEWER S	—	—	—	—	—	—	—	—
305.5 P P O G STRU & IMPR-OTHER Y	13,814	—	—	—	—	—	—	13,814
312.3 P P O G FUEL HANDLING AND S	—	—	—	—	—	—	—	—
318.3 P P O G LIGHT OIL REFINING	152,141	—	—	—	—	—	—	152,141
318.5 P P O G TAR PROCESSING	255,729	—	—	—	—	—	—	255,729
325 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—	—	—
327 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
328 NATURAL GAS PROD AND GATHER	—	—	—	—	—	—	—	—
331 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
332 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
333 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
334 NATURAL GAS PROD & GATHERIN	—	—	—	—	—	—	—	—
Production Plant - Oil Gas Subtotal*	421,683	—	—	—	—	—	—	421,683
Production Plant - Other								
305.11 GAS PRODUCTION - COTTAGE G	8,736	—	—	—	—	—	—	8,736
305.17 STRUCTURES MIXING STATION	51,246	—	—	—	—	—	—	51,246
311 P P OTHER-LIQUEFIED PETROLE	—	—	—	—	—	—	—	—
311.4 P P OTHER-L P G GRANGER	—	—	—	—	—	—	—	—
311.7 LIQUIFIED GAS EQUIPMENT COO	8,066	—	—	—	—	—	—	8,066
311.8 LIQUIFIED GAS EQUIPMENT LIN	6,585	—	—	—	—	—	—	6,585
319 GAS MIXING EQUIPMENT GASCO	194,720	—	—	—	—	—	—	194,720
Production Plant - Other Subtotal*	269,353	—	—	—	—	—	—	269,353

RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS

NW NATURAL

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve
UTILITY								
Natural Gas Underground Storage								
350.1 LAND	—	—	—	—	—	—	—	—
350.2 RIGHTS-OF-WAY	28,695	1,741	—	—	—	—	—	30,436
351 STRUCTURES AND IMPROVEMENTS	2,789,826	134,489	—	—	—	—	—	2,924,316
352 WELLS	11,805,512	450,171	—	—	—	—	—	12,255,683
352.1 STORAGE LEASEHOLD & RIGHTS	1,670,417	74,963	—	—	—	—	—	1,745,379
352.2 RESERVOIRS	2,530,955	142,784	—	—	—	—	—	2,673,739
352.3 NON-RECOVERABLE NATURAL GAS	3,440,885	117,761	—	—	—	—	—	3,558,645
353 LINES	3,176,072	138,657	—	—	—	—	—	3,314,729
354 COMPRESSOR STATION EQUIPMENT	18,729,797	800,020	—	—	—	—	—	19,529,817
355 MEASURING / REGULATING EQUIPM	4,583,709	161,989	—	—	—	—	—	4,745,697
356 PURIFICATION EQUIPMENT	232,445	7,591	—	—	—	—	—	240,036
357 OTHER EQUIPMENT	857,756	42,605	—	—	—	—	—	900,361
Natural Gas Underground Storage Subtotal*	49,846,067	2,072,772	—	—	—	—	—	51,918,839
Local Storage Plant								
360.11 LAND - LNG LINNTON	—	—	—	—	—	—	—	—
360.12 LAND - LNG NEWPORT	—	—	—	—	—	—	—	—
360.2 LAND - OTHER	—	—	—	—	—	—	—	—
361.11 STRUCTURES & IMPROVEMENTS	2,440,507	319,901	—	—	—	—	—	2,760,407
361.12 STRUCTURES & IMPROVEMENTS	2,278,225	343,807	—	—	—	—	—	2,622,032
361.2 STRUCTURES & IMPROVEMENTS -	11,425	467	—	—	—	—	—	11,891
362.11 GAS HOLDERS - LNG LINNTON	2,343,855	108,814	—	—	—	—	—	2,452,669
362.12 GAS HOLDERS - LNG NEWPORT	5,735,573	158,352	—	—	—	—	—	5,893,926
362.2 GAS HOLDERS - LNG OTHER	1,213	20	—	—	—	—	—	1,234
363.11 LIQUEFACTION EQUIP. - LINN	2,561,759	87,116	—	—	—	—	—	2,648,875
363.12 LIQUEFACTION EQUIP - NEWPO	7,149,990	92,264	—	—	—	—	—	7,242,254
363.21 VAPORIZING EQUIP - LINNTON	2,396,494	55,510	—	—	—	—	—	2,452,004
363.22 VAPORIZING EQUIP - NEWPORT	290,733	22,029	—	—	—	—	—	312,762
363.31 COMPRESSOR EQUIP - LINNTON	206,897	—	—	—	—	—	—	206,897
363.32 COMPRESSOR EQUIPMENT - NE	553,366	231,307	—	—	—	—	—	784,673
363.41 MEASURING & REGULATING EQU	610,581	19,747	—	—	—	—	—	630,328
363.42 MEASURING & REGULATING EQU	190,155	61,423	—	—	—	—	—	251,578
363.5 CNG REFUELING FACILITIES	1,392,264	39,769	—	—	—	—	—	1,432,033
363.6 LNG REFUELING FACILITIES	739,473	—	—	—	—	—	—	739,473
Local Storage Plant Subtotal*	28,902,511	1,540,526	—	—	—	—	—	30,443,037

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
Transmission Plant								
365.1 LAND	—	—	—	—	—	—	—	—
365.2 LAND RIGHTS	2,008,335	118,022	—	—	—	—	—	2,126,357
366.3 STRUCTURES & IMPROVEMENTS -	329,124	29,633	—	—	—	—	—	358,757
367 MAINS	32,404,168	4,513,201	—	—	—	—	—	36,917,368
367.21 NORTH MIST TRANSMISSION LI	1,129,936	47,429	—	—	—	—	—	1,177,365
367.22 SOUTH MIST TRANSMISSION LI	10,669,024	346,007	—	—	—	—	—	11,015,031
367.23 SOUTH MIST TRANSMISSION LI	13,688,539	888,735	—	—	—	—	—	14,577,274
367.24 11.7M S MIST TRANS LINE	5,724,229	433,372	—	—	—	—	—	6,157,601
367.25 12M NORTH S MIST TRANS	5,793,077	465,256	—	—	—	—	—	6,258,333
367.26 38M NORTH S MIST TRANS	21,421,198	1,699,818	—	—	—	—	—	23,121,017
368 TRANSMISSION COMPRESSOR	(9)	—	—	—	—	—	—	(9)
369 MEASURING & REGULATE STATION	1,551,358	102,740	—	—	—	—	—	1,654,098
370 COMMUNICATION EQUIPMENT	—	—	—	—	—	—	—	—
Transmission Plant Subtotal*	94,718,978	8,644,214	—	—	—	—	—	103,363,192
Distribution Plant								
374.1 LAND	—	—	—	—	—	—	—	—
374.2 LAND RIGHTS	1,539,062	117,784	—	—	—	—	—	1,656,846
375 STRUCTURES & IMPROVEMENTS	49,924	213	—	—	—	—	—	50,136
376.11 MAINS < 4"	287,421,562	12,997,224	(188,079)	(933,720)	40,352	—	—	299,337,339
376.12 MAINS 4" & >	195,761,663	11,188,344	(354,674)	(726,072)	37,044	—	—	205,906,305
377 COMPRESSOR STATION EQUIPMENT	649,465	17,691	—	—	—	—	—	667,156
378 MEASURING & REG EQUIP - GENER	11,368,995	702,150	—	—	—	—	—	12,071,145
379 MEASURING & REG EQUIP - GATE	1,708,055	427,605	—	—	—	—	—	2,135,660
380 SERVICES	373,083,170	19,405,163	(1,693,476)	(2,015,825)	—	19	—	388,779,050
381 METERS	20,358,390	1,835,002	(1,484,557)	—	—	—	—	20,708,835
381.1 METERS (ELECTRONIC)	1,653,033	291,035	—	—	—	—	—	1,944,068
381.2 ERT (ENCODER RECEIVER TRANS	16,808,280	2,425,456	(979,937)	—	—	—	—	18,253,800
382 METER INSTALLATIONS	5,690,273	1,529,270	(2,573,052)	—	—	—	—	4,646,491
382.1 METER INSTALLATIONS (ELECTR	63,514	16,478	—	—	—	—	—	79,992
382.2 ERT INSTALLATION (ENCODER	4,802,308	515,022	(119,240)	—	—	—	—	5,198,090
383 HOUSE REGULATORS	256,940	57,163	—	—	—	—	—	314,102
386 OTHER PROPERTY ON CUSTOMERS P	—	141,299	—	—	—	—	—	141,299
386.1 MULTI-FAMILY METER ROOMS	—	901	—	—	—	—	—	901
387.1 CATHODIC PROTECTION TESTING	142,388	1,034	—	—	—	—	—	143,422
387.2 CALORIMETERS @ GATE STATIONS	69,794	—	—	—	—	—	—	69,794
387.3 METER TESTING EQUIPMENT	72,671	—	—	—	—	—	—	72,671
Distribution Plant Subtotal*	921,499,486	51,668,833	(7,393,014)	(3,675,617)	77,396	19	—	962,177,103

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
General Plant								
389	LAND	437,351	—	—	—	—	—	437,351
390	STRUCTURES & IMPROVEMENTS	10,574,957	1,227,507	—	—	—	—	11,802,464
390.1	SOURCE CONTROL PLANT	4,138,257	880,897	—	—	—	—	5,019,153
391.1	OFFICE FURNITURE & EQUIPMEN	8,188,251	813,149	(3,704,724)	—	—	—	5,296,676
391.2	COMPUTERS	16,217,939	4,896,182	(6,416,184)	—	—	—	14,697,937
391.3	ON SITE BILLING	—	—	—	—	—	—	—
391.4	CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—	—
392	TRANSPORTATION EQUIPMENT	9,502,772	2,315,191	(1,541,208)	—	251,821	—	10,528,576
393	STORES EQUIPMENT	119,406	—	—	—	—	—	119,406
394	TOOLS - SHOP & GARAGE EQUIPUI	4,171,412	783,827	—	—	11,262	—	4,966,501
395	LABORATORY EQUIPMENT	68,293	(2)	(68,016)	—	—	—	275
396	POWER OPERATED EQUIPMENT	2,690,056	239,623	(506,942)	—	136,469	—	2,559,206
397	GEN PLANT-COMMUNICATION EQU	40,199	6,826	—	—	—	—	47,025
397.1	MOBILE	410,859	6,543	(475,621)	—	—	—	(58,219)
397.2	OTHER THAN MOBILE & TELEMET	1,690,854	(2,912)	(1,680,896)	—	—	—	7,046
397.3	TELEMETERING - OTHER	2,981,693	41,925	(2,790,980)	—	—	—	232,638
397.4	TELEMETERING - MICROWAVE	976,258	50,458	(497,290)	—	—	—	529,426
397.5	TELEPHONE EQUIPMENT	331,995	72,039	—	—	—	—	404,034
398	GEN PLANT-MISCELLANEOUS EQU	—	—	—	—	—	—	—
398.1	PRINT SHOP	83,249	(82)	(78,890)	—	—	—	4,277
398.2	KITCHEN EQUIPMENT	4,137	634	—	—	—	—	4,771
398.3	JANITORIAL EQUIPMENT	14,873	—	—	—	—	—	14,873
398.4	INSTALLED IN LEASED BUILDINGS	5,393	—	—	—	—	—	5,393
398.5	OTHER MISCELLANEOUS EQUIPMENT	66,739	—	—	—	—	—	66,739
	General Plant Subtotal*	62,714,942	11,331,804	(17,760,750)	—	399,552	—	56,685,548
	Utility Property Grand Total*	1,219,745,579	78,669,838	(25,153,764)	(3,675,617)	476,948	19	1,270,063,003

NON UTILITY

Intangible Plant

303.1	COMPUTER SOFTWARE	52,333	7,713	—	—	—	—	60,047
303.2	CUSTOMER INFORMATION SYSTEM	46,503	3,564	—	—	—	—	50,067
	Non Utility Intangible Plant Subtotal*	98,837	11,277	—	—	—	—	110,114

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: **January 2018**

Period Ending: **December 2018**

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
NON UTILITY								
Natural Gas Underground Storage								
352 WELLS	3,949,872	334,574	—	—	—	—	—	4,284,446
352.1 STORAGE LEASEHOLD & RIGHTS	221	19	—	—	—	—	—	240
352.2 RESERVOIRS	876,487	68,143	—	—	—	—	—	944,631
353 LINES	388,292	37,749	—	—	—	—	—	426,042
354 COMPRESSOR STATION EQUIPMENT	4,462,958	363,075	—	—	—	—	—	4,826,034
355 MEASURING / REGULATING EQUIPM	2,111,935	201,768	—	—	—	—	—	2,313,703
357 OTHER EQUIPMENT	11,598	1,431	—	—	—	—	—	13,029
Non Utility Natural Gas Underground Storage Subtotal*	11,801,365	1,006,760	—	—	—	—	—	12,808,125
Transmission Plant								
368 TRANSMISSION COMPRESSOR	2,325,830	226,554	—	—	—	—	—	2,552,384
Non Utility Transmission Plant Subtotal*	2,325,830	226,554	—	—	—	—	—	2,552,384
Distribution Plant								
376.12 MAINS 4" & >	235,735	21,112	—	—	—	—	—	256,847
Non Utility Distribution Plant Subtotal*	235,735	21,112	—	—	—	—	—	256,847
General Plant								
389 LAND	—	—	—	—	—	—	—	—
390 STRUCTURES & IMPROVEMENTS	34,322	4,534	—	—	—	—	—	38,856
Non Utility General Plant Subtotal*	34,322	4,534	—	—	—	—	—	38,856
Non Utility Other								
121.1 NON-UTIL PROP-DOCK	1,947,067	—	—	—	—	—	—	1,947,067
121.2 NON-UTIL PROP-LAND	—	—	—	—	—	—	—	—
121.3 NON-UTIL PROP-OIL ST	2,237,730	19,713	—	—	—	—	—	2,257,443
121.7 NON-UTIL PROP-APPL CENTER	38,557	4,383	—	—	—	—	—	42,939
121.8 NON-UTIL PROP-STORAGE	(1)	—	—	—	—	—	—	(1)
Non Utility Other*	4,223,352	24,096	—	—	—	—	—	4,247,448
Non Utility Property Grand Total*	18,719,439	1,294,333	—	—	—	—	—	20,013,772

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: **January 2018**
Period Ending: **December 2018**

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve
TOTAL SUMMARY ALL UTILITY DEPRECIATION RESERVES		12/31/2018						
UTILITY								
108002	(9,526,867)							
108003	36,679							
108004	548,716							
108009	(206,898)							
108010	(43,765,745)							
108011	965,511,542							
108012	13,958,479							
108013	(3,449,404)							
108014	(824,851)							
108015	2,842,768							
108100	—							
108102	344,938,584							
108666	—							
SUBTOTAL*								<u>1,270,063,004</u>
ADD:								
108001 REMOVAL WORK IN PROCESS								(33,114,510)
TOTAL UTILITY DEPRECIATION*								<u>1,236,948,492</u>
TOTAL SUMMARY ALL NON-UTILITY RESERVES DEPRECIATION								
NON UTILITY								
122002	(100,635)							
122026	1,034							
122027	4,395,349							
122028	14,838,808							
122029	(531,316)							
122100	—							
122102	1,410,532							
TOTAL NON UTILITY DEPRECIATION*								<u>20,013,774</u>

* May not foot due to rounding.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**STATE OF OREGON - ALLOCATED
SUMMARY OF UTILITY PLANT AND ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION
AND DEPLETION**

Line No.	ITEM (a)	TOTAL (b)	ELECTRIC (c)	GAS (d)	OTHER (SPECIFY) (e)	OTHER (SPECIFY) (f)	COMMON (g)
1	UTILITY PLANT						
2	In Service						
3	Plant in Service (Classified)						
4	Property Under Capital Leases						
5	Plant Purchased or Sold						
6	Completed Construction not Classified		N/A - See SITUS schedule at OR 23				
7	Experimental Plant Unclassified						
8	TOTAL (Enter total of lines 3 thru 7)						
9	Leased to Others						
10	Held for Future Use						
11	Construction Work in Progress						
12	Acquisition Adjustments						
13	TOTAL Utility Plant (Enter total of lines 8 thru 12)						
14	Accum. Prov. for Depr., Amort., & Depl.						
15	Net Utility Plant (Line 13 less 14)						
16	DETAIL OF ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION						
17	In Service:						
18	Depreciation						
19	Amort. and Depl. of Producing Natural Gas Land and Land Rights						
20	Amort. of Underground Storage Land and Land Rights						
21	Amort. of Other Utility Plant						
21.01	Salvage Work In Progress						
21.02	Less Removal Work in Progress						
22	TOTAL in Service (Lines 18 thru 21)						
23	Leased to Others						
24	Depreciation						
25	Amortization and Depletion						
26	TOTAL Leased to Others (Lines 24 and 25)						
27	Held for Future Use						
28	Depreciation						
29	Amortization						
30	TOTAL Held for Future Use (Lines 28 and 29)						
31	Abandonment of Leases (Natural Gas)						
32	Amort. of Plant Acquisition Adjustment						
33	TOTAL Accumulated Provisions (Should agree with line 14 above) (Lines 22, 26, 30, 31, and 32)						

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED GAS PLANT IN SERVICE

- Report below the original cost of gas plant in service
- In addition to Account 101, Gas Plant In Service (Classified), this page and the next include Account 102, Gas Plant Purchased or Sold, Account 103, Completed Construction Not Classified - Gas.
- Include in column (c) or (d), as appropriate, corrections of additions and retirements for the current or preceding year.
- Enclose in parentheses credit adjustments of plant accounts to indicate the negative effect of such accounts.
- Classify Account 106 according to prescribed accounts, on an estimated basis if necessary, and include the entries in column (c). Also to be included in column (c) are entries for reversals of tentative distributions or prior year reported in column (b). Likewise, if the respondent has a significant amount of plant retirements which have not been classified to primary accounts at the end of the year, include in column (d) a tentative distribution of such retirements, on Estimated basis, with appropriate contra entry to the account for accumulated depreciation provision. Include also in column (d) reversals of tentative distributions of prior year unclassified retirements. Attach supplemental statement showing the account distributions of these tentative classifications in column (c) and (d), including the reversals of the prior years tentative account distributions of these amounts. Careful observance of the above instructions and the texts of Accounts 101 and 106 will avoid serious omissions of the reported amount of respondent's plant actually in service at the end of the year. **(Continued on page 33)**

Line No.	Account (a)	BALANCE BEGINNING OF YEAR (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	BALANCE END OF YEAR (g)	
1	1. Intangible Plant							
2	301 Organization							
3	302 Franchises and Consents							
4	303 Miscellaneous Intangible Plant							
5	TOTAL Intangible Plant							
6	2. Production Plant							
7	Natural Gas Production & Gathering Plant							
8	325.1 Producing Lands							
9	325.2 Producing Leaseholds	N/A - See SITUS schedule at OR 24 - 27						
10	325.3 Gas Rights							
11	325.4 Rights-of-Way							
12	325.5 Other Land and Land Rights							
13	326 Gas Well Structures							
14	327 Field Compressor Station Structures							
15	328 Field Meas. And Reg. Sta. Structures							
16	329 Other Structures							
17	330 Producing Gas Wells - Well Construction							
18	331 Producing Gas Wells - Well Equipment							
19	332 Field Lines							
20	333 Field Compressor Station Equipment							
21	334 Field Mess. And Reg. Sta. Equipment							
22	335 Drilling and Cleaning Equipment							
23	336 Purification Equipment							
24	337 Other Equipment							
25	338 Unsuccessful Explor. & Devel. Costs							
26	TOTAL Production & Gathering Plant							
27	Products Extraction Plant							
28	340 Land and Land Rights							
29	341 Structures and Improvements							
30	342 Extraction and Refining Equipment							
31	343 Pipe lines							
32	344 Extracted Products Storage Equipment							

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED GAS PLANT IN SERVICE (CONT'D)

6. Show in column (f) reclassifications or transfers within utility plant accounts. Include also in column (f) the additions or reductions of primary account classifications arising from distribution of amounts initially recorded in Account 102. In showing the clearance of Account 102, include in column (e) the amounts with respect to accumulated provision for depreciation, acquisition adjustments, etc. and show in column (f) only the offset to the debits or credits distributed in column (f) to primary account classifications.

7. For account 399, state the nature and use of plant included in this account and if substantial amount, submit a supplementary statement showing subaccount classification of such plant conforming to the requirements of these pages.

8. For each amount comprising the reported balance and changes in Account 102, state the property purchased or sold, name of vendor or purchaser, and date of transaction. If proposed journal entries have been filed with the Commission as required by the Uniform System of Accounts, give also date of such filing.

Line No.	Account (a)	BALANCE BEGINNING OF YEAR (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	BALANCE END OF YEAR (g)	
	2. Production Plant (Con't) Products Extraction Plant (Con't)							
33	345 Compressor Equipment							
34	345 Gas Meas. And Reg. Equipment							
35	347 Other Equipment							
36	TOTAL Products Extraction Plant							
37	TOTAL Nat. Gas Production Plant	N/A - See SITUS schedule at OR 24 - 27						
38	Mfd. Gas Prod. Plant (Submit Suppl. Stmt)							
39	TOTAL Production Plant							
40	3. Natural Gas Storage & Proc. Plant							
41	Underground Storage Plant							
42	350.1 Land							
43	350.2 Rights-of-Way							
44	351 Structures & Improvements							
45	352 Wells							
46	352.1 Storage Leaseholds & Rights							
47	352.2 Reservoirs							
48	352.3 Non-recoverable Natural Gas							
49	353 Lines							
50	354 Compressor Station Equipment							
51	355 Measuring & Reg. Equipment							
52	356 Purification Equipment							
53	357 Other Equipment							
54	TOTAL Underground Storage Plant							
55	Other Storage Plant							
56	360 Land and Land Rights							
57	361 Structures and Improvements							
58	362 Gas Holders							
59	363 Purification Equipment							
60	363.1 Liquefaction Equipment							
61	363.2 Vaporizing Equipment							
62	363.3 Compressor Equipment							
63	363.4 Meas. And Reg. Equipment							
64	363.5 Other Equipment							
65	TOTAL Other Storage Plant							

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED GAS PLANT IN SERVICE (CONT'D)

Line No.	Account (a)	BALANCE BEGINNING OF YEAR (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	BALANCE END OF YEAR (g)	
66	Base Load Liquefied Natural Gas Terminaling and Processing Plant							
67	364.1 Land and Land Rights							
68	364.2 Structures and Improvements							
69	364.3 LNG Processing Terminal Equipment							
70	364.4 LNG Transportation Equipment							
71	364.5 Measuring and Regulating Equipment	N/A - See SITUS schedule at OR 24 - 27						
72	364.6 Compressor Station Equipment							
73	364.7 Communications Equipment							
74	364.8 Other Equipment							
75	TOTAL Base Load Liquefied Natural Gas, Terminaling, & Processing Plant							
76	TOTAL Nat. Gas Storage & Proc. Plant							
77	TOTAL Nat. Gas Storage & Proc. Plant							
78	4. Transmission Plant							
79	365.1 Land and Land Rights							
80	365.2 Rights-of-Way							
81	366 Structures and Improvements							
82	367 Mains							
83	368 Compressor Station Equipment							
84	369 Measuring and Reg. Sta. Equipment							
85	370 Communication Equipment							
86	371 Other Equipment							
87	TOTAL Transmission Plant							
88	5. Distribution Plant							
89	374 Land and Land Rights							
90	375 Structures and Improvements							
91	376 Mains							
92	377 Compressor Station Equipment							
93	378 Meas. And Reg. Sta. Equip. - General							
94	379 Meas. And Reg. Sta. Equip. - City Gate							
95	380 Services							
96	381 Meters							
97	382 Meter Installations							
98	383 House Regulators							
99	384 House Reg. installations							
100	385 Industrial Meas. & Reg. Sta. Equip							
101	386 Other Prop. On Customers' premises							
102	387 Other Equipment							
103	TOTAL Distribution Plant							

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED GAS PLANT IN SERVICE (CONT'D)								
Line No.	Account (a)	BALANCE BEGINNING OF YEAR (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	BALANCE END OF YEAR (g)	
104	6. General Plant							
105	389 Land and Land Rights							
106	390 Structures and Improvements							
107	391 Office Furniture and Equipment							
108	392 Transportation Equipment	N/A - See SITUS schedule at OR 24 - 27						
109	393 Store Equipment							
110	394 Tools, Shop, and Garage Equipment							
111	395 Laboratory Equipment							
112	396 Power Operated Equipment							
113	397 Communication Equipment							
114	398 Miscellaneous Equipment							
115	Subtotal							
116	399 Other Intangible Property							
117	TOTAL General Plant							
118	TOTAL (Accounts 101 and 106)							
119	Gas Plant Purchased (See Instr. 8)							
120	(Less) Gas Plant Sold (See Instr. 8)							
121	Experimental Gas Plant Unclassified							
122	TOTAL Gas Plant In Service							

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED GAS PLANT HELD FOR FUTURE USE (Account 105)

1. Report separately each property held for future use at end of the year having an original cost of \$100,000 or more. Other items of property held for future use may be grouped provided that the number of properties so grouped is indicated.

2. For property having an original cost of \$100,000 or more previously used in utility operations, now held for future use, give in addition to other required information, the date that utility use of such property was discontinued, and the date the original was transferred to Account 105.

Line No.	DESCRIPTION AND LOCATION OF PROPERTY (a)	DATE ORIGINALLY INCLUDED IN THIS ACCOUNT (b)	DATE EXPECTED (c)	BALANCE END OF YEAR (d)
1				
2				
3				
4	N/A - See SITUS schedule at OR 28			
5				
6				
7				
8				
9				
10				
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28				
29				
30	TOTALS			—

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED CONSTRUCTION WORK IN PROGRESS - GAS (Account 107)

1. Report below descriptions and balances at end of year of projects in process of construction (Account 107)
2. Show items relating to "research, development, and demonstration" projects last, under a caption Research, Development, and Demonstration (see Account 107 of the Uniform System of Accounts).
3. Minor projects (less than \$1,000,000) may be grouped.

Line No.	DESCRIPTION OF PROJECT (a)	CONSTRUCTION WORK IN PROGRESS - GAS (ACCOUNT 107) (b)	ESTMATED ADDITIONAL COST OF PROJECT (c)
1	N/A - See SITUS schedule at OR 29		
2			
3			
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29			
30		TOTALS	

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - ALLOCATED ACCUMULATED PROVISION FOR DEPRECIATION OF GAS UTILITY PLANT (Account 108)

1. Explain in a footnote any important adjustments during the year.
2. Explain in a footnote any difference between the amount for book cost of plant retired, line 11, column (c), and that reported for gas plant in service, pages 32-35, column (d) excluding retirements of non-depreciable property.
3. The provisions of Account 108 of the Uniform System of Accounts require that retirements of depreciable plant be recorded when such plant is removed from service. If the respondent has a significant amount of plant retired at year end which has not been recorded and/or classified to the various reserve functional classifications, make preliminary closing entries to tentatively functionalize the book cost of the plant retired. In addition, include all costs included in retirement work in progress at year-end in the appropriate functional classifications.
4. Show separately interest credits under a sinking fund of similar method of depreciation accounting.

Section A. Balances and Changes During Year

Line No.	ITEM (a)	TOTAL (d+d+e) (b)	GAS PLANT IN SERVICE (c)	GAS PLANT HELD FOR FUTURE USE (d)	GAS PLANT LEASED TO OTHERS (e)
1	Balance Beginning of Year				
2	Depreciation Provisions for Year, Charged to				
3	(403) Depreciation Expense				
4	(413) Exp. Of Gas Plt. Lease to Others				
5	Transportation Expenses - Clearing				
6	Other Clearing Accounts				
7	Other Accounts (Specify):	N/A - See SITUS schedule at OR 30			
8					
9	Total Deprec. Prov. For Year (Enter total of lines 3-8)				
10	Net Charges for Plant Retired:				
11	Book Cost of Plant Retired				
12	Cost of Removal				
13	Salvage (Credit)				
14	TOTAL Net Charges for Plant Ret. (Enter Total of lines 11-13)				
15	Other Debit or Credit Items (Describe):				
16					
17	Balance End of Year (Enter Total of Lines 1,9, 14, 15,& 16)				

Section B. Balances at End of Year According to Functional Classifications

18	Production - Manufactured Gas				
19	Prod. And Gathering - Natural Gas				
20	Products Extraction - Natural Gas				
21	Underground Gas Storage				
22	Other Storage Plant				
23	Base Load LNG Term and Proc. Plt.				
24	Transmission				
25	Distribution				
26	General				
27	TOTAL (Total of Lines 18 thru 26)				

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - GAS STORED (Account 117, 164.1, 164.2 and 164.3)

1. Report below the information called for concerning inventories of gas stored.
2. The Uniform System of Accounts provides that inventory cost records be maintained on a consolidated basis for all storage projects with separate records showing the Mcf of inputs and withdrawals and balance for each project, except under certain specified circumstances. If the respondent's inventory cost records are not maintained on a consolidated basis for all storage projects, furnish an explanation of the accounting followed and reason for any deviation from the general basis provided by the Uniform System of Accounts. Separate schedules on this schedule form should be furnished for each group of storage projects for which separate inventory cost records are maintained.
3. If during the year adjustment was made of the stored gas inventory, such as to correct for cumulative inaccuracies of gas measurements, furnish an explanation of the reason for the adjustment, the Mcf and dollar amount of adjustment and account charged or credited.
4. Give a concise statement of the facts and the accounting performed with respect to any encroachment of withdrawals during the year, or restoration of previous encroachment, upon native gas constituting the "gas cushion" of any storage reservoir.
5. If the respondent uses a "base stock" in connection with its inventory accounting, give a concise statement of the basis of establishing such "base stock" and the inventory basis and the accounting performed with respect to any encroachment of withdrawals upon "base stock", or restoration of previous encroachment, including brief particulars of any such accounting during the year.
6. If respondent has provided accumulated provision for stored gas which may not eventually be fully recovered from any storage project furnish a statement showing: (a) date of Commission authorization of such accumulated provision (b) explanation of circumstances requiring such provision (c) basis of provision and factors of calculation (d) estimated ultimate accumulated provision accumulation (e) a summary showing balance of accumulated provision and entries during year.
7. Pressure base of gas volumes reported in this schedule is 14.73 psia at 60° F.

Line No.	Description (a)	Non Current (Account 117) (b)	Current (Account 164.1) (c)	LNG (Account 164.1) (d)	LNG (Account 164.2) (e)	Total (i)
1	Balance at Beginning of Year					
2	Gas Delivered to Storage					
3	Contra Account					
4	Gas Withdrawn from Storage					
5	Contra Account	SEE FERC ANNUAL REPORT				
6	Other Debits and Credits	PAGE 220				
7	(Explain					
8	Balance at End of Year					
9	Dekatherms					
10	Amount Per Dekatherm					
11						
12	Balance at End of Year					
13	MCF					
14	Amount per Mcf					
15	State basis of segregation of inventory between current and noncurrent portions.					
16						
17	Gas delivered to storage:					
18	Mcf					
19	Amount per Mcf					
20	Cost basis of gas delivered to storage:					
21	Specify: Own production (give production area, see					
22	uniform system of accounts); average system purchases					
23	specific purchases (state which purchases).					
24	Does cost of gas delivered to storage include any expenses					
25	for use of respondent's transmission, storage, or other					
26	facilities? If so, give particulars and date of Commission					
27	approval of the accounting.					
28						
29	Gas withdrawn from storage:					
30	Mcf					
31	Amount per Mcf					
32	Cost basis of withdrawals:					
33	Specify: average cost, lifo, fifo. (Explain any change in					
34	inventory basis during year and give date of Commission;					
35	approval of the change or approval of an inventory basis					
36	different from that referred to in uniform system of accounts)					

Name of Respondent	This Report is:	Date of Report	Year of Report
Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

STATE OF OREGON - GAS PURCHASES (Accounts 800, 801, 802, 803, 804.1 and 805)

1. Report particulars of gas purchases during the year in the manner prescribed below. (Code numbers to be used in reporting for Columns (d), (e) and (f) will be supplied by the Commission.)

2. Provide subheadings and totals for prescribed accounts as follows

- 800 Natural Gas Well Head Purchases
- 801 Natural Gas Field Line Purchases
- 802 Natural Gas Gasoline Plant Outlet Purchases
- 803 Natural gas Transmission Line Purchases
- 804 Natural Gas City Gate Purchases
- 804.1 Liquefied natural Gas Purchases
- 805 Other gas Purchases

Purchases are to be reported in account number sequence, e.g. all purchases charged to Account 800, followed by charges to Account 801, etc. Under each account number, purchases should be reported by states in alphabetical order. Totals are to be shown for each account in Columns (k) and (l) and should agree with the books of accounts, or any differences reconciled.

3. Purchases may be reported by gas purchase contract totals (at the option of the respondent) where one contract includes two or more FERC producer rate schedules or small producer certificates, provided that the same price is being paid for all gas purchased under the contract. If two or more prices are in effect under the same contract, separate details for each price shall be reported. The name, and FERC rate schedule or small producer certificate docket number of each seller included in the contract total shall be listed on separate sheets, clearly cross-referenced. Where two or more prices are in effect, the sellers at each price are to be listed separately.

4. Purchases of less than 100,000 MCF per year per contract from sellers not affiliated with the reporting company may (at the option of the respondent) be grouped by account number, except when the purchases were permanently discontinued during the reporting year. When grouped purchases are reported, the number of grouped purchases is to be reported in Column (a). Only Columns (a), (k), (l), and (m) are to be completed for grouped purchases; however, the Commission may request additional details when necessary. Grouped non-jurisdictional purchases should be shown on a separate line.

5. Column instructions are as follows:

Columns (a) and (d) - In reporting the names of sellers under FERC rate schedules, use the names as they appear on the filed rate schedules. Abbreviations may be used where necessary. The code number to be used is the Commission assigned number.

Column (b) - Give the name of the producing field only for purchases at the wellhead or from field lines. The plant name should be given for purchases from gasoline plant outlets. If purchases under a contract are from more than one field or plant, use the name of the one contributing the largest volume. Use a footnote to list the other fields or plants involved.

Column (c) - State the net rate in cents per MCF as of December 31 for the reported year, applicable to the volume shown in Column (k). The net rate includes all applicable deductions and downward adjustments. The rate is effective if filed pursuant to applicable statutes and regulations and (as to FERC rates schedules) permitted by the commission to become effective.

Columns (e) and (f) - General Services Administration location code designations are to be used to designate the state and county where the gas is received. Where gas is received in more than one county, use the code designation for the county having the largest volume, and by footnote list the other counties involved.

Column (g) - List the assigned commission rate schedule number or small producer certificate docket number. Use the designation "NF" in Column (g) to indicate non-jurisdictional purchases.

Column (h) - In some cases, two or more lines will be required to report a purchase, as when two or more rates are being paid under the same contract, or when purchases under the same rate schedule are charged to more than one account. If for such reasons the producer rate schedule or non-jurisdictional purchase contract appears on more than one line, enter a numerical code (selected by the respondent) in Column (h) to so indicate. Once established, the same numerical suffix is to be used for all subsequent-year reporting of the purchase. If the purchase was permanently discontinued during the reporting year, so indicate by an asterisk (*) in column (h). Column (h) is to be used also, to enter any Commission assigned letter rate schedule suffix (e.g. R.S. No. 22A).

Column (i) - Show date of the gas purchase contract. If gas is purchased under a renegotiated contract show the dates of the original and renegotiated contracts on the following line in brackets. If new acreage is dedicated by ratification of an existing contract, show the date of the ratification, rather than the date of the original contract. If gas is being sold from a different reservoir than the original dedicated acreage pursuant to Section 2.56 (f) (2) of the Commission's Rules of Practice and Procedure, place the letter "A" after the contract date.

Column (j) - Show, for each purchase, the approximate BTU per cubic foot, determined in accordance with the definition in item No. 7 of the General Instructions for FERC Form 2.

Column (k) - State the volume of purchased gas as finally measured for purpose of determining the amount payable for the gas. Include current year receipts of make-up gas that was paid for in prior years.

Column (l) - State the dollar amount (omit cents) paid and previously paid for the volumes of gas shown in Column (k).

Column (m) - State the average cost per MCF to the nearest hundredth of a cent. (Column (l) divided by Column (k) multiplied by 100).

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - GAS PURCHASES (Account 800, 801, 802, 803, 804, 804.1 and 805) (Con't)

Line No.	NAME OF SELLER (DESIGNATE ASSOCIATED COMPANIES) (a)	NAME OF PRODUCING FIELD OR GASOLINE PLANT (b)	NET RATE EFFECTIVE DECMEBER 31 (c)
1			
2			
3			
4			
5			
6		SEE FERC ANNUAL REPORT	
7		PAGE 520	
8			
9			
10			
11			
12			
13			
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Line No.	SELLAR CODE (d)	STATE CODE (e)	COUNTRY CODE (f)	RATE SCHEDULE		DATE OF CONTRACT (i)	APPROX BTU PER CU FEET (j)	GAS PURCHASED - MCF (14.73 PSIA 60°F) (k)	COST OF GAS (l)	COST PER MCF (CENTS) (m)
				No. (g)	Suffix (h)					
1										
2										
3										
4										
5										
6										
7										
8										
9										
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30										

**SEE FERC ANNUAL REPORT
PAGE 520**

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - GAS USED IN UTILITY OPERATIONS - CREDIT (Accounts 810, 811 and 812)

- Report below particulars of credits during the year to Accounts 810, 811 and 812, which offset charges to operating expenses or other accounts for the cost of gas from the respondent's own supply.
- Natural gas means either natural gas unmixed, or any mixture of natural and manufactured gas.
- If the reported MCF for any use is an estimated quantity, state such fact.
- If any natural gas was used by the respondent for which charge was not made to the appropriate operating expenses or other account, list separately in column (c) the MCF of gas so used, omitting entries in columns (d) and (e).
- Pressure base of measurement, to be reported in columns (c) and (f) is 14.73 psia at 60° F.

Line No.	PURPOSE FOR WHICH GAS WAS USED (a)	ACCOUNT CHARGED (b)	NATURAL GAS			MANUFACTURED GAS	
			Dth OF GAS USED (14.73 PSIA AT 60° F) (c)	AMOUNT OF CREDIT (d)	AMOUNT PER Dth (CENTS) (e)	MCF OF GAS USED (14.73 PSIA AT 60° F) (f)	AMOUNT OF CREDIT (g)
1	810 Gas used for Compressor Station Fuel - Credit		—	—	—	N/A	N/A
2	811 Gas used for Products Extraction - Credit		—	—	—	N/A	N/A
3	(a) Gas shrinkage & other usage in respondent's own processing		—	—		N/A	N/A
4	(b) Gas shrinkage, etc. for respondent's gas processed by others		—	—		N/A	N/A
5	812 Gas used for Other Utility Operations - Credit		405,840	183,467	0.45	N/A	N/A
6	(Report separately for each principal use, Group minor uses.)					N/A	N/A
7	System - All Districts		109,993	183,467			
8	LNG Plants		96,036	0*			
9	Underground Storage Compressors		181,848	0*			
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25	TOTAL		405,840	183,467	0.45		

* Included in the Cost of Inventory

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - GAS ACCOUNT - NATURAL GAS

1. The purpose of this schedule is to account for the quantity of natural gas received and delivered by the respondent, taking into consideration differences in pressure bases used in measuring Mcf of natural gas received and delivered.
2. Natural gas means either natural gas unmixed or any mixture of natural and manufactured gas.
3. Enter in column (c) the Dth as reported in the schedules indicated for the items of receipts and deliveries.
4. In a footnote report the volumes of gas from respondent's own production delivered to respondent's transmission system and included in natural gas sales.
5. If the respondent operates two or more systems which are not interconnected, separate schedules should be submitted. Insert pages for this purpose.

Line No.	ITEM (a)	REF. PAGE NO. (b)	Amount of Dth (c)
1	GAS RECEIVED		
2	Natural Gas Produced		—
3	LPG Gas Produced and Mixed with Natural Gas		—
4	Manufactured Gas Produced and Mixed with Natural Gas		—
5	Purchased Gas		
6	(a.) Wellhead		—
7	(b.) Field Lines		320,769
8	(c.) Gasoline Plants		—
9	(d.) Transmission Line		—
10	(e.) City Gate Under FERC Rate Schedules		66,943,633
11	(f.) LNG		—
12	(g.) Other		—
13	TOTAL, Gas Purchased (Enter Total of lines 7 thru 13)		67,264,402
14	Gas of Others Received for Transportation		36,050,234
15	Receipts of Respondents' Gas Transported or Compressed by Others		—
16	Exchange Gas Received		—
17	Gas Withdrawn from Underground Storage	*	3,138,918
18	Gas Received from LNG Storage		591,789
19	Gas Received from LNG Processing		—
20	Other Receipts (Specify): Off System Storage Withdrawal		1,141,800
21	TOTAL Receipts (Enter Total of lines 2 thru 5, 13, and 14 thru 20)		108,187,143

* This amount does not tie to system page 512 as it only includes Oregon storage sites.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - GAS ACCOUNT - NATURAL GAS (CONT'D)			
Line No.	ITEM (a)	REF. PAGE NO. (b)	Amount of Dth (c)
GAS DELIVERED			
22	Natural Gas Sales		
23	a. Field Sales		
24	(i) To Interstate Pipeline Companies for Resale pursuant to FERC Rate Schedules		—
25	(ii) Retail Industrial Sales		—
26	(iii) Other Field Sales		—
27	TOTAL, Field Sales		—
28	b. Transmission System Sales		
29	(i) To Interstate Pipeline Co. for Resale Under FERC Rate Schedules		—
30	(ii) To Interstate Pipeline Co. and Gas Utilities for resale under FERC Rate Schedules		—
31	(iii) Mainline Industrial Sales Under FERC Certification		—
32	(iv) Other Mainline Industrial Sales		—
33	(v) Other Transmission System Sales		—
34	TOTAL, Transmission System Sales		—
35	c. Local Distribution by Respondent		
36	(i) Retail Industrial Sales		8,140,960
37	(ii) Other Distribution System Sales		60,074,964
38	TOTAL, Distribution System Sales		68,215,924
39	d. Interdepartmental sales		—
40	e. Unbilled Therms		(959,960)
41	TOTAL SALES		67,255,964
42	Deliveries of Gas Transported or Compressed for:		
43	(a.) Other Interstate Pipeline Companies		—
44	(b.) Others - Transportation		36,050,234
45	TOTAL, Gas Transported or Compressed for Others		36,050,234
46	Deliveries of Respondent's Gas for Trans. or Compression by Others		—
47	Exchange Gas Delivered		—
48	Natural Gas Used by Respondent		405,840
49	Natural Gas Delivered to Underground Storage	*	3,558,554
50	Natural Gas Delivered to LNG Storage		641,922
51	Natural Gas Delivered to LNG Processing	331	—
52	Natural Gas for Franchise Requirements		—
53	Other Deliveries (Specify): FIK		—
54	TOTAL SALES & OTHER DELIVERIES		107,912,514
UNACCOUNTED FOR GAS			
55	Production System Losses		—
56	Storage Losses: Mist Gas Loss		—
57	Transmission System Losses		—
58	Distribution System Losses		274,629
59	Other Losses (Leakage)		—
60	TOTAL Unaccounted for		274,629
61	TOTAL SALES, OTHER DELIVERIES, AND UNACCOUNTED FOR		108,187,143

* This amount does not tie to system page 512 as it only includes Oregon storage sites.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - MISCELLANEOUS GENERAL EXPENSES (Account 930.2)
 Report below the information called for concerning items included in miscellaneous general expenses.

Line No.	ITEMS (a)	TOTAL (b)	AMOUNT APPLICABLE TO STATE OF OREGON (c)	AMOUNT APPLICABLE TO OTHER STATES (d)
	SEE FERC ANNUAL REPORT PAGE 335			

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - POLITICAL ADVERTISING

1. List all payments for advertising, the purpose of which is to aid or defeat any measure before the people or to promote or prevent the enactment of any national, state, district or municipal legislation.
2. Give the specific purpose of such advertising, when and where placed, and the account or accounts charged.
3. Report whole dollars only. Provide a total for each account and a grand total.

Line No.	DESCRIPTION (a)	ACCOUNT CHARGED (b)	AMOUNT (d)
	<p>NONE</p>		

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - POLITICAL CONTRIBUTIONS

1. List all payments for advertising, the purpose of which is to aid or defeat any measure before the people or to promote or prevent the enactment of any national, state, district or municipal legislation.
2. The purpose of all contributions or payments should be clearly explained
3. Report whole dollars only. Provide a total for each account and a grand total.

Line No.	DESCRIPTION (a)	ACCOUNT CHARGED (b)	AMOUNT (c)
1	INTERNAL LOBBY AND INTERNAL RESOURCES	426-04935	18,453
2	OREGON BUSINESS COUNCIL (OBC)	426-04935	25,000
3	AMERICAN GAS FOUNDATION	426-04935	5,000
4	PORTLAND BUSINESS ALLIANCE	426-04935	2,000
5	CAMPAIGN FOR SAFE AND SUCCESSFUL CHILDREN	426-04935	1,000
6	CITIZENS FOR SCHOOL SUPPORT	426-04935	1,000
7	OTHER < \$1,000	426-04935	1,000
8	Total 426-04935	Total	53,453
9			
10	NATURAL GAS POLITICAL COMMITTEE	426-04955	100,000
11	SENATE REPUBLICAN CAMPAIGN COMMITTEE	426-04955	1,000
12	WASHINGTON SENATE DEMOCRATIC CAMPAIGN	426-04955	1,000
13	HOUSE DEMOCRATIC CAMPAIGN COMMITTEE	426-04955	1,000
14	HOUSE REPUBLICAN ORGANIZATIONAL	426-04955	1,000
15	OTHER < \$1,000	426-04955	20,000
16	Total 426-04955	Total	124,000
17			
18	INTERNAL LOBBY AND INTERNAL RESOURCES	426-04950	339,291
19	Total 426-04950	Total	339,291
20			
21			
22			
23		Total	516,744
24			
25			
26			
27			
28			
29			
30			

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**STATE OF OREGON - EXPENDITURES TO ANY PERSON OR ORGANIZATION
HAVING AN AFFILIATED INTEREST FOR SERVICES, ETC.**

1. Report all expenditures to any person or organization having an affiliated interest for service, advice, auditing, associating, sponsoring, engineering, managing, operating, financial, legal or other services. See Oregon Revised Statute 757.015 for definition of "affiliated interest."
2. Give reference if such expenditures have in the past been approved by the Commission. Describe the services received and the account or accounts charged. Report whole dollars only.

Line No.	DESCRIPTION (a)	ACCOUNT NUMBER (b)	TOTAL AMOUNT (d)	AMOUNT ASSIGNED TO OREGON (d)
1	The required affiliated interest expenditure information for 2018 will be provided in NW Natural's FY 2018 annual Affiliated Interest Report.			
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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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STATE OF OREGON - DONATIONS AND MEMBERSHIPS

1. List all donations and membership expenditures made by the utility during the year and the accounts charged. Give the name, city, and state of each organization to whom a donation has been made. Group donations under headings such as:

- a. Contributions to and memberships in charitable organizations.
- b. Organizations of the utility industry.
- c. Technical and professional organizations.
- d. Commercial and trade organizations.
- e. All other organizations and kinds of donations and contributions.

2. List donations by type and group by the accounts charged. Report whole dollars only. Provide a total for each group of donations.

Line No.	DESCRIPTION (a)	ACCOUNT NUMBER (b)	TOTAL AMOUNT (c)	AMOUNT ASSIGNED TO OREGON (d)
1	All donations listed below are contributions to charitable organizations.			
2	UNITED WAY	426-02180	147,300	147,300
3	CASA FOR CHILDREN	426-02180	40,300	40,300
4	BRIDGE MEADOWS	426-02180	37,500	37,500
5	AMERICAN RED CROSS CASCADES REGION	426-02180	35,000	30,000
6	JANUS YOUTH PROGRAMS	426-02180	35,000	35,000
7	SOLVE	426-02180	35,000	35,000
8	OREGON TRAIL OF HOPE INC	426-02180	25,000	25,000
9	PORTLAND CENTER STAGE	426-02180	22,500	22,500
10	REGIONAL ARTS & CULTURE COUNCIL	426-02180	20,752	20,752
11	PSU FOUNDATION	426-02180	15,750	15,750
12	FRIENDS OF THE CHILDREN - PORTLAND	426-02180	15,400	15,400
13	LITERARY ARTS INC	426-02180	13,000	13,000
14	OREGON FOOD BANK INC	426-02180	12,950	12,950
15	OREGON ALLIANCE OF INDEPENDENT	426-02180	12,000	12,000
16	OREGON COMMUNITY FOUNDATION	426-02180	11,827	6,827
17	ENVIRONMENTAL FEDERATION OF OREGON	426-02180	11,575	11,575
18	BLACK UNITED FUND OF OREGON	426-02180	10,800	10,800
19	OREGON BALLET THEATRE	426-02180	10,400	10,400
20	LIFEWORCS NORTHWEST	426-02180	10,000	10,000
21	MERCY CORPS	426-02180	10,000	10,000
22	OREGON HISTORICAL SOCIETY	426-02180	10,000	10,000
23	P:EAR	426-02180	10,000	10,000
24	VIRGINIA GARCIA	426-02180	10,000	10,000
25	BOYS & GIRLS CLUBS	426-02180	10,000	10,000
26	PORTLAND COMMUNITY COLLEGE	426-02180	10,000	10,000
27	PORTLAND STATE	426-02180	10,000	10,000
28	OREGON STATE UNIVERSITY FOUNDATION	426-02180	10,000	10,000
29	FOREST PARK CONSERVANCY	426-02180	7,900	7,900
30	PORTLAND CLASSICAL CHINESE GARDEN	426-02180	7,800	7,800
31	FRIENDS OF TREES	426-02180	7,500	7,500
32	PORTLAND ART MUSEUM	426-02180	7,500	7,500
33	THE OREGON ZOO FOUNDATION	426-02180	7,500	7,500
34	GUIDE DOGS FOR THE BLIND INC	426-02180	7,450	7,450
35	JUNIOR ACHIEVEMENT	426-02180	6,450	6,450
36	CENTRAL CITY CONCERN INC	426-02180	6,000	6,000
37	GROWING GARDENS	426-02180	6,000	6,000
38	FAMILY BUILDING BLOCKS	426-02180	6,000	6,000
39	URBAN LEAGUE OF PORTLAND	426-02180	6,000	6,000
40	SMART	426-02180	5,900	5,900
41	PORTLAND FESTIVAL SYMPHONY	426-02180	5,500	5,500

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Line No.	DESCRIPTION (a)	ACCOUNT NUMBER (b)	TOTAL AMOUNT (c)	AMOUNT ASSIGNED TO OREGON (d)
42	COMMUNITY WAREHOUSE	426-02180	5,450	5,450
43	COMMUNITY CYCLING CENTER	426-02180	5,400	5,400
44	OREGON MUSEUM OF	426-02180	5,400	5,400
45	WIND & OAR BOAT SCHOOL	426-02180	5,400	5,400
46	TRANSITION PROJECTS INC	426-02180	5,300	5,300
47	STAND FOR CHILDREN	426-02180	5,250	5,250
48	BASIC RIGHTS EDUCATION FUND	426-02180	5,000	5,000
49	CAMPBELL INSTITUTE	426-02180	5,000	5,000
50	CASH OREGON	426-02180	5,000	5,000
51	CLACKAMAS WOMEN'S SERVICES	426-02180	5,000	5,000
52	COLUMBIA SPRINGS	426-02180	5,000	—
53	COMMUNITY TRANSITIONAL SCHOOL	426-02180	5,000	5,000
54	ETHOS INC	426-02180	5,000	5,000
55	JAPANESE GARDEN	426-02180	5,000	5,000
56	MACDONALD CENTER	426-02180	5,000	5,000
57	NORTHWEST EARTH INSTITUTE	426-02180	5,000	5,000
58	OREGON SYMPHONY ASSOCIATION	426-02180	5,000	5,000
59	PORTLAND PARKS FOUNDATION	426-02180	5,000	5,000
60	SCHOOLHOUSE SUPPLIES INC	426-02180	5,000	5,000
61	THE CHILDREN'S CENTER OF CLACKAMAS	426-02180	5,000	5,000
62	THE DOUGY CENTER INC	426-02180	5,000	5,000
63	THE FRESHWATER TRUST	426-02180	5,000	5,000
64	THE LIBRARY FOUNDATION	426-02180	5,000	5,000
65	THE NATURE CONSERVANCY	426-02180	5,000	5,000
66	NEW AVENUES FOR YOUTH	426-02180	5,000	5,000
67	CLARK COUNTY VOCATIONAL SKILLS CNT	426-02180	5,000	—
68	KIDS INTERVENTION & DIAGNOSTIC SVC	426-02180	5,000	5,000
69	BOYS & GIRLS CLUB OF SALEM, MARION	426-02180	5,000	5,000
70	ALL HANDS RAISED	426-02180	5,000	5,000
71	IMPACT NORTHWEST	426-02180	5,000	5,000
72	MEDICAL TEAMS INTERNATIONAL	426-02180	5,000	5,000
73	OREGON COAST AQUARIUM INC	426-02180	5,000	5,000
74	PACIFIC COMMUNITIES HEALTH	426-02180	5,000	5,000
75	URBAN GLEANERS	426-02180	5,000	5,000
76	WINDERMERE FOUNDATION	426-02180	5,000	—
77	PORTLAND JAZZ FESTIVAL	426-02180	5,000	5,000
78	THE SALVATION ARMY VETERANS	426-02180	5,000	5,000
79	EPISCOPAL LAYMAN'S MISSION SOCIETY	426-02180	4,000	4,000
80	I HAVE A DREAM FOUNDATION OREGON	426-02180	3,500	3,500
81	CLASSROOM LAW PROJECT	426-02180	3,500	3,500
82	NATIVE AMERICAN YOUTH	426-02180	3,500	3,500
83	THE SALVATION ARMY	426-02180	3,400	3,400
84	OREGON HUMANE SOCIETY	426-02180	3,119	3,119
85	HARPER'S PLAYGROUND	426-02180	3,100	3,100
86	FRIENDS OF THE RIDGEFIELD	426-02180	3,000	—
87	LATINO NETWORK	426-02180	3,000	3,000
88	LOWER COLUMBIA RIVER	426-02180	3,000	1,500
89	PORTLAND CHILDREN'S MUSEUM	426-02180	3,000	3,000
90	CAMP FIRE COLUMBIA	426-02180	3,000	3,000

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Line No.	DESCRIPTION (a)	ACCOUNT NUMBER (b)	TOTAL AMOUNT (c)	AMOUNT ASSIGNED TO OREGON (d)
91	BRADLEY-ANGLE HOUSE	426-02180	3,000	3,000
92	PLANNED PARENTHOOD	426-02180	2,960	2,960
93	CHESS FOR SUCCESS	426-02180	2,850	2,850
94	THE CHILDREN'S BOOK BANK	426-02180	2,562	2,562
95	CLATSOP CASA PROGRAM INC	426-02180	2,500	2,500
96	COLUMBIA RIVER MARITIME MUSEUM	426-02180	2,500	2,500
97	COMMUNITY ACTION ORGANIZATION	426-02180	2,500	2,500
98	DRESS FOR SUCCESS OF OREGON INC	426-02180	2,500	2,500
99	MT HOOD COMMUNITY	426-02180	2,500	2,500
100	MUSLIM EDUCATIONAL TRUST	426-02180	2,500	2,500
101	NORTHWEST HOUSING ALTERNATIVES	426-02180	2,500	2,500
102	OREGON COLLEGE OF ORIENTAL MEDICINE	426-02180	2,500	2,500
103	PORTLAND OPERA ASSOCIATION INC	426-02180	2,500	2,500
104	SATURDAY ACADEMY	426-02180	2,500	2,500
105	OREGON ENVIRONMENTAL COUNCIL	426-02180	2,500	2,500
106	RAPHAEL HOUSE OF PORTLAND	426-02180	2,500	2,500
107	OREGON COUNCIL FOR THE HUMANITIES	426-02180	2,500	2,500
108	NEIGHBORHOOD PARTNERSHIPs inc	426-02180	2,500	2,500
109	COALITION OF COMMUNITIES OF COLOR	426-02180	2,500	2,500
110	OPEN SCHOOL INC	426-02180	2,500	2,500
111	CASA OF LANE COUNTY	426-02180	2,500	2,500
112	THE INTERTWINE ALLIANCE FOUNDATION	426-02180	2,500	2,500
113	1000 FRIENDS OF OREGON	426-02180	2,500	2,500
114	FRIENDS OF ZENGER FARM	426-02180	2,500	2,500
115	OREGON PARTNERSHIP INC	426-02180	2,500	2,500
116	RENEWABLE NORTHWEST PROJECT	426-02180	2,500	1,250
117	PORTLAND HOMELESS FAMILY SOLUTIONS	426-02180	2,500	2,500
118	LIBERTY RESTORATION INC	426-02180	2,500	2,500
119	HUMAN SOLUTIONS	426-02180	2,500	2,500
120	ACHIEVEMENT REWARDS FOR COLLEGE	426-02180	2,500	2,500
121	JEWISH FEDERATION OF GREATER PORTLA	426-02180	2,500	2,500
122	LANE LEADERSHIP FOUNDATION	426-02180	2,500	2,500
123	HILLSBORO SCHOOLS FOUNDATION	426-02180	2,500	2,500
124	OREGON HEALTH CARE	426-02180	2,500	2,500
125	PORTLAND STATE FOUNDATION	426-02180	2,000	2,000
126	FOOD FOR LANE COUNTY	426-02180	2,000	2,000
127	NEIGHBORHOOD HOUSE	426-02180	2,000	2,000
128	SERENDIPITY CENTER INC	426-02180	2,000	2,000
129	SOUTH LANE FAMILY RELIEF NURSERY	426-02180	2,000	2,000
130	EUGENE FAMILY YMCA	426-02180	2,000	2,000
131	Donations < \$2K	426-02180	72,071	71,346
132	Donations and Memberships to Charitable Organizations Total:	426-02180	1,086,316	1,054,841
133				
134	Contributions to a Technical or Professional Organization			
135	HISPANIC METROPOLITAN CHAMBER	426-02180	2,000	2,000
136	Contributions to a Technical or Professional Organization Total:	426-02180	2,000	2,000
137				
138	TOTAL DONATIONS		1,088,316	1,056,841

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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State of Oregon - Officers' Salaries

1. Report below the name, title and salary for each executive officer whose salary is \$50,000 or more. An "executive officer" of a respondent includes its president, secretary, treasurer, and vice president in charge of a principal business unit, division or function (such as sales, administration, or finance), and any other person who performs similar policy-making functions.
2. If a change was made during the year in the incumbent of any position, show name and total remuneration of the previous incumbent and date change in incumbency was made.
3. Utilities which are required to file similar data with the Securities and Exchange Commission, may substitute a copy of Item 4, Regulation S-K, identified as this schedule page. The substituted page(s) should be conformed to the size of this page.

Line No.	Title (a)	Name of Officer (b)	SALARY FOR YEAR	
			Total (c)	OREGON (d)
See the salary information for 2018 excerpted from the Summary Compensation Table on page 50 of the 2019 Northwest Natural Holding Company Proxy (Item 4, Regulation S-K requirement) filed on April 11, 2019 below.				
	NAME AND PRINCIPAL POSITION		TOTAL SALARY	
1	David H. Anderson President and Chief Executive Officer		\$679,167	
2	Frank H. Burkhartsmeyer Senior Vice President and Chief Financial Officer		\$410,833	
3	MardiLyn Saathoff Senior Vice President, Regulation and General Counsel		\$367,000	
4	Lea Anne Doolittle Senior Vice President and Chief Administrative Officer		\$309,333	
5	Kimberly A. Heiting, Senior Vice President, Operations and Chief Marketing Officer		\$300,000	

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**STATE OF OREGON - DONATIONS OR PAYMENTS FOR SERVICES RENDERED BY PERSONS
OTHER THAN EMPLOYEES AND CHARGED TO OREGON OPERATING ACCOUNTS**

1. Report for each service rendered (including materials furnished incidental to the service which are impracticable of (separation)by recipient and in total the aggregate of all payments made during the year where the aggregate of such payments to a recipient was \$25,000 or more including fees, retainers, commissions, gifts, contributions, assessments, bonuses, subscriptions, allowances for expenses or any other form of payments for services, traffic settlements, amounts paid for construction or maintenance of plant to persons other than affiliates to any one corporation, institution, association, firm partnership, committee, or person (not an employee of the respondent). Indicate by an asterisk in column (c) each item that includes payments for materials furnished incidental to the services performed. Payments to a recipient by two or more companies within a single system under a cost sharing or other joint arrangement shall be considered a single item for reporting in this schedule and shall be shown in the report of the principal company in the joint arrangement(as measured by gross operating revenues) with references thereto in the reports of the other system companies in the joint arrangement.

2. If more convenient, this schedule may be filled out for a group of companies considered as one system and shown only in the report of the principal company in the system, with references thereto in the reports of the other companies.

Line No.	NAME OF RECIPIENT (a)	NATURE OF SERVICE (b)	AMOUNT OF PAYMENT (c)
	SEE FERC ANNUAL REPORT PAGE 357		

Name of Respondent	This Report is:	Date of Report	Year of Report
Northwest Natural Gas Company	(1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	(Mo, Da, Yr)	December 31, 2018

In order to help us with production of our Oregon Utility Statistics publication, please indicate:

Oregon Production Statistics (Therms)	—
Gas Produced	672,644,020
Gas Purchased	672,644,020
Total Receipts	<u>672,644,020</u>

Gas Sales	682,159,240
Gas Used by Company	4,058,395
Gas Delivered to LNG and Storage - Net	(6,720,310)
Losses & billing Delay	(6,853,305)
Total Disbursements	<u>672,644,020</u>

Oregon Revenue by Service Class	
Residential	\$ 359,641,078
Commercial & Industrial	
Firm	201,085,571
Interruptible	18,280,770
Transportation	19,420,266
Total	<u>\$ 598,427,685</u>

Gas Sold in Therms (Oregon)	
Residential	362,936,998
Commercial & Industrial	
Firm	260,291,903
Interruptible	49,330,739
Transportation	360,502,341
Total	<u>1,033,061,981</u>

Average Number of Oregon Customers	
Residential	598,016
Commercial & Industrial	
Firm	61,820
Interruptible	123
Transportation	350
Total	<u>660,309</u>

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**Distribution of Salaries and Wages
Oregon Jurisdiction**

Report below the distribution of total salaries and wages for the year. Segregate amounts originally charged to clearing accounts to Utility Departments, Construction, Plant Removals and Other Accounts, and enter such amounts in the appropriate lines and columns provided. Salaries and wages billed to the Respondent by an affiliated company must be assigned to the particular operating function(s) relating to the expenses.

In determining this segregation of salaries and wages originally charged to clearing accounts, a method of approximation giving substantially correct results may be used. When reporting detail of other accounts, enter as many rows as necessary numbered sequentially starting with 75.01, 75.02, etc.

Line No.	Classification (a)	Direct Payroll Distribution (b)	Payroll Billed by Affiliated Companies (c)	Allocation of Payroll Charged for Clearing Accounts (d)	Total (e)
1	Electric				
2	Operation				
3	Production				
4	Transmission				
5	Distribution	SEE FERC ANNUAL REPORT			
6	Customer Accounts	PAGES 354-355			
7	Customer Service and Informational				
8	Sales				
9	Administrative and General				
10	TOTAL Operation (Total of lines 3 thru 9)				
11	Maintenance				
12	Production				
13	Transmission				
14	Distribution				
15	Administrative and General				
16	TOTAL Maintenance (Total of lines 12 thru 15)				
17	Total Operation and Maintenance				
18	Production (Total of lines 3 and 12)				
19	Transmission (Total of lines 4 and 13)				
20	Distribution (Total of lines 5 and 14)				
21	Customer Accounts (line 6)				
22	Customer Service and Informational (line 7)				
23	Sales (line 8)				
24	Administrative and General (Total of lines 9 and 15)				
25	TOTAL Operation and Maintenance (Total of lines 18 thru 24)				
26	Gas				
27	Operation				
28	Production - Manufactured Gas				
29	Production - Natural Gas(Including Exploration and Development)				
30	Other Gas Supply				
31	Storage, LNG Terminaling and Processing				
32	Transmission				
33	Distribution				
34	Customer Accounts				
35	Customer Service and Informational				
36	Sales				
37	Administrative and General				
38	TOTAL Operation (Total of lines 28 thru 37)				
39	Maintenance				
40	Production - Manufactured Gas				

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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41	Production - Natural Gas(Including Exploration and Development)				
42	Other Gas Supply				
43	Storage, LNG Terminaling and Processing				
44	Transmission				
45	Distribution				
46	Administrative and General				
47	TOTAL Maintenance (Total of lines 40 thru 46)				
48	Gas (Continued)				
49	Total Operation and Maintenance				
50	Production - Manufactured Gas (Total of lines 28 and 40)				
51	Production - Natural Gas (Including Expl. and Dev.) (ll. 29 and 41)	SEE FERC ANNUAL REPORT			
52	Other Gas Supply (Total of lines 30 and 42)	PAGES 354-355			
53	Storage, LNG Terminaling and Processing (Total of ll. 31 and 43)				
54	Transmission (Total of lines 32 and 44)				
55	Distribution (Total of lines 33 and 45)				
56	Customer Accounts (Total of line 34)				
57	Customer Service and Informational (Total of line 35)				
58	Sales (Total of line 36)				
59	Administrative and General (Total of lines 37 and 46)				
60	Total Operation and Maintenance (Total of lines 50 thru 59)				
61	Other Utility Departments				
62	Operation and Maintenance				
63	TOTAL ALL Utility Dept. (Total of lines 25, 60, and 62)				
64	Utility Plant				
65	Construction (By Utility Departments)				
66	Electric Plant				
67	Gas Plant				
68	Other				
69	TOTAL Construction (Total of lines 66 thru 68)				
70	Plant Removal (By Utility Departments)				
71	Electric Plant				
72	Gas Plant				
73	Other				
74	TOTAL Plant Removal (Total of lines 71 thru 73)				
75					
76	TOTAL Other Accounts				
77	TOTAL SALARIES AND WAGES				

NORTHWEST NATURAL GAS COMPANY

Washington Supplement to FERC Form 2

December 31, 2018

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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**ANNUAL REPORT
WASHINGTON SUPPLEMENT TO FERC FORM 2
for
MULTI-STATE GAS COMPANIES**

INDEX

<u>PAGE</u>	<u>TITLE</u>	<u>NOTES</u>
1	Statistics	WA Data only
N/A	Statement of Income for the Year	No WA breakout - see FERC pages 114 - 116
200 - 201	Summary of Utility Plant	WA Data only
204 - 209	Gas Plant in Service	WA Data only
216	CWIP	WA Data only
N/A	Construction Overheads	No WA breakout - see FERC pages 218 - 219
219	Accumulated Provision for Depreciation of Gas Utility Plant	WA Data only
N/A	Gas Stored	No WA breakout - see FERC page 220
N/A	Reconciliation-Reported Net Income with Taxable Income for Federal Income Taxes	No WA breakout - see FERC page 261
N/A	Accumulated Deferred Income Taxes, Account 283	No WA breakout - see FERC pages 276 - 277
300 - 301	Gas Operating Revenues	WA Data only
308	Other Gas Revenues	WA Data only
N/A	Gas Operation and Maintenance Expenses	No WA breakout - see FERC pages 317 - 325
N/A	Miscellaneous General Expense	No WA breakout - see FERC page 335
336 - 337	Depreciation, Depletion and Amortization of Gas Plant	WA Data only (same as page 219)
N/A	Income Deductions and Interest Charges	No WA breakout - see FERC page 340
N/A	Regulatory Commission Expenses	No WA breakout - see FERC pages 350 - 351
N/A	Distribution of Salaries and Wages	No WA breakout - see FERC pages 354 - 355
N/A	Charges for Outside Professional and Other Consultative Services	No WA breakout - see FERC page 357
520	Gas Account - Natural Gas	WA Data only
526	Salaries by Class	No WA breakout - full company data provided

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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DATA REQUEST FOR STATISTICS REPORT

Line No.	Title of Account	Total Company Operations		Washington Operations	
		Current Year	Prior Year	Current Year	Prior Year
1	GAS SERVICE REVENUES				
2					
3	RESIDENTIAL SALES	407,940,700	458,762,939	45,624,649	51,148,494
4	COMMERCIAL SALES	201,535,074	229,680,586	17,794,469	19,735,075
5	INDUSTRIAL SALES	39,758,186	44,930,544	2,466,984	2,706,144
6	OTHER SALES	—	—	—	—
7	SALES FOR RESALE	—	—	—	—
8	TRANSPORTATION OF GAS OF OTHERS	21,848,308	20,351,015	2,428,043	2,363,753
9	OTHER OPERATING REVENUES	(3,647,615)	(1,714,115)	(4,475,465)	(2,313,471)
10					
11	TOTAL GAS SERVICE REVENUES	667,434,653	752,010,969	63,838,680	73,639,995
12					
13	THERMS OF GAS SOLD-TRANSPORTED				
14					
15	RESIDENTIAL SALES	419,202,101	466,326,679	49,654,941	54,321,792
16	COMMERCIAL SALES	252,948,059	274,772,356	21,745,578	23,082,577
17	INDUSTRIAL SALES	85,770,565	35,567,329	4,360,970	3,169,879
18	OTHER SALES (UNBILLED)	(10,817,782)	(652,709)	(1,218,186)	117,158
19	SALES FOR RESALE	—	—	—	—
20	TRANSPORTATION OF GAS OF OTHERS	381,099,930	409,171,739	20,597,589	20,925,171
21					
22	TOTAL THERMS OF GAS SOLD-TRANSPORTED	1,128,202,873	1,185,185,394	95,140,892	101,616,577
23					
24	AVERAGE NUMBER OF GAS CUSTOMERS PER MONTH				
25					
26	RESIDENTIAL SALES	674,149	662,731	76,135	73,747
27	COMMERCIAL SALES	68,180	67,417	6,980	6,735
28	INDUSTRIAL SALES	803	792	60	57
29	OTHER SALES	—	—	—	—
30	SALES FOR RESALE	—	—	—	—
31	TRANSPORTATION OF GAS OF OTHERS	391	392	41	41
32					
33					
34	TRANS. & DISTRN. MAINS - FEET (END OF YEAR)	77,179,053	76,351,706	10,073,611	9,765,955
35	NO. OF METERS IN SERV. & HELD IN RESERVE (AVE.)	831,548	819,255	84,346	81,661
36	AVERAGE B.T.U. CONTENT PER CU. FT.	1,074	1,071.7	1,075.8	1,073.6

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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SUMMARY OF UTILITY PLANT AND ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION

Line No.	Item (a)	Total (b)
1	UTILITY PLANT	
2	In Service	
3	Plant in Service (Classified)	240,572,690
4	Property Under Capital Leases	—
5	Plant Purchased or Sold	—
6	Completed Construction not Classified	59,156,899
7	Experimental Plant Unclassified	—
8	TOTAL Utility Plant (Total of lines 3 thru 7)	299,729,589
9	Leased to Others	—
10	Held for Future Use	—
11	Construction Work in Progress	841,348
12	Acquisition Adjustments	—
13	TOTAL Utility Plant (Total of lines 8 thru 12)	300,570,937
14	Accumulated Provisions for Depreciation, Amortization, & Depletion	116,498,005
15	Net Utility Plant (Enter Total of line 13 less 14)	184,072,932
16	DETAIL OF ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION	
17	In Service:	
18	Depreciation	116,350,343
19	Amortization and Depl. of Producing Natural Gas Land and Land Rights	—
20	Amortization. of Underground Storage Land and Land Rights	—
21	Amortization. of Other Utility Plant	1,890,531
22	Salvage Work In Progress	—
23	Less Removal Work In Progress	1,742,869
24	TOTAL In Service (Total of lines 18 thru 22 less line 23)	116,498,005
25	Leased to Others	
26	Depreciation	—
27	Amortization and Depletion	—
28	TOTAL Leased to Others (Total of lines 26 and 27)	—
29	Held for Future Use	
30	Depreciation	—
31	Amortization	—
32	TOTAL Held for Future Use (Total of lines 30 and 31)	—
33	Abandonment of Leases (Natural Gas)	—
34	Amortization of Plant Acquisition Adjustment	—
35	TOTAL Accumulated Provisions (Should agree with line 14 above) (Total of lines 24, 28, 32, 33, and 34)	116,498,005

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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SUMMARY OF UTILITY PLANT AND ACCUMULATED PROVISIONS FOR DEPRECIATION, AMORTIZATION AND DEPLETION (Continued)

Electric (c)	Gas (d)	Other (Specify) (e)	Common (f)	Line No.
				1
				2
	240,572,690			3
	—			4
	—			5
	59,156,899			6
	—			7
	299,729,589			8
	—			9
	—			10
	841,348			11
	—			12
	300,570,937			13
	116,498,005			14
	184,072,932			15
				16
				17
	116,350,343			18
	—			19
	—			20
	1,890,531			21
	—			22
	1,742,869			23
	116,498,005			24
				25
	—			26
	—			27
	—			28
				29
	—			30
	—			31
	—			32
	—			33
	—			34
	116,498,005			35

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Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Gas Plant in Service (Accounts 101, 102, 103, and 106)

1. Report below the original cost of gas plant in service according to the prescribed accounts.
2. In addition to Account 101, Gas Plant in Service (Classified), this page and the next include Account 102, Gas Plant Purchased or Sold, Account 103, Experimental Gas Plant Unclassified, and Account 106, Completed Construction Not Classified-Gas.
3. Include in column (c) and (d), as appropriate corrections of additions and retirements for the current or preceding year.
4. Enclose in parenthesis credit adjustments of plant accounts to indicate the negative effect of such accounts.
5. Classify Account 106 according to prescribed accounts, on an estimated basis if necessary, and include the entries in column (c). Also to be included in column (c) are entries for reversals of tentative distributions of prior year reported in column (b). Likewise, if the respondent has a significant amount of plant retirements which have not been classified to primary accounts at the end of the year, include in column (d) a tentative distribution of such retirements, on an estimated basis, with appropriate contra entry to the account for accumulated depreciation provision. Include also in column (d) reversals of tentative distributions of prior year's unclassified retirements. Attach supplemental statement showing the account distributions of these tentative classifications in columns (c) and (d), including the reversals of the prior years tentative account distributions of these amounts. Careful observance of the above instructions and the texts of Account 101 and 106 will avoid serious omissions of respondent's reported amount for plant actually in service at end of year.
6. Show in column (f) reclassifications or transfers within utility plant accounts. Include also in column (f) the additions or reductions of primary account classifications arising from distribution of amounts initially recorded in Account 102. In showing the clearance of Account 102, include in column (e) the amounts with respect to accumulated provision for depreciation, acquisition adjustments, etc., and show in column (f) only the offset to the debits or credits to primary account classifications.
7. For Account 399, state the nature and use of plant included in this account and if substantial in amount submit a supplementary statement showing subaccount classification of such plant conforming to the requirements of these pages.
8. For each amount comprising the reported balance and changes in Account 102, state the property purchased or sold, name of vendor or purchaser, and date of transaction. If proposed journal entries have been filed with the Commission as required by the Uniform System of Accounts, give date of such filing.

SEE FOLLOWING PAGES

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Balance	Additions	Retirements	Transfers	Adjustments	Ending Balance*
UTILITY						
Intangible Plant						
301 ORGANIZATION	322	—	—	—	—	322
302 FRANCHISES & CONSENTS	125	—	—	—	—	125
303.1 COMPUTER SOFTWARE	—	—	—	—	—	—
303.2 CUSTOMER INFORMATION SYSTEM	1,859,863	—	—	—	—	1,859,863
303.3 INDUSTRIAL & COMMERCIAL BIL	—	—	—	—	—	—
303.4 CRMS	—	—	—	—	—	—
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—
Intangible Plant Subtotal*	1,860,310	—	—	—	—	1,860,310
Transmission Plant						
367 MAINS	1,114,674	327	—	—	—	1,115,001
Transmission Plant Subtotal*	1,114,674	327	—	—	—	1,115,001
Distribution Plant						
374.1 LAND	10,389	—	—	—	—	10,389
374.2 LAND RIGHTS	27,679	—	—	—	—	27,679
375 STRUCTURES & IMPROVEMENTS	1,368,401	18,608	—	—	—	1,387,008
376.11 MAINS < 4"	79,990,367	5,322,488	(31,244)	—	—	85,281,611
376.12 MAINS 4" & >	87,318,971	12,325,452	(9,589)	—	—	99,634,834
378 MEASURING & REG EQUIP - GENER	2,232,755	1,281,996	—	—	—	3,514,751
379 MEASURING & REG EQUIP - GATE	1,252,374	217,340	—	—	—	1,469,713
380 SERVICES	70,855,855	4,410,548	(21,299)	—	(2,017)	75,243,087
381 METERS	10,556,247	631,846	(91,723)	—	—	11,096,370
381.2 ERT (ENCODER RECEIVER TRANS	6,816,622	301,841	(94,906)	—	—	7,023,556
382 METER INSTALLATIONS	6,220,768	406,089	(205,712)	—	—	6,421,145
382.2 ERT INSTALLATION (ENCODER	934,103	—	(6,524)	—	—	927,579
383 HOUSE REGULATORS	74,224	73,109	—	—	—	147,333
386 OTHER PROPERTY ON CUSTOMERS P	—	—	—	—	—	—
387.2 CALORIMETERS @ GATE STATIONS	26,630	—	—	—	—	26,630
Distribution Plant Subtotal*	267,685,383	24,989,315	(460,996)	—	(2,017)	292,211,686

ACCOUNT SUMMARY BY FUNCTIONAL CLASS

NW Natural

Period Beginning: January 2018

Period Ending: December 2018

Functional Class		Beginning					Ending
FERC Plant Account		Balance	Additions	Retirements	Transfers	Adjustments	Balance*
UTILITY							
General Plant							
389	LAND	1,158,650	—	—	—	—	1,158,650
390	STRUCTURES & IMPROVEMENTS	1,582,254	—	—	—	—	1,582,254
390.1	SOURCE CONTROL PLANT	690,548	122	—	—	—	690,670
391.1	OFFICE FURNITURE & EQUIPMEN	16,522	—	—	—	—	16,522
391.4	CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—
392	TRANSPORTATION EQUIPMENT	574,843	—	—	—	—	574,843
394	TOOLS - SHOP AND GARAGE EQUIPMENT	88,278	61,959	—	—	—	150,237
396	POWER OPERATED EQUIPMENT	228,757	—	(42,668)	—	—	186,090
397.3	TELEMETERING - OTHER	101,081	94,317	(16,798)	—	—	178,600
397.5	TELEPHONE EQUIPMENT	—	—	—	—	—	—
398.4	INSTALLED IN LEASED BUILDINGS	4,727	—	—	—	—	4,727
	General Plant Subtotal	4,445,661	156,397	(59,466)	—	—	4,542,592
	Washington Utility Property Grand Total*	275,106,028	25,146,040	(520,461)	—	(2,017)	299,729,590

* May not foot due to rounding.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Construction Work in Progress - Gas (Account 107)

1. Report below descriptions and balances at end of year of projects in process of construction (Account 107)
2. Show items relating to "research, development, and demonstration" projects last, under a caption Research, Development, and Demonstration (see Account 107 of the Uniform System of Accounts).
3. Minor projects (less than \$1,000,000) may be grouped.

Line No.	Description of Project (a)	Construction Work in Progress - Gas (Account 107) (b)	Estimated Additional Cost of Project (c)
1	Mains and Service Jobs	841,348	2,316,161
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
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21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35	Total	841,348	2,316,161

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Accumulated Provision for Depreciation of Gas Utility Plant (Account 108)			
1. Explain in a footnote any important adjustments during year. 2. Explain in a footnote any difference between the amount for book cost of plant retired, line 10, column (c), and that reported for gas plant in service, page 204-209, column (d), excluding retirements of nondepreciable property. 3. The provisions of Account 108 in the Uniform System of Accounts require that retirements of depreciable plant be recorded when such plant is removed from service. If the respondent has a significant amount of plant retired at year end which has not been recorded and/or classified to the various reserve functional classifications, make preliminary closing entries to tentatively functionalize the book cost of the plant retired. In addition, include all costs included in retirement work in progress at year end in the appropriate functional classifications. 4. Show separately interest credits under a sinking fund or similar method of depreciation accounting. 5. At lines 7 and 14, add rows as necessary to report all data. Additional rows should be numbered in sequence, e.g., 7.01, 7.02, etc.			
SEE FOLLOWING PAGES			

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
Intangible Plant								
301 ORGANIZATION	—	—	—	—	—	—	—	—
302 FRANCHISES & CONSENTS	—	—	—	—	—	—	—	—
303.1 COMPUTER SOFTWARE	3,144	—	—	—	—	—	—	3,144
303.2 CUSTOMER INFORMATION SYSTEM	1,863,073	—	—	—	—	—	—	1,863,073
303.3 INDUSTRIAL & COMMERCIAL BIL	—	—	—	—	—	—	—	—
303.4 CRMS	—	—	—	—	—	—	—	—
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—	—	—
Intangible Plant Subtotal*	1,866,216	—	—	—	—	—	—	1,866,216
Transmission Plant								
367 MAINS	148,056	22,541	—	—	—	—	—	170,597
Transmission Plant Subtotal*	148,056	22,541	—	—	—	—	—	170,597
Distribution Plant								
374.1 LAND	—	—	—	—	—	—	—	—
374.2 LAND RIGHTS	22,559	1,756	—	—	—	—	—	24,315
375 STRUCTURES & IMPROVEMENTS	36,933	4,905	—	—	—	—	—	41,838
376.11 MAINS < 4"	37,627,825	2,156,521	(31,244)	(11,610)	—	—	—	39,741,492
376.12 MAINS 4" & >	27,342,292	2,258,348	(9,589)	(407,817)	—	—	—	29,183,234
378 MEASURING & REG EQUIP - GENER	880,328	65,233	—	—	—	—	—	945,561
379 MEASURING & REG EQUIP - GATE	746,476	52,913	—	—	—	—	—	799,389
380 SERVICES	33,169,058	1,992,626	(21,299)	(63,670)	—	(19)	—	35,076,696
381 METERS	2,721,678	252,139	(91,723)	—	—	—	—	2,882,093
381.2 ERT (ENCODER RECEIVER TRANS	4,293,763	451,732	(94,906)	—	—	—	—	4,650,589
382 METER INSTALLATIONS	1,302,949	174,790	(205,711)	—	—	—	—	1,272,028
382.2 ERT INSTALLATION (ENCODER	666,832	57,689	(6,524)	—	—	—	—	717,998
383 HOUSE REGULATORS	9,593	3,521	—	—	—	—	—	13,114
386 OTHER PROPERTY ON CUSTOMERS P	—	—	—	—	—	—	—	—
387.2 CALORIMETERS @ GATE STATIONS	26,630	—	—	—	—	—	—	26,630
Distribution Plant Subtotal*	108,846,915	7,472,171	(460,995)	(483,096)	—	(19)	—	115,374,976

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018
Period Ending: December 2018

Functional Class FERC Plant Account	Beginning Reserve	Provision	Retirements	Cost of Removal	Salvage and Other Credits	Transfers and Adjustments	Loss/(Gain)	Ending Reserve*
UTILITY								
General Plant								
389 LAND	—	—	—	—	—	—	—	—
390 STRUCTURES & IMPROVEMENTS	61,957	31,962	—	—	—	—	—	93,919
390.1 SOURCE CONTROL PLANT	130,732	32,691	—	—	—	—	—	163,424
391.1 OFFICE FURNITURE & EQUIPMEN	21,908	1,235	—	—	—	—	—	23,143
391.4 CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—	—	—
392 TRANSPORTATION EQUIPMENT	386,310	34,366	—	—	—	—	—	420,676
394 TOOLS AND EQUIPMENT	34,159	5,911	—	—	—	—	—	40,070
396 POWER OPERATED EQUIPMENT	117,883	6,244	(42,668)	—	—	—	—	81,459
397.3 TELEMETERING - OTHER	16,354	2,110	(16,798)	—	—	—	—	1,666
397.5 TELEPHONE EQUIPMENT	—	—	—	—	—	—	—	—
398.4 INSTALLED IN LEASED BUILDINGS	4,727	—	—	—	—	—	—	4,727
General Plant Subtotal*	774,031	114,520	(59,466)	—	—	—	—	829,085
Washington Utility Property Grand Total*	111,635,218	7,609,232	(520,461)	(483,096)	—	(19)	—	118,240,874

TOTAL SUMMARY ALL UTILITY DEPRECIATION RESERVES 12/31/2018

UTILITY	
108010	(1,353,580)
108011	85,002,119
108012	408,374
108013	(12,303)
108014	—
108015	81,459
108100	—
108102	34,114,805
SUBTOTAL*	<u>118,240,874</u>
ADD:	
108001 REMOVAL WORK IN PROCESS	1,742,869
TOTAL UTILITY DEPRECIATION*	<u><u>116,498,005</u></u>

* May not foot due to rounding.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS OPERATING REVENUES (Account 400)

1. Report below natural gas operating revenues for each prescribed account total. The amounts must be consistent with the detailed data on succeeding pages.
2. Revenues in columns (b) and (c) include transition costs from upstream pipelines.
3. Other Revenues in columns (f) and (g) include reservation charges received by the pipeline plus usage charges, less revenues reflected in columns (b) through (e). Include in columns (f) and (g) revenues for Accounts 480 - 495.

Line No.	Title of Account (a)	Revenues for Transition Costs and Take-or-Pay	Revenues for Transition Costs and Take-or-Pay	Revenues for GRI and ACA	Revenues for GRI and ACA
		Amount for Current Year (b)	Amount for Previous Year (c)	Amount for Current Year (d)	Amount for Previous Year (e)
1	480 Residential Sales				
2	481 Commercial and Industrial Sales				
3	482 Other Sales to Public Authorities				
4	483 Sales for Resale				
5	484 Interdepartmental Sales				
6	485 Intracompany Transfers				
7	487 Forfeited Discounts				
8	488 Miscellaneous Service Revenues				
9	489.1 Revenues from Transportation of Gas of Others Through Gathering Facilities				
10	489.2 Revenues from Transportation of Gas of Others Through Transmission Facilities				
11	489.3 Revenues from Transportation of Gas of Others Through Distribution Facilities				
12	489.4 Revenues from Storing Gas of Others				
13	490 Sales of Prod. Ext. from Natural Gas				
14	491 Revenues from Natural Gas Proc. by				
15	492 Incidental Gasoline and Oil Sales				
16	493 Rent from Gas Property				
17	494 Interdepartmental Rents				
18	495 Other Gas Revenues				
19	Subtotal:				
20	496 (Less) Provision for Rate Refunds				
21	TOTAL:				

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS OPERATING REVENUES (Account 400) (Continued)

4. If increases or decreases from previous year are not derived from previously reported figures, explain any inconsistencies in a footnote.
5. On Page 108, include information on major changes during the year, new service, and important rate increases or decreases.
6. Report the revenue from transportation services that are bundled with storage services as transportation service revenue.

Other Revenues Amount for Current Year (f)	Other Revenues Amount for Previous Year (g)	Total Operating Revenues Amount for Current Year (h)	Total Operating Revenues Amount for Previous Year (i)	Dekatherm of Natural Gas Amount for Current Year (j)	Dekatherm of Natural Gas Amount for Previous Year (k)	Line No.
45,624,649	51,148,494	45,624,649	51,148,494	4,876,286	5,433,630	1
20,261,453	22,441,219	20,261,453	22,441,219	2,578,045	2,775,304	2
—	—	—	—	—	—	3
—	—	—	—	—	—	4
—	—	—	—	—	—	5
—	—	—	—			6
88,715	101,454	88,715	101,454			7
103,620	110,115	103,620	110,115			8
—	—	—	—	—	—	9
—	—	—	—	—	—	10
2,428,043	2,363,753	2,428,043	2,363,753	2,059,759	2,092,517	11
—	—	—	—	—	—	12
—	—	—	—			13
—	—	—	—			14
—	—	—	—			15
9,429	15,386	9,429	15,386			16
—	—	—	—			17
(4,677,229)	(2,540,426)	(4,677,229)	(2,540,426)			18
63,838,680	73,639,995	63,838,680	73,639,995			19
—	—	—	—			20
63,838,680	73,639,995	63,838,680	73,639,995			21

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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OTHER GAS REVENUES (ACCOUNT 495)

Report below transactions of \$250,000 or more included in Account 495, Other Gas Revenues. Group all transactions below \$250,000 in one amount and provide the number of items.

Line No.	Description of Transaction (a)	Amount (b)
1	Washington Amortizations	(2,077,834)
2	Unbilled Revenue	(1,382,881)
3	Washington GREAT Program	(295,276)
4	Washington Interim Period Tax Deferral	(977,306)
5	Other Miscellaneous Items (Misc Gas Revenues - 3 items)	56,068
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30	Total	(4,677,229)

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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Depreciation, Depletion and Amortization of Gas Plant (Accts 403, 404.1, 404.2, 404.3, 405) (Except Amortization of Acquisition Adjustments)

1. Report in Section A the amounts of depreciation expense, depletion and amortization for the accounts indicated and classified according to the plant functional groups shown.
2. Report in Section B, column (b) all depreciable or amortizable plant balances to which rates are applied and show a composite total. (If more desirable, report by plant account, subaccount or functional classifications other than those pre-printed in column (a). Indicate in a footnote the manner in which column (b) balances are obtained. If average balances are used, state the method of averaging used. For column (c) report available information for each plant functional classification listed in column (a). If composite depreciation accounting is used, report available information called for in columns (b) and (c) on this basis. Where the unit-of-production method is used to determine depreciation charges, show in a footnote any revisions made to estimated gas reserves.
3. If provisions for depreciation were made during the year in addition to depreciation provided by application of reported rates, state in a footnote the amounts and nature of the provisions and the plant items to which related.

See following pages

RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL

Period Beginning: January 2018

Period Ending: December 2018

Functional Class	Beginning			Cost of	Salvage and	Transfers and		Ending
FERC Plant Account	Reserve	Provision	Retirements	Removal	Other Credits	Adjustments	Loss/(Gain)	Reserve*
UTILITY								
Intangible Plant								
301 ORGANIZATION	—	—	—	—	—	—	—	—
302 FRANCHISES & CONSENTS	—	—	—	—	—	—	—	—
303.1 COMPUTER SOFTWARE	3,144	—	—	—	—	—	—	3,144
303.2 CUSTOMER INFORMATION SYSTEM	1,863,073	—	—	—	—	—	—	1,863,073
303.3 INDUSTRIAL & COMMERCIAL BIL	—	—	—	—	—	—	—	—
303.4 CRMS	—	—	—	—	—	—	—	—
303.5 POWERPLANT SOFTWARE	—	—	—	—	—	—	—	—
Intangible Plant Subtotal*	1,866,216	—	—	—	—	—	—	1,866,216
Transmission Plant								
367 MAINS	148,056	22,541	—	—	—	—	—	170,597
Transmission Plant Subtotal*	148,056	22,541	—	—	—	—	—	170,597
Distribution Plant								
374.1 LAND	—	—	—	—	—	—	—	—
374.2 LAND RIGHTS	22,559	1,756	—	—	—	—	—	24,315
375 STRUCTURES & IMPROVEMENTS	36,933	4,905	—	—	—	—	—	41,838
376.11 MAINS < 4"	37,627,825	2,156,521	(31,244)	(11,610)	—	—	—	39,741,492
376.12 MAINS 4" & >	27,342,292	2,258,348	(9,589)	(407,817)	—	—	—	29,183,234
378 MEASURING & REG EQUIP - GENER	880,328	65,233	—	—	—	—	—	945,561
379 MEASURING & REG EQUIP - GATE	746,476	52,913	—	—	—	—	—	799,389
380 SERVICES	33,169,058	1,992,626	(21,299)	(63,670)	—	(19)	—	35,076,696
381 METERS	2,721,678	252,139	(91,723)	—	—	—	—	2,882,093
381.2 ERT (ENCODER RECEIVER TRANS	4,293,763	451,732	(94,906)	—	—	—	—	4,650,589
382 METER INSTALLATIONS	1,302,949	174,790	(205,711)	—	—	—	—	1,272,028
382.2 ERT INSTALLATION (ENCODER	666,832	57,689	(6,524)	—	—	—	—	717,998
383 HOUSE REGULATORS	9,593	3,521	—	—	—	—	—	13,114
386 OTHER PROPERTY ON CUSTOMERS P	—	—	—	—	—	—	—	—
387.2 CALORIMETERS @ GATE STATIONS	26,630	—	—	—	—	—	—	26,630
Distribution Plant Subtotal*	108,846,915	7,472,171	(460,995)	(483,096)	—	(19)	—	115,374,976

**RESERVE BALANCES AND ACTIVITY BY FUNCTIONAL CLASS
NW NATURAL**

Period Beginning: January 2018

Period Ending: December 2018

Functional Class	Beginning			Cost of	Salvage and	Transfers and		Ending
FERC Plant Account	Reserve	Provision	Retirements	Removal	Other Credits	Adjustments	Loss/(Gain)	Reserve*
UTILITY								
General Plant								
389 LAND	—	—	—	—	—	—	—	—
390 STRUCTURES & IMPROVEMENTS	61,957	31,962	—	—	—	—	—	93,919
390.1 SOURCE CONTROL PLANT	130,732	32,691	—	—	—	—	—	163,424
391.1 OFFICE FURNITURE & EQUIPMEN	21,908	1,235	—	—	—	—	—	23,143
391.4 CUSTOMER INFORMATION SYSTEM	—	—	—	—	—	—	—	—
392 TRANSPORTATION EQUIPMENT	386,310	34,366	—	—	—	—	—	420,676
394 TOOLS AND EQUIPMENT	34,159	5,911	—	—	—	—	—	40,070
396 POWER OPERATED EQUIPMENT	117,883	6,244	(42,668)	—	—	—	—	81,459
397.3 TELEMETERING - OTHER	16,354	2,110	(16,798)	—	—	—	—	1,666
397.5 TELEPHONE EQUIPMENT	—	—	—	—	—	—	—	—
398.4 INSTALLED IN LEASED BUILDINGS	4,727	—	—	—	—	—	—	4,727
General Plant Subtotal*	774,031	114,520	(59,466)	—	—	—	—	829,085
Washington Utility Property Grand Total*	111,635,218	7,609,232	(520,461)	(483,096)	—	(19)	—	118,240,874

TOTAL SUMMARY ALL UTILITY DEPRECIATION RESERVES 12/31/2018

UTILITY	
108010	(1,353,580)
108011	85,002,119
108012	408,374
108013	(12,303)
108014	—
108015	81,459
108100	—
108102	34,114,805
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ADD:	
108001 REMOVAL WORK IN PROCESS	1,742,869
TOTAL UTILITY DEPRECIATION*	<u><u>116,498,005</u></u>

* May not foot due to rounding.

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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GAS ACCOUNT - NATURAL GAS

- The purpose of this schedule is to account for the quantity of natural gas received and delivered by the respondent.
- Natural gas means either natural gas unmixed or any mixture of natural and manufactured gas.
- Enter in column (c) the Dth as reported in the schedules indicated for the items of receipts and deliveries.
- Indicate in a footnote the quantities of bundled sales and transportation gas and specify the line on which such quantities are listed.
- If the respondent operates two or more systems which are not interconnected, submit separate pages for this purpose. Use copies of pages 520.
- Indicate by footnote the quantities of gas not subject to Commission regulation which did not incur FERC regulatory costs by showing (1) the local distribution volumes another jurisdictional pipeline delivered to the local distribution company portion of the reporting pipeline (2) the quantities that the reporting pipeline transported or sold through its local distribution facilities or intrastate facilities and which the reporting pipeline received through gathering facilities or intrastate facilities, but not through any of the interstate portion of the reporting pipeline, and (3) the gathering line quantities that were not destined for interstate market of that were not transported through any interstate portion of the reporting pipeline.
- Indicate in a footnote the specific gas purchase expense account(s) and related to which the aggregate volumes reported on Line 3 relate.
- Indicate in a footnote (1) the system supply quantities of gas that are stored by the reporting pipeline, during the reporting year and also reported as sales, transportation and compression volumes by the reporting pipeline during the same reporting year, (2) the system supply quantities of gas that are stored by the reporting pipeline during the reporting year which the reporting pipeline intends to sell or transport in a future reporting year, and (3) contract storage quantities.
- Indicate the volumes of pipeline production field sales that are included in both the company's total sales figure and the company's total transportation figure. Add additional information as necessary to the footnotes.

Line No.	Item (a)	Ref. Page No. (b)	Total Amount of Dth (c)
1	NAME OF SYSTEM:		
2	GAS RECEIVED		
3	Gas Purchases (Accounts 800-805)		7,385,419
4	Gas of Others Received for Gathering (Account 489.1)	303	N/A
5	Gas of Others Received for Transmission (Account 489.2)	305	N/A
6	Gas of Others Received for Distribution (Account 489.3) Transportation	301	2,059,759
7	Gas of Others Received for Contract Storage (Account 489.4)	307	N/A
8	Gas of Other Received for Production/Extraction/Processing (Account 490 and 491)		N/A
9	Exchanged Gas Received from Others (Account 806)	328	N/A
10	Gas Received as Imbalances (Account 806)	328	N/A
11	Receipts of Respondent's Gas Transported by Others (Account 858)	332	N/A
12	Other Gas Withdrawn from Storage (Explain)	512	—
13	Gas Received from Shippers as Compressor Station Fuel		—
14	Gas Received from Shippers as Lost and Unaccounted for		—
15	Other Receipts (Specify) LPG		—
16	Total Receipts (Total of lines 3 thru 14)		9,445,178
17	GAS DELIVERED		
18	Gas Sales (Accounts 480-495)		7,576,149
19	Deliveries of Gas Gathered for Others (Account 489.1)	303	N/A
20	Deliveries of Gas Transported for Others (Account 489.2)	305	N/A
21	Deliveries of Gas Distributed for Others (Account 489.3) Transportation	301	2,059,759
22	Deliveries of Contract Storage Gas (Account 489.4)	307	N/A
23	Gas of Other Delivered for Production/Extraction/Processing (Account 490 and 491)		N/A
24	Exchange Gas Delivered to Others (Account 806)	328	N/A
25	Gas Delivered as Imbalances (Account 806)	328	N/A
26	Deliveries of Gas to Others for Transportation (Account 858)	332	N/A
27	Other Gas Delivered to Storage (Explain)	512	—
28	Gas Used for Compressor Station Fuel	331	N/A
29	Other Deliveries (Specify): Unbilled	331	(121,819)
30	Total Deliveries (Total of lines 17 thru 27)		9,514,089
31	GAS LOSSES AND GAS UNACCOUNTED FOR		
32	Gas Losses and Gas Unaccounted For		(68,911)
33	TOTALS		
34	Total Deliveries, Gas Losses & Unaccounted for (Total of lines 30 and 32)		9,445,178

Name of Respondent Northwest Natural Gas Company	This Report is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission	Date of Report (Mo, Da, Yr)	Year of Report December 31, 2018
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EXECUTIVE COUNT BY CLASS AND TOTAL SALARIES BY CLASS

1. Pursuant to RCW 80.04.080, report below the number of employees by class (per company definition to be provided),

Line No.	Employee Class (a)	Number of Employees (b)	Total Salaries and Wages Paid Each Class ⁽¹⁾ (c)
1	Officers & Exempt	532	55,849,250
2	Bargaining Unit	635	48,748,629
3			
4			
5			
Total		1,167	104,597,879

1) Salaries and wages do not include bonuses paid.

1859-2019

2018 ANNUAL REPORT



**NW Natural
HOLDINGS™**

160 YEARS

**OF BUILDING
THE FUTURE
WE IMAGINE**



TO OUR SHAREHOLDERS

OVER 160 YEARS, our success has hinged on two things: delivering outstanding service safely and reliably, and imagining how we can grow for the future. These strategies served us well in 2018, contributing to another strong year.

Our 1,200 employees have built on this legacy with dedication, expertise and creative thinking. It was a year of key investments in our natural gas distribution system—which is one of the most modern in the nation; of anticipating customers' needs to drive conversions and install natural gas in our largest multifamily development to date; and of building on our foundation for the future by taking action on our low-carbon initiative, reorganizing into our new holding company and diversifying into the water business.

It was also a year of reflection as we prepared to celebrate our 160th anniversary on January 7, 2019. Since 1859, NW Natural Gas Company has grown from serving 49 street lighting customers in Portland, Oregon, to providing natural gas service to approximately two million people in Oregon and Washington through 750,000 meters, and distributing water to approximately 22,000 people in the greater Pacific Northwest.

While there has been much change over 16 decades, we have held fast to core principles that are embedded in who we are. The innovative thinking that inspired our founders to invest in a frontier community and allowed us to transition from manufactured gas to natural gas. The commitment to safety that drove us to replace all our cast iron and bare steel pipe. The unwavering service ethic that delivers the highest level of care to our customers. And the commitment to creating long-term shareholder value.

We know the values and principles that have made us successful in our first 160 years will be critical as we create the next chapter in our history.

 President and CEO David Anderson
at the New York Stock Exchange on
NW Natural's 160th Anniversary.

2018 HIGHLIGHTS

- Reported 2018 consolidated net income of \$64.6 million or \$2.24 per share, compared to a net loss of \$1.93 per share for 2017 and adjusted 2017 consolidated net income¹ of \$2.24 per share.
- Added over 12,500 new natural gas meters for an annual growth rate of 1.7 percent.
- Ranked first among large utilities in the West in the J.D. Power Gas Utility Residential Customer Satisfaction Study and third in the nation. We also earned the highest customer satisfaction score among utilities in the West in the J.D. Power Gas Utility Business Customer Satisfaction Study.
- Completed the first Oregon general rate case in six years, resulting in an approximately \$10 million after-tax net benefit to the company and a decline in Oregon residential customer rates of 2.1 percent when combined with the Oregon annual Purchase Gas Adjustment.
- Reduced residential natural gas customer rates in Washington for the fourth straight year, with the average residential customer experiencing a 7.2 percent decrease starting Nov. 1, 2018.
- Filed the first Washington general rate case in a decade to recover costs and investments made to support our fastest growing community, Clark County, Washington.
- Invested over \$200 million of capital expenditures to support the natural gas utility's growth, system reliability and improvements.
- Completed key aspects of the North Mist gas storage expansion, one of the largest projects in our history.
- Reorganized into a holding company structure to allow us to continue responding to growth opportunities and efficiently expand our water business.
- Closed or signed water transactions that serve approximately 43,000 people through 17,000 connections.
- Increased dividends paid for the 63rd consecutive year, one of the longest dividend increase records of any company on the NYSE.

¹ Adjusted 2017 consolidated EPS is a non-GAAP measure and excludes the noncash effects of the Gill Ranch impairment of \$192.5 million pre-tax and the noncash benefit from tax reform of \$21.4 million recognized in 2017. See Financial Overview on page 8 for reconciliation.



CORPORATE PROFILE

NW NATURAL HOLDINGS (NYSE: NWN)

is headquartered in Portland, Oregon, and owns a regulated natural gas distribution company, NW Natural, several water distribution companies through its subsidiary, NW Natural Water, and other business interests and activities.

« NW Natural field technician Cari Zimmerman providing service to a customer.

NW NATURAL GAS

Investing in Safety

As a core value, safety is our greatest responsibility to our customers, our employees and the communities we serve.

In 2018, we strengthened the safety and capacity of our pipeline system by investing in reinforcement projects in our fastest growing service territory, Clark County, Washington and in Eugene, Oregon. We also upgraded our two liquefied natural gas (LNG) facilities in Portland and Newport to ensure we can continue to serve customers on the coldest winter days, and we completed inline inspections of our pipelines to support transmission integrity.

NW Natural field crews continue to meet rigorous safety metrics, responding to damages and odors within tight time frames. Field employees regularly complete scenario-based training at our state-of-the-art training center in Sherwood, Oregon, where they update their skills, get hands-on experience and practice responding to a natural gas emergency. Last year, we also hosted a number of natural gas safety trainings for first responders in our service territory.

To better enable the company to continue to operate after an earthquake, NW Natural will move in 2020 to a headquarters that is being built to be operational after a seismic event. And as part of our facilities master plan, we continue to upgrade or replace our other facilities with seismic resiliency, safety and efficiency in mind.

Today, our safety investments extend beyond our pipelines and facilities to technologies and expertise that are critical to protecting our online systems infrastructure and enhancing cybersecurity.



NW Natural construction employee Cameron Marcom working on a reinforcement project in Sherwood, Oregon.

Driving Growth

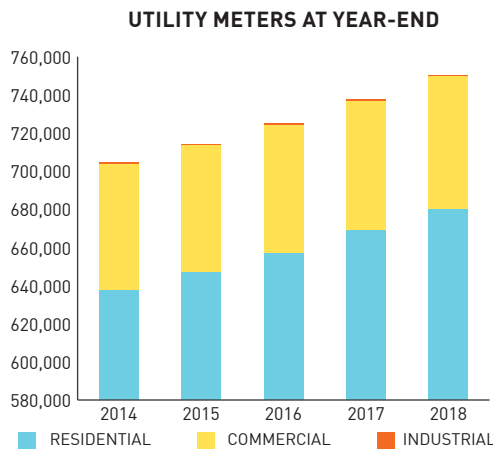
The Pacific Northwest continued to experience an economic expansion in 2018. In Oregon, where nearly 90 percent of our customers are located, we saw job and wage growth, low unemployment and strong in-migration during the past year.

The economic expansion led to strong construction of single-family homes, and continued development of multifamily buildings in cities that are focusing on urban density. In 2018, we achieved a 50 percent year-over-year increase in multifamily meters, which included our largest individually metered multifamily project to date, installing natural gas to 385 units in a new development in Northwest Portland.

With a 63 percent residential market share in our service territory, we also continue to focus on data-driven marketing to proactively target residents who could benefit from converting to natural gas. With our proprietary web-based tool, we are able to validate a customer's interest in natural gas and easily determine if service is currently available to

their home. We can also identify neighborhoods that would benefit from main extensions and analyze the cost of conversion for prospective customers to ease the conversion process. Last year, we converted over 3,500 meters to natural gas.

With a strong economy and these innovative tools, we added over 12,500 new meters to the natural gas system for an annual growth rate of 1.7 percent in 2018.



We added 12,547 new meters to our system in 2018. NW Natural now serves approximately two million people through more than 750,000 meters.

Number One in Affordability and Customer Satisfaction

Natural gas commodity prices continue to decline nationally, making natural gas the most affordable fuel choice and boosting our competitive position and customer satisfaction. In the typical home we serve, natural gas offers a price advantage of up to 70 percent over an electric or oil furnace and about a 30 percent advantage over a heat pump.

In November 2018, we were able to pass cost savings on to customers for the fourth year in a row. The typical Oregon residential customer's rates declined by 2.1 percent, even after incorporating the initial increase from the Oregon general rate case order in 2018. Washington residential customers saw rates drop 7.2 percent.

Our cost advantage, coupled with high-quality service, continues to resonate with customers. For the sixth year in a row, customers ranked NW Natural first in the West among large gas utilities in the J.D. Power Residential Customer Satisfaction Study. We earned the third highest score in the nation — the 14th time in 17 years that we scored in the top five. We also ranked first in the West and fourth in the nation in the annual business study.

These results are a testament to our customer-centric culture, and I'm very proud of all of our employees who live our service ethic every day.

Working Productively with Regulators

In December 2017, we filed our first rate case in Oregon in six years. After 10 months of review with stakeholders, the Public Utility Commission of Oregon (PUC) ordered an overall \$23.4 million revenue requirement increase from previous rates effective Nov. 1, 2018. The commission also approved a \$300 million increase in rate base from the last Oregon rate case in 2012, bringing our total rate base to \$1.186 billion.

After considering the conservation tariff and tax benefits from the Federal Tax Cuts and Jobs Act, the PUC ruling represents an expected net benefit to NW Natural of about \$10 million after-tax.

In December 2018, NW Natural filed its first Washington rate case since 2008. We requested an \$8.3 million increase to base rates to cover our costs to operate and maintain the natural gas distribution system in our fast-growing Washington service territory. Since 2008, Washington customer rates have declined nearly 40 percent due to lower natural gas prices. The Washington Public Utility Commission and other stakeholders will review our filing through a process that could take up to 11 months, with new rates requested to be effective Dec. 1, 2019.

Building the Future

With just a single pipeline serving our region, our Mist gas storage facility is extremely valuable in the Pacific Northwest and has played an essential role in ensuring reliable service to our customers since 1989. The value of this facility was once again proven in October 2018, when a major pipeline incident in Canada disrupted natural gas service in Canada and Washington. The Mist facility was a critical resource that allowed us to serve our customers, as well as other local utilities.

We believe natural gas storage is a crucial asset that can also help our region transition to a low-carbon future. Stable energy from storage can

be drawn on any time, allowing the region to integrate more wind and solar power into the grid while ensuring reliability. That's why we are expanding our storage capacity with the North Mist project. The expansion includes providing about 2.5 billion cubic feet of available storage, an additional compressor station and a new dedicated 13-mile pipeline to connect NW Natural's facility to Portland General Electric's (PGE) Port Westward industrial park. PGE can draw on the facility rapidly to integrate more wind power into the grid, knowing they have 24/7 reliable natural gas backup.

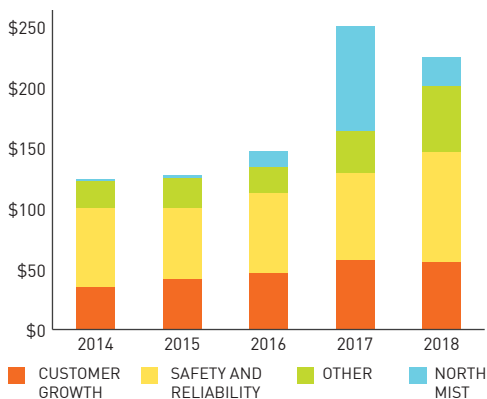
To date, we've completed the pipeline and all aspects of the operation and are in the final stages of extensive tests on this one-of-a-kind facility. We expect the expansion to be in service by spring 2019, with an estimated cost of \$149 million. This investment will immediately be rate-based under an established tariff schedule already approved by the PUC.

The facility is contracted to PGE for an initial 30-year period, with renewal options of up to 50 years beyond that.

Construction nearly complete on the North Mist Expansion Project near Mist, Oregon.



CAPITAL EXPENDITURES
(in millions)



⚡ Total investment in capital expenditures during 2018 was more than \$200 million on an accrual basis.

Creating a Low-Carbon Future

Environmental stewardship is one of NW Natural’s core values, and it is vital to the communities we serve.

Our drive to reduce our carbon footprint began in the 1980s when we started replacing our cast iron and bare steel pipe to create a tighter system with lower emissions. In the 2000s, we were one of the first U.S. utilities to adopt a rate structure that encourages energy conservation and to institute a carbon offset program for our customers. When the North Mist project comes online in 2019, we will play a key role in integrating more renewables into our region’s energy supply.

But we know we can do even more to address climate change. That’s why we launched NW Natural’s Low Carbon Pathway initiative, setting a voluntary goal of 30 percent carbon emissions savings by 2035.

Our plan to reach our goal includes initiatives within our own operations, with our customers and in the transportation sector. Over the past two years, we have identified new opportunities to reduce emissions through greater energy efficiency in our operations and in our customers’

homes and businesses, in return-to-fleet vehicles, and with renewable natural gas.

Renewable natural gas is produced from organic materials like wood, food, agricultural and even human waste. As these materials decompose, they produce methane that can be captured and conditioned to pipeline quality.

Last year, the Oregon Department of Energy released a report showing nearly 50 billion cubic feet of renewable natural gas technical potential in our state — equivalent to all of Oregon’s residential gas throughput. This resource gives us a great opportunity to reduce the carbon intensity of our product and help our communities solve their waste problems in the process. To that end, we are pleased to be working on several local projects that will interconnect and flow renewable natural gas onto our system.

In 2018, a study commissioned by NW Natural and conducted by independent consulting firm, Energy and Environmental Economics (E3) explored how our region could meet dramatic emission reduction goals.

To date, all Pacific Northwest deep decarbonization studies agree that getting to an 80 percent carbon reduction goal by 2050 will be challenging and must involve using energy more efficiently, ramping up renewable resources, electrifying passenger vehicles, and aggressively developing biofuels, including renewable natural gas. But this is the first time a closer look has been taken at how energy needs can be met to serve homes and businesses on the coldest winter days in the region.

The new research shows that by adding 25 percent renewable natural gas into the existing natural gas system and delivering it to heat homes, the region can achieve its climate goals without a substantial build out of new power plants.

We believe the results validate NW Natural is on the right path by helping customers improve energy efficiency, by including renewable natural gas in our supply mix, and by exploring cutting-edge technologies like Power to Gas.

We look forward to continuing to work with our regulators and other stakeholders on finding new, innovative solutions that provide climate benefits for our customers at a reasonable cost.

⚡ Filling up a City of Portland vehicle with Compressed Natural Gas at the Columbia Boulevard Wastewater Treatment Plant.



NW NATURAL WATER

Diversifying into Water

In December 2017 we announced our intention to expand into the water utility business — an excellent strategic fit for us. The water and wastewater sector aligns well with our conservative risk profile and offers diversification, stable cash flows and substantial long-term investment opportunities.

In addition, our core competencies of customer service, developing and managing critical distribution infrastructure safety and reliably, environmental stewardship, and constructive regulatory engagement can be leveraged in the water business.

Executing a Disciplined Strategy

Since 2017, our subsidiary NW Natural Water has acquired four water distribution utilities, adding about 7,400 connections that serve approximately 22,000 people across the Pacific Northwest. In October, we announced our largest acquisition to date, which would add 9,400 water and wastewater connections in Sunriver, Oregon. This acquisition is another meaningful step for our growing water business and adds wastewater expertise to our portfolio.

Once outstanding transactions close, we will have invested nearly \$70 million in the water sector. These acquisitions are expected to be accretive to our earnings in the first full year of their operations.

We believe the water sector has tremendous investment potential in the coming years as aging infrastructure will need to be replaced. We intend to continue our disciplined and focused approach in pursuing our water strategy.

IMAGINING THE FUTURE

Over the last 160 years, we've risen to meet the energy needs of a region that has evolved from its pioneer roots to a thriving hub for innovation in technology, engineering and sportswear.

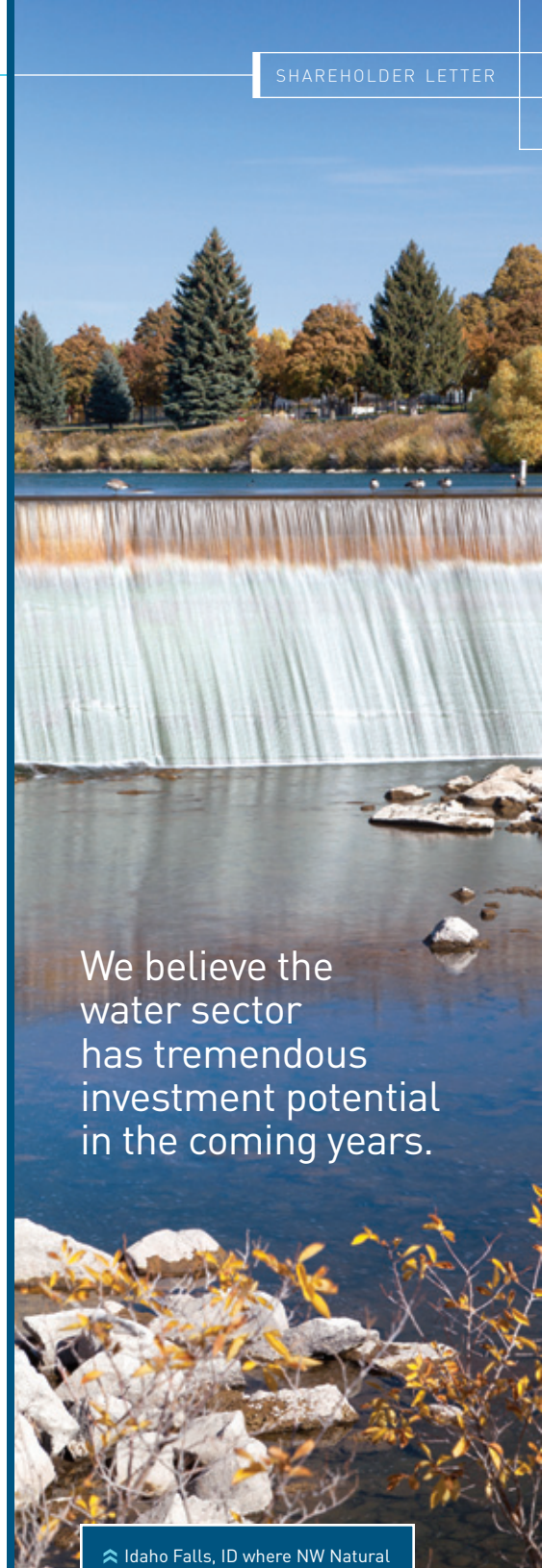
While a lot has changed since 1859, our values and focus on delivering outstanding service safely and reliably to our customers has been unwavering.

As we imagine and create our next 160 years, we will hold fast to our core principles, innovative thinking, commitment to safety, and dedication to customers and shareholders.

I appreciate your confidence in our mission and vision for the future. We look forward to working on your behalf in the year ahead, and for many years to come.



David H. Anderson
President and Chief Executive Officer



We believe the water sector has tremendous investment potential in the coming years.

Idaho Falls, ID where NW Natural Water recently purchased Falls Water Company.

FINANCIAL OVERVIEW

2018 2017

KEY HIGHLIGHTS

Consolidated financial facts (\$000):

Operating revenues	706,143	755,038
Net income from continuing operations	67,311	72,073
Net income (loss)	64,569	(55,623)
Adjusted net income	64,569	64,470 ²

COMMON STOCK

Shareholder data (000):

Average shares outstanding—diluted	28,873	28,753
Year-end shares outstanding	28,880	28,736

Per share data (\$):

Diluted earnings (loss)	2.24	(1.93)
Adjusted diluted earnings	2.24	2.24 ²
Dividends paid	1.89	1.88
Book value at year-end	26.41	25.85
Market value at year-end	60.46	59.65

NATURAL GAS DISTRIBUTION OPERATING HIGHLIGHTS

Gas deliveries (000 therms)	1,128,203	1,240,293
Margin ¹ (\$000)	383,696	392,632
Degree days	2,313	3,114
Meters at year-end	750,421	737,874
Employees at year-end	1,167	1,146

WATER OPERATING HIGHLIGHTS

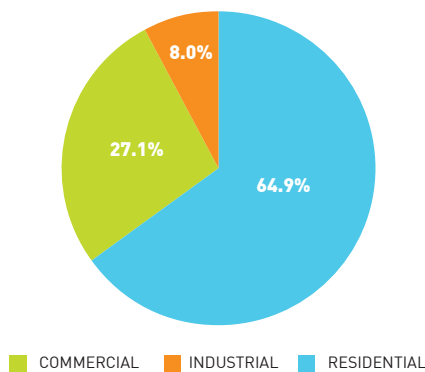
Connections at year-end	7,400	-
Employees at year-end	16	-

DIVIDENDS PAID ON COMMON STOCK (per share)

Payment date		
February	\$0.4725	\$0.4700
May	0.4725	0.4700
August	0.4725	0.4700
November	0.4750	0.4725
Total dividends paid	<u>\$1.8925</u>	<u>\$1.8825</u>



2018 NATURAL GAS DISTRIBUTION MARGIN (By Class)



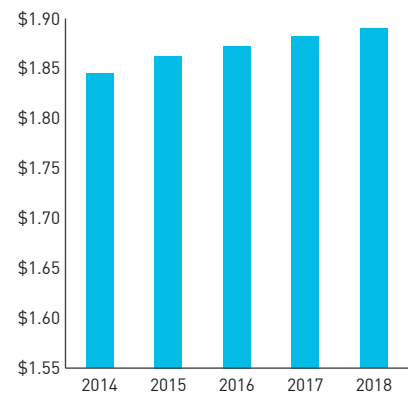
Margins from residential and commercial meters were 92% of overall margin in 2018.

NATURAL GAS DISTRIBUTION MARGIN (in \$000)



Natural Gas Distribution margin decreased \$8.9 million to \$383.7 million in 2018.

DIVIDENDS PAID PER SHARE (\$)



Annual dividends paid per share in 2018 increased for the 63rd consecutive year. The current indicated annual dividend is \$1.90 per share.

¹ References to the margin refer to natural gas distribution segment.

² Adjusted consolidated net income and EPS for 2017 are non-GAAP financial measures that exclude the Gill Ranch impairment of \$192.5 million pre-tax or \$141.5 million after-tax and the \$21.4 million benefit related to implementing tax reform. The after-tax impairment is calculated using the combined federal and state statutory tax rate of 26.5%. EPS is calculated using 28.8 million diluted shares.



DAVID H. ANDERSON
President and Chief Executive Officer, NW Natural Holdings and NW Natural



TIMOTHY P. BOYLE
President and Chief Executive Officer, Columbia Sportswear Company



MARTHA L. "STORMY" BYRUM
Chief Executive Officer, Cori Investment Advisors, LLC



JOHN D. CARTER
Chairman of the Board, Schnitzer Steel Industries, Inc.



MARK S. DODSON
Former Chief Executive Officer, NW Natural



C. SCOTT GIBSON
President, Gibson Enterprises



TOD R. HAMACHEK
Chairman of the Board, NW Natural Holdings and NW Natural



JANE L. PEVERETT
Former President and Chief Executive Officer, British Columbia Transmission Corporation



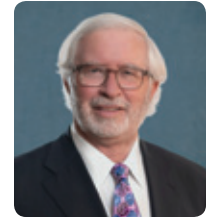
KENNETH THRASHER
Chairman of the Board, Compli Corporation



MALIA H. WASSON
Former Executive Vice President of Commercial Banking, U.S. Bank



CHARLES A. WILHOITE
Managing Director, Wilamette Management Associates, Inc.



STEVEN E. WYNNE
Independent Director, NW Natural

NW NATURAL SENIOR MANAGEMENT



DAVID H. ANDERSON¹
President and Chief Executive Officer



FRANK BURKHARTSMEYER¹
Senior Vice President and Chief Financial Officer



LEA ANNE DOOLITTLE
Senior Vice President and Chief Administrative Officer



JAMES DOWNING
Vice President and Chief Information Officer



SHAWN M. FILIPPI^{1,2}
Vice President, Chief Compliance Officer and Corporate Secretary



KIMBERLY HEITING
Senior Vice President Operations and Chief Marketing Officer



JON HUDDLESTON
Vice President Engineering and Utility Operations



THOMAS J. IMESON
Vice President Public Affairs



JUSTIN B. PALFREYMAN²
Vice President, Strategy and Business Development, and President, NW Natural Water



MELINDA ROGERS
Vice President, Chief Human Resources and Diversity Officer



LORI L. RUSSELL
Vice President Utility Services



MARDILYN SAATHOFF¹
Senior Vice President, Regulation and General Counsel



BRODY J. WILSON^{1,2}
Vice President, Chief Accounting Officer, Controller and Treasurer

¹ Also officers at NW Natural Holdings.
² Also officers at NW Natural Water.

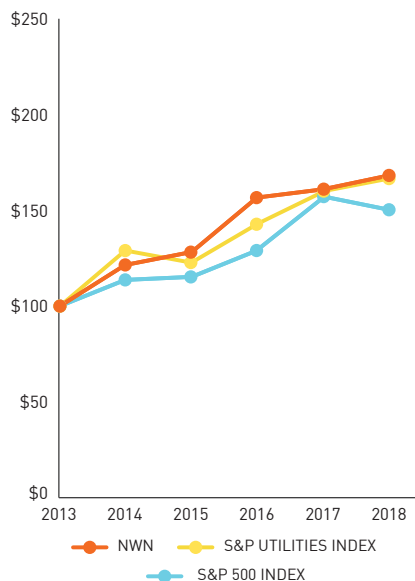
NOTICE OF ANNUAL MEETING

The 2019 Annual Meeting will be held at 2 p.m., Thursday, May 23, 2019 at the company's headquarters, One Pacific Square, 220 NW 2nd Ave., 4th floor, Portland, Oregon 97209. A meeting notice and proxy statement will be sent to all shareholders in April. If you plan to attend the annual meeting, you will need to detach and retain the admission ticket attached to your proxy card mailed or emailed to you with the notice of the annual meeting and the proxy statement. As space is limited, you may bring only one guest to the meeting. If you hold your stock through a broker, bank or other nominee, please bring a legal proxy or other evidence to the meeting showing that you owned NW Natural Holdings Common Stock as of the record date, April 4, 2019, and we will provide you with an admission ticket. A form of government-issued photograph identification will be required for both you and your guest to enter the meeting.

Dividend reinvestment and direct stock purchase plan

Participants may make an initial investment in company stock and common shareholders of record may reinvest all or part of their dividends in additional shares under the company's plan. Cash purchases may also be made. Participants in the plan bear the cost of brokerage fees and commissions for shares purchased on the open market to fulfill purchases under the plan. A prospectus will be sent upon request.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN (Based on \$100 invested on 12/31/2013)



⬆ Total shareholder return (annualized) over the five years ending December 31, 2018 was 10.96%, compared to Standard & Poor's (S&P) Utilities Index return of 10.74%, and the S&P 500 Index return of 8.48%. Periods before October 1, 2018 relate to NW Natural and periods after that time relate to NW Natural Holdings.

Scheduled dividend payment dates

Subject to Board approval, the following dates are scheduled for dividend payment:
February 15, 2019
May 15, 2019
August 15, 2019
November 15, 2019

Certifications

The Chief Executive Officer certified to the NYSE on June 22, 2018, that as of that date, he was not aware of any violation by the company of NYSE's corporate governance listing standards, and the company had filed with the Securities and Exchange Commission (SEC), as exhibits 31.1 and 31.2 to its Annual Report on Form 10-K for the year ended December 31, 2017, the certificates of the Chief Executive Officer and the Chief Financial Officer of the company certifying the quality of the company's public disclosure. For the year ended December 31, 2018, the certificates of the Chief Executive Officer and Chief Financial Officer are attached as exhibits 31.1 and 31.2 to the Form 10-K included in this Annual Report.

Contact the NW Natural Holdings Board

Concerns may be directed to the nonmanagement directors by writing to NW Natural Holdings Board of Directors, c/o Corporate Secretary.

Forward-looking statements

The statements made in this Annual Report that are not purely historical, including statements regarding plans, goals, strategies, success, opportunities, dividends, earnings, financial value, financial results, future events, performance, stability, continuation of past practices, future demand or preference for gas, the future of clean energy and the role of natural gas in it, renewable natural gas, power to

gas, commodity costs, customer rates and service, competitive position, revenues, customer and business growth, capital expenditures, Mist storage expansion project, including but not limited to cost and timelines, emergency preparedness, cybersecurity, system reliability, safety, business continuity, environmental stewardship, regulatory proceedings and actions, including, but not limited to our rate case and the timing and results thereof, rate recovery, effects of regulatory mechanisms, the regional economy, water utility strategy, planned acquisitions and integration thereof, operating plans of third parties, technology development, multifamily sector, system modernization and efficiency, and effects of legislation, are forward-looking statements within the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. NW Natural's actual results could differ materially from those anticipated in these forward-looking statements as a result of risks and uncertainties, including those described in the attached report on Form 10-K. For a more complete description of these risks and uncertainties, please refer to our filings with the SEC on Forms 10-K and 10-Q.

Request for publications

The following publications may be obtained without charge by contacting the Corporate Secretary at NW Natural's address: Annual Report; Form 10-K; Form 10-Q; Form 8-Ks; Corporate Governance Standards; Director Independence Standards; Code of Ethics; and Board Committee Charters. These publications, as well as other filings made with the SEC, are also available on our website at nwnaturalholdings.com. Our SEC filings are also available through the SEC's website (sec.gov).



PRODUCED BY NW NATURAL'S CORPORATE COMMUNICATIONS

PHOTO CREDITS: ANDY BAUER - page 5, North Mist expansion pipeline; DALE HEADRICK - page 3, service technician; page 4, construction employee; GARY MATOSO page 6, CNG filling station; ROBBIE MCCLARAN - page 9, select portraits; OTHER - page 2, David Anderson, courtesy NYSE • **PRINTING:** Donnelley Financial Solutions

Form 10-K
Annual Report

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549
FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
 For the transition period from _____ to _____

Commission file number 1-38681

Commission file number 1-15973



NORTHWEST NATURAL HOLDING COMPANY

(Exact name of registrant as specified in its charter)

Oregon

82-4710680

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

220 N.W. Second Avenue, Portland, Oregon 97209
 (Address of principal executive offices) (Zip Code)
 Registrant's telephone number: (503) 226-4211

NORTHWEST NATURAL GAS COMPANY

(Exact name of registrant as specified in its charter)

Oregon

93-0256722

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

220 N.W. Second Avenue, Portland, Oregon 97209
 (Address of principal executive offices) (Zip Code)
 Registrant's telephone number: (503) 226-4211

Securities registered pursuant to Section 12(b) of the Act:

<u>Registrant</u>	<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Northwest Natural Holding Company	Common Stock	New York Stock Exchange
Northwest Natural Gas Company	None	None

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

NORTHWEST NATURAL HOLDING COMPANY Yes No NORTHWEST NATURAL GAS COMPANY Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

NORTHWEST NATURAL HOLDING COMPANY Yes No NORTHWEST NATURAL GAS COMPANY Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

NORTHWEST NATURAL HOLDING COMPANY Yes No NORTHWEST NATURAL GAS COMPANY Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

NORTHWEST NATURAL HOLDING COMPANY Yes No NORTHWEST NATURAL GAS COMPANY Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

NORTHWEST NATURAL HOLDING COMPANY

Large Accelerated Filer]
Accelerated Filer]
Non-accelerated Filer]
Smaller Reporting Company]
Emerging Growth Company]

NORTHWEST NATURAL GAS COMPANY

Large Accelerated Filer]
Accelerated Filer]
Non-accelerated Filer]
Smaller Reporting Company]
Emerging Growth Company]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

NORTHWEST NATURAL HOLDING COMPANY Yes] No] NORTHWEST NATURAL GAS COMPANY Yes] No]

As of the end of the second quarter of 2018, the aggregate market value of the shares of Common Stock of Northwest Natural Gas Company (based upon the closing price of these shares on the New York Stock Exchange on June 29, 2018) held by non-affiliates was \$1,814,276,842.

At February 22, 2019, 28,896,471 shares of Northwest Natural Holding Company's Common Stock (the only class of Common Stock) were outstanding and 28,844,190 shares of Northwest Natural Gas Company's Common Stock (the only class of Common Stock) were outstanding, all of which were held by Northwest Natural Holding Company.

This combined Form 10-K is separately filed by Northwest Natural Holding Company and Northwest Natural Gas Company. Information contained in this document relating to Northwest Natural Gas Company is filed by Northwest Natural Holding Company and separately by Northwest Natural Gas Company. Northwest Natural Gas Company makes no representation as to information relating to Northwest Natural Holding Company or its subsidiaries, except as it may relate to Northwest Natural Gas Company and its subsidiaries.

Northwest Natural Gas Company meets the conditions set forth in General Instruction (I)(1)(a) and (b) of Form 10-K and is therefore filing this report with the reduced disclosure format.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Northwest Natural Holding Company's Proxy Statement, to be filed in connection with the 2019 Annual Meeting of Shareholders, are incorporated by reference in Part III.

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GLOSSARY OF TERMS AND ABBREVIATIONS

AFUDC	Allowance for Funds Used During Construction
AOCI / AOCL	Accumulated Other Comprehensive Income (Loss)
ASC	Accounting Standards Codification
ASU	Accounting Standards Update as issued by the FASB
Average Weather	The 25-year average of heating degree days based on temperatures established in our last Oregon general rate case
Bcf	Billion cubic feet, a volumetric measure of natural gas, where one Bcf is roughly equal to 10 million therms
CNG	Compressed Natural Gas
CODM	Chief Operating Decision Maker. For accounting purposes, an individual or group of individuals responsible for the allocation of resources and assessing the performance of the entity's business units
Core Utility Customers	Residential, commercial, and industrial customers receiving firm service from the utility
Cost of Gas	The delivered cost of natural gas sold to customers, including the cost of gas purchased or withdrawn/produced from storage inventory or reserves, gains and losses from gas commodity hedges, pipeline demand costs, seasonal demand cost balancing adjustments, regulatory gas cost deferrals and Company gas use
CPUC	California Public Utilities Commission, the entity that regulates our California gas storage business at the Gill Ranch facility with respect to rates and terms of service, among other matters
Decoupling	A billing rate mechanism, also referred to as a conservation tariff, which is designed to allow a utility to encourage industrial and small commercial customers to conserve energy while not adversely affecting its earnings due to reductions in sales volumes
Demand Cost	A component in core utility customer rates representing the cost of securing firm pipeline capacity, whether the capacity is used or not
EBITDA	Earnings before interest, taxes, depreciation and amortization, a non-GAAP financial measure
EE/CA	Engineering Evaluation / Cost Analysis
Encana	Encana Oil & Gas (USA) Inc.
Energy Corp	Northwest Energy Corporation, a wholly-owned subsidiary of NW Natural
EPA	Environmental Protection Agency
EPS	Earnings per share
FASB	Financial Accounting Standards Board
FERC	Federal Energy Regulatory Commission; the entity regulating interstate storage services offered by the Mist gas storage facility
Firm Service	Natural gas service offered to customers under contracts or rate schedules that will not be disrupted to meet the needs of other customers
FMBs	First Mortgage Bonds
General Rate Case	A periodic filing with state or federal regulators to establish billing rates for utility customers
GHG	Greenhouse gases
Gill Ranch	Gill Ranch Storage, LLC, a wholly-owned subsidiary of NWN Gas Storage
Gill Ranch Facility	Underground natural gas storage facility near Fresno, California, with 75% owned by Gill Ranch and 25% owned by PG&E
GTN	Gas Transmission Northwest, LLC which owns a transmission pipeline serving California and the Pacific Northwest
Heating Degree Days	Units of measure reflecting temperature-sensitive consumption of natural gas, calculated by subtracting the average of a day's high and low temperatures from 59 degrees Fahrenheit
HATFA	Highway and Transportation Funding Act of 2014
Interruptible Service	Natural gas service offered to customers (usually large commercial or industrial users) under contracts or rate schedules that allow for interruptions when necessary to meet the needs of firm service customers
Interstate Storage Services	The portion of the Mist gas storage facility not used to serve NGD, instead serving utilities, gas marketers, electric generators, and large industrial users
IPUC	Public Utility Commission of Idaho; the entity that regulates NW Holdings' Idaho water business with respect to rates and terms of service, among other matters
IRP	Integrated Resource Plan

KB	Kelso-Beaver Pipeline, of which 10% is owned by KB Pipeline Company, a subsidiary of NNG Financial
LNG	Liquefied Natural Gas, the cryogenic liquid form of natural gas. To reach a liquid form at atmospheric pressure, natural gas must be cooled to approximately negative 260 degrees Fahrenheit
MAP-21	A federal pension plan funding law called the Moving Ahead for Progress in the 21st Century Act, July 2012
Moody's	Moody's Investors Service, Inc., credit rating agency
NAV	Net Asset Value
NGD	Natural Gas Distribution, a segment of NW Natural Holdings and NW Natural Gas Company that provides regulated natural gas distribution services to residential, commercial, and industrial customers in Oregon and Southwest Washington
NGD Margin	A financial measure consisting of NGD operating revenues less the associated cost of gas, franchise taxes, and environmental recoveries
NNG Financial	NNG Financial Corporation, a wholly-owned subsidiary of NW Holdings
NOL	Net Operating Loss
NRD	Natural Resource Damages
NW Holdings	Northwest Natural Holding Company
NW Natural	Northwest Natural Gas Company, a wholly-owned subsidiary of NW Holdings
NWN Energy	NW Natural Energy, LLC, a wholly-owned subsidiary of NW Holdings
NWN Gas Reserves	NWN Gas Reserves LLC, a wholly-owned subsidiary of Energy Corp
NWN Gas Storage	NW Natural Gas Storage, LLC, a wholly-owned subsidiary of NWN Energy
ODEQ	Oregon Department of Environmental Quality
OPEIU	Office and Professional Employees International Union Local No. 11, AFL-CIO, which is also referred to as the Union representing NW Natural's bargaining unit employees
OPUC	Public Utility Commission of Oregon; the entity that regulates our Oregon natural gas and water utility businesses with respect to rates and terms of service, among other matters; the OPUC also regulates the Mist gas storage facility's intrastate storage services
PBGC	Pension Benefit Guaranty Corporation
PG&E	Pacific Gas & Electric Company; 25% owner of the Gill Ranch Facility
PGA	Purchased Gas Adjustment, a regulatory mechanism which adjusts natural gas customer rates to reflect changes in the forecasted cost of gas and differences between forecasted and actual gas costs from the prior year
Portland General	Portland General Electric; primary customer of the North Mist gas storage expansion
PHMSA	U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration
PRP	Potentially Responsible Parties
RI/FS	Remedial Investigation / Feasibility Study
ROD	Record of Decision
ROE	Return on Equity, a measure of corporate profitability, calculated as net income or loss divided by average common stock equity. Authorized ROE refers to the equity rate approved by a regulatory agency for use in determining utility revenue requirements
ROR	Rate of Return, a measure of return on utility rate base. Authorized ROR refers to the rate of return approved by a regulatory agency and is generally discussed in the context of ROE and capital structure
S&P	Standard & Poor's, a credit rating agency and division of The McGraw-Hill Companies, Inc.
Sales Service	Service provided whereby a customer purchases both natural gas commodity supply and transportation from the utility
SEC	U.S. Securities and Exchange Commission
SRRM	Site Remediation and Recovery Mechanism, a billing rate mechanism for recovering prudently incurred environmental site remediation costs allocable to Oregon through customer billings, subject to an earnings test
TCJA	The Tax Cuts and Jobs Act enacted on December 22, 2017
Therm	The basic unit of natural gas measurement, equal to one hundred thousand British thermal units
TWH	Trail West Holdings, LLC, 50% owned by NWN Energy
TWP	Trail West Pipeline, LLC, a subsidiary of TWH
TransCanada	TransCanada Pipelines Limited, owner of TransCanada American Investments, Ltd., a 50% owner of TWH, and GTN

Transportation Service	Service provided whereby a customer purchases natural gas directly from a supplier but pays the utility to transport the gas over its distribution system to the customer's facility
U.S. GAAP	Accounting principles generally accepted in the United States of America
WARM	An Oregon billing rate mechanism applied to natural gas residential and commercial customers to adjust for temperature variances from average weather
WUTC	Washington Utilities and Transportation Commission, the entity that regulates our Washington natural gas and water utility businesses with respect to rates and terms of service, among other matters

FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which are subject to the safe harbors created by such Act. Forward-looking statements can be identified by words such as anticipates, assumes, intends, plans, seeks, believes, estimates, expects, and similar references to future periods. Examples of forward-looking statements include, but are not limited to, statements regarding the following:

- plans, projections and predictions;
- objectives, goals or strategies;
- assumptions, generalizations and estimates;
- ongoing continuation of past practices or patterns;
- future events or performance;
- trends;
- risks;
- uncertainties;
- timing and cyclicalities;
- earnings and dividends;
- capital expenditures and allocation;
- capital or organizational structure, including restructuring as a holding company;
- climate change and our role in a low-carbon, renewable-energy future;
- growth;
- customer rates;
- labor relations and workforce succession;
- commodity costs;
- gas reserves;
- operational performance and costs;
- energy policy, infrastructure and preferences;
- public policy approach and involvement;
- efficacy of derivatives and hedges;
- liquidity, financial positions, and planned securities issuances;
- valuations;
- project and program development, expansion, or investment;
- business development efforts, including acquisitions and integration thereof;
- pipeline capacity, demand, location, and reliability;
- adequacy of property rights and headquarter development;
- technology implementation and cybersecurity practices;
- competition;
- procurement and development of gas supplies;
- estimated expenditures;
- costs of compliance;
- customers bypassing our infrastructure;
- credit exposures;
- rate or regulatory outcomes, recovery or refunds;
- impacts or changes of laws, rules and regulations;
- tax liabilities or refunds, including effects of tax reform;
- levels and pricing of gas storage contracts and gas storage markets;
- outcomes, timing and effects of potential claims, litigation, regulatory actions, and other administrative matters;
- projected obligations, expectations and treatment with respect to retirement plans;
- availability, adequacy, and shift in mix, of gas supplies;
- effects of new or anticipated changes in critical accounting policies or estimates;

- approval and adequacy of regulatory deferrals;
- effects and efficacy of regulatory mechanisms; and
- environmental, regulatory, litigation and insurance costs and recoveries, and timing thereof.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements. We therefore caution you against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements are discussed at Item 1A., "Risk Factors" of Part I and Item 7. and Item 7A., "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Quantitative and Qualitative Disclosures About Market Risk", respectively, of Part II of this report.

Any forward-looking statement made in this report speaks only as of the date on which it is made. Factors or events that could cause actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

PART I

FILING FORMAT

This annual report on Form 10-K is a combined report being filed by two separate registrants: Northwest Natural Holding Company (NW Holdings), and Northwest Natural Gas Company (NW Natural). Except where the content clearly indicates otherwise, any reference in the report to "we," "us" or "our" is to the consolidated entity of NW Holdings and all of its subsidiaries, including NW Natural, which is a distinct SEC registrant that is a wholly-owned subsidiary of NW Holdings. Each of NW Holdings' subsidiaries is a separate legal entity with its own assets and liabilities. Information contained herein relating to any individual registrant or its subsidiaries is filed by such registrant on its own behalf. Each registrant makes representations only as to itself and its subsidiaries and makes no other representation whatsoever as to any other company.

Part II - Item 8. Financial statements and supplementary data in this Annual Report on Form 10-K includes separate financial statements (i.e. balance sheets, statements of comprehensive income, statements of cash flows, and statements of equity) for NW Holdings and NW Natural, in that order. References in this discussion to the "Notes" are to the Notes to the Consolidated Financial Statements in Item 8 of this report. The Notes to the Consolidated Financial Statements are presented on a combined basis for both entities except where expressly noted otherwise. All Items other than Part II - Item 8. are combined for the reporting companies.

ITEM 1. BUSINESS

OVERVIEW

On October 1, 2018, we completed a reorganization into a holding company structure. We believe that our holding company structure is an agile and efficient platform from which to pursue, finance, and oversee new opportunities, such as in the water sector, while also providing legal separation between regulated natural gas distribution operations and other businesses. In this reorganization, shareholders of NW Natural (the predecessor publicly held parent company) became shareholders of NW Holdings, on a one-for-one basis, with the same number of shares and same ownership percentage as they held in NW Natural immediately prior to the reorganization. NW Natural became a wholly-owned subsidiary of NW Holdings. Additionally, certain subsidiaries of NW Natural were transferred to NW Holdings. As required under accounting guidance, these subsidiaries are presented as discontinued operations in the consolidated results of NW Natural within this report.

NW Holdings is a holding company headquartered in Portland, Oregon and owns NW Natural, NW Natural Water Company (NW Water), and other businesses and activities. NW Natural is NW Holdings' largest subsidiary.

NW Natural distributes natural gas to residential, commercial, and industrial customers in Oregon and southwest Washington. NW Natural and its predecessors have supplied gas service to the public since 1859, was

incorporated in Oregon in 1910, and began doing business as NW Natural in 1997. NW Natural's natural gas distribution activities are reported in the natural gas distribution (NGD) segment, formerly titled and reported as the utility segment. All other business activities, including certain gas storage activities, water businesses, and other investments and activities are aggregated and reported as "other" at their respective registrant.

In addition, NW Holdings has reported discontinued operations results related to the pending sale of Gill Ranch Storage, LLC (Gill Ranch). NW Natural Gas Storage, LLC (NWN Gas Storage), currently an indirect wholly-owned subsidiary of NW Holdings, entered into a Purchase and Sale Agreement during the second quarter of 2018 that provides for the sale of all membership interests in Gill Ranch. Gill Ranch owns a 75% interest in the natural gas storage facility located near Fresno, California known as the Gill Ranch Gas Storage Facility. Pacific Gas and Electric Company (PG&E) owns the remaining 25% interest in the Gill Ranch Gas Storage Facility.

NATURAL GAS DISTRIBUTION (NGD) SEGMENT

Both NW Holdings and NW Natural have one reportable segment, the NGD segment, which is conducted by NW Natural. The NGD business purchases and distributes natural gas through approximately 750,000 meters in Oregon and southwest Washington. Approximately 89% of customers are located in Oregon and 11% are located in southwest Washington.

NW Natural has been allocated an exclusive service territory by the OPUC and WUTC, which includes the major population centers in western Oregon, including the Portland metropolitan area, most of the Willamette Valley, the Coastal area from Astoria to Coos Bay, and portions of Washington along the Columbia River. Portland serves as one of the largest ports on the West Coast and is a key distribution center. Major businesses located in NW Natural's service territory include retail, manufacturing, and high-technology industries.

Customers

The NGD business serves residential, commercial, and industrial customers with no individual customer accounting for more than 10% of NW Natural or NW Holdings revenues. On an annual basis, residential and commercial customers typically account for approximately 60% of NGD volumes delivered and approximately 90% of margin. Industrial customers largely account for the remaining volumes and margin.

The following table presents summary meter information for the NGD segment as of December 31, 2018:

	Number of Meters	% of Volumes	% of Margin ⁽¹⁾
Residential	680,134	37%	65%
Commercial	69,259	22%	27%
Industrial	1,028	41%	8%
Other	N/A	N/A	—%
Total	750,421	100%	100%

⁽¹⁾ NGD margin is also affected by other items, including miscellaneous services, gains or losses from our gas cost incentive sharing mechanism, and other service fees.

Generally, residential and commercial customers purchase both their natural gas commodity (gas sales) and natural gas delivery services (transportation services) from the NGD business. Industrial customers also purchase transportation services, but may buy the gas commodity either from NW Natural or directly from a third-party gas marketer or supplier. Gas commodity cost is primarily a pass-through cost to customers; therefore, profit margins are not materially affected by an industrial customer's decision to purchase gas from NW Natural or from third parties. Industrial and large commercial customers may also select between firm and interruptible service levels, with firm services generally providing higher profit margins compared to interruptible services.

To help manage gas supplies, industrial tariffs are designed to provide some certainty regarding industrial customers' volumes by requiring an annual service election, special charges for changes between elections, and in some cases, a minimum or maximum volume requirement before changing options.

Customer growth rates for natural gas utilities in the Pacific Northwest historically have been among the highest in the nation due to lower market saturation as natural gas became widely available as a residential heating source after other fuel options. We estimate natural gas was in approximately 63% of single-family residential homes in NW Natural's service territory in 2018. Customer growth in our region comes mainly from the following sources: single-family housing, both new construction and conversions; multifamily housing new construction; and commercial buildings, both new construction and conversions. Single-family new construction has consistently been our strongest performing source of growth. Continued customer growth is closely tied to the comparative price of natural gas to electricity and fuel oil and the economic health of Portland, Oregon and Vancouver, Washington. We believe there is potential for continued growth as natural gas is a preferred energy source due to its affordable, reliable, and clean qualities.

Competitive Conditions

In its service areas, the NGD business has no direct competition from other natural gas distributors. However, it competes with other forms of energy in each customer class. This competition among energy suppliers is based on price, efficiency, reliability, performance, preference, market conditions, technology, federal, state, and local energy policy, and environmental impacts.

For residential and small to mid-size commercial customers, the NGD business competes primarily with providers of electricity, fuel oil, and propane.

In the industrial and large commercial markets, the NGD business competes with all forms of energy, including competition from wholesale natural gas marketers. In addition, large industrial customers could bypass NW Natural's natural gas distribution system by installing their own direct pipeline connection to the interstate pipeline system. NW Natural has designed custom transportation service agreements with several large industrial customers to provide transportation service rates that are competitive with the customer's costs of installing their own pipeline.

Seasonality of Business

The NGD business is seasonal in nature due to higher gas usage by residential and commercial customers during the cold winter heating months. Other categories of customers experience similar seasonality in their usage but to a lesser extent.

Regulation and Rates

The NGD business is subject to regulation by the OPUC and WUTC. These regulatory agencies authorize rates and allow recovery mechanisms to provide the opportunity to recover prudently incurred capital and operating costs from customers, while also earning a reasonable return on investment for investors. In addition, the OPUC and WUTC also regulate the system of accounts and issuance of securities by NW Natural.

NW Natural files general rate cases and rate tariff requests periodically with the OPUC and WUTC to establish approved rates, an authorized ROE, an overall rate of return on rate base (ROR), an authorized capital structure, and other revenue/cost deferral and recovery mechanisms.

NW Natural is also regulated by the FERC. Under NW Natural's Mist interstate storage certificate with FERC, NW Natural is required to file either a petition for rate approval or a cost and revenue study every five years to change or justify maintaining the existing rates for the interstate storage service.

For further discussion on our most recent general rate cases, see Part II, Item 7, "Results of Operations—Regulatory Matters—*Regulation and Rates*".

Gas Supply

NW Natural strives to secure sufficient, reliable supplies of natural gas to meet the needs of customers at the lowest reasonable cost, while maintaining price stability and managing gas purchase costs prudently. This is accomplished through a comprehensive strategy focused on the following items:

- **Reliability** - ensuring gas resource portfolios are sufficient to satisfy customer requirements under extreme cold weather conditions;
- **Diverse Supply** - providing diversity of supply sources;
- **Diverse Contracts** - maintaining a variety of contract durations, types, and counterparties; and
- **Cost Management and Recovery** - employing prudent gas cost management strategies.

Reliability

The effectiveness of the natural gas distribution system ultimately rests on whether reliable service is provided to NGD customers. To ensure effectiveness, the NGD business has developed a risk-based methodology in which it uses a planning standard to serve the highest firm sales demand day in any year with 99% certainty.

The projected maximum design day firm NGD customer sendout is approximately 10.0 million therms. Of this total, the NGD business is currently capable of meeting about 56% of requirements with gas from storage located within or adjacent to the service territory, while the remaining supply requirements would come from gas purchases under firm gas purchase contracts and recall agreements.

To supplement near-term natural gas supplies, NW Natural can segment transportation capacity, if needed. Pipeline segmentation is a natural gas transportation mechanism under which a shipper can leverage its firm pipeline transportation capacity by separating it into multiple segments with alternate delivery routes. The reliability of service on these alternate routes will vary depending on the constraints of the pipeline system. For those segments with acceptable reliability, segmentation provides a shipper with increased flexibility and potential cost savings compared to traditional pipeline service. Since 2014, the NGD business has relied on segmentation of firm pipeline transportation capacity that flows from Stanfield, Oregon to various points south of Molalla, Oregon.

We believe gas supplies would be sufficient to meet existing NGD firm customer demand in the event of maximum design day weather conditions.

The following table shows the sources of supply projected to be used to satisfy the design day sendout for the 2018-2019 winter heating season:

<i>Therms in millions</i>	Therms	Percent
Sources of NGD supply:		
Firm supply purchases	3.4	34%
Mist underground storage (NGD only)	3.1	31%
Company-owned LNG storage	1.9	19%
Off-system storage contract	0.5	5%
Pipeline segmentation capacity	0.6	6%
Recall agreements	0.4	4%
Peak day citygate deliveries	0.1	1%
Total	<u>10.0</u>	<u>100%</u>

The OPUC and WUTC have IRP processes in which utilities define different growth scenarios and corresponding resource acquisition strategies in an effort to evaluate supply and demand resource requirements, consider uncertainties in the planning process and the need for flexibility to respond to changes, and establish a plan for providing reliable service at the least cost.

NW Natural files a full IRP biennially for Oregon and Washington with the OPUC and the WUTC, respectively, and files updates between filings. The OPUC acknowledges NW Natural's action plan; whereas the WUTC provides notice that the IRP has met the requirements of the

Washington Administrative Code. OPUC acknowledgment of the IRP does not constitute ratemaking approval of any specific resource acquisition strategy or expenditure. However, the Commissioners generally indicate that they would give considerable weight in prudence reviews to actions consistent with acknowledged plans. The WUTC has indicated the IRP process is one factor it will consider in a prudence review. For additional information see Part II, Item 7, "Results of Operations—Regulatory Matters".

Diversity of Supply Sources

NW Natural purchases gas supplies primarily from the Alberta and British Columbia provinces of Canada and multiple receipt points in the U.S. Rocky Mountains to protect against regional supply disruptions and to take advantage of price differentials. For 2018, 61% of gas supply came from Canada, with the balance primarily coming from the U.S. Rocky Mountain region. We believe gas supplies available in the western United States and Canada are adequate to serve NGD customer requirements for the foreseeable future. NW Natural continues to evaluate the long-term supply mix based on projections of gas production and pricing in the U.S. Rocky Mountain region as well as other regions in North America. Additionally, the extraction of shale gas has increased the availability of gas supplies throughout North America for the foreseeable future.

NW Natural supplements firm gas supply purchases with gas withdrawals from gas storage facilities, including underground reservoirs and LNG storage facilities. Storage facilities are generally injected with natural gas during the off-peak months in the spring and summer, and the gas is withdrawn for use during peak demand months in the winter. The following table presents the storage facilities available for NGD business supply:

	Maximum Daily Deliverability (therms in millions)	Designed Storage Capacity (Bcf)
Gas Storage Facilities		
Owned Facility		
Mist, Oregon ⁽¹⁾	3.1	10.6
Contracted Facility		
Jackson Prairie, Washington ⁽²⁾	0.5	1.1
LNG Facilities		
Owned Facilities		
Newport, Oregon	0.6	1.0
Portland, Oregon	1.3	0.6
Total	<u>5.5</u>	<u>13.3</u>

⁽¹⁾ The Mist gas storage facility has a total maximum daily deliverability of 5.4 million therms and a total designed storage capacity of about 16.0 Bcf, of which 3.1 million therms of daily deliverability and 10.6 Bcf of storage capacity are reserved for NGD business customers.

⁽²⁾ The storage facility is located near Chehalis, Washington and is contracted from Northwest Pipeline, a subsidiary of The Williams Companies.

The Mist facility serves NGD segment customers and is also used for non-NGD purposes, primarily for contracts with gas storage customers, including utilities and third-party marketers. Under regulatory agreements with the OPUC

and WUTC, gas storage at Mist can be developed in advance of NGD customer needs but is subject to recall when needed to serve such customers as their demand increases. When storage capacity is recalled for NGD purposes it becomes part of the NGD segment. In 2018, the NGD business did not recall additional deliverability or associated storage capacity to serve customer needs.

In addition, pipeline capacity and supply resources from certain NW Natural customers may be recalled if needed to meet high demand requirements.

Diverse Contract Durations and Types

NW Natural has a diverse portfolio of short-, medium-, and long-term firm gas supply contracts and a variety of contract types including firm and interruptible supplies as well as supplemental supplies from gas storage facilities.

The portfolio of firm gas supply contracts typically includes the following gas purchase contracts: year-round and winter-only baseload supplies; seasonal supply with an option to call on additional daily supplies during the winter heating season; and daily or monthly spot purchases.

During 2018, a total of 743 million therms were purchased under contracts with durations outlined in the chart below:

Contract Duration (primary term)	Percent of Purchases
Long-term (one year or longer)	28%
Short-term (more than one month, less than one year)	27
Spot (one month or less)	45
Total	100%

Gas supply contracts are renewed or replaced as they expire. During 2018, no individual supplier provided over 10% of the NGD business gas supply requirements.

Gas Cost Management

The cost of gas sold to NGD customers primarily consists of the following items, which are included in annual PGA rates: gas purchases from suppliers; charges from pipeline companies to transport gas to our distribution system; gas storage costs; gas reserves contracts; and gas commodity derivative contracts.

The NGD business employs a number of strategies to mitigate the cost of gas sold to customers. The primary strategies for managing gas commodity price risk include:

- negotiating fixed prices directly with gas suppliers;
- negotiating financial derivative contracts that: (1) effectively convert floating index prices in physical gas supply contracts to fixed prices (referred to as commodity price swaps); or (2) effectively set a ceiling or floor price, or both, on floating index priced physical supply contracts (referred to as commodity price options such as calls, puts, and collars);
- buying physical gas supplies at a set price and injecting the gas into storage for price stability and to minimize pipeline capacity demand costs; and
- investing in gas reserves for longer term price stability. See Note 12 for additional information about our gas reserves.

NW Natural also contracts with an independent energy marketing company to capture opportunities regarding storage and pipeline capacity when those assets are not serving the needs of NGD business customers. Asset management activities provide opportunities for cost of gas savings for customers and incremental revenues for NW Natural through regulatory incentive-sharing mechanisms. These activities, net of the amount shared, are included in other for segment reporting purposes.

Gas Cost Recovery

Mechanisms for gas cost recovery are designed to be fair and reasonable, with an appropriate balance between the interests of customers and NW Natural. In general, natural gas distribution rates are designed to recover the costs of, but not to earn a return on, the gas commodity sold. Risks associated with gas cost recovery are minimized by resetting customer rates annually through the PGA and aligning customer and shareholder interests through the use of sharing, weather normalization, and conservation mechanisms in Oregon. See Part II, Item 7, "Results of Operations—Regulatory Matters" and "Results of Operations—Business Segments—Natural Gas Distribution Operations—Cost of Gas."

Transportation of Gas Supplies

NW Natural's gas distribution system is reliant on a single, bi-directional interstate transmission pipeline to bring gas supplies into the natural gas distribution system. Although dependent on a single pipeline, the pipeline's gas flows into the Portland metropolitan market from two directions: (1) the north, which brings supplies from the British Columbia and Alberta supply basins; and (2) the east, which brings supplies from Alberta as well as the U.S. Rocky Mountain supply basins.

NW Natural incurs monthly demand charges related to firm pipeline transportation contracts. These contracts are multi-year contracts with expirations ranging from 2019 to 2060. The largest pipeline agreements are with Northwest Pipeline. NW Natural actively works with Northwest Pipeline and others to renew contracts in advance of expiration to ensure gas transportation capacity is sufficient to meet customer needs.

Rates for interstate pipeline transportation services are established by FERC within the U.S. and by Canadian authorities for services on Canadian pipelines.

As mentioned above, the service territory is dependent on a single pipeline for its natural gas supply. In October 2018, a critical natural gas pipeline in western Canada experienced a rupture and gas supply to the Pacific Northwest was disrupted. NW Natural was able to serve firm NGD business customers during the incident with natural gas from the Mist storage facility and realignment of other supplies. Pipeline disruptions, replacement projects, and long-term projected natural gas demand in our region underscore the need for pipeline transportation diversity. In addition, there are potential industrial projects in the region, which could increase the demand for natural gas and the need for additional pipeline capacity and diversity.

Currently, there are various interstate pipeline projects proposed, including the Trail West pipeline in which NW Holdings has an interest, that could meet the forecasted demand growth for NW Natural and the region. However, the location of any future pipeline project will likely depend on the location of committed industrial projects. NW Holdings and NW Natural will continue to evaluate and closely monitor the currently prospected projects to determine the best option for our customers. NW Holdings has an equity investment in Trail West Holdings, LLC (TWH), which is developing plans to build the Trail West pipeline. This pipeline would connect TransCanada Pipelines Limited's (TransCanada) Gas Transmission Northwest (GTN) interstate transmission line to NW Natural's natural gas distribution system. If constructed, this pipeline would provide another transportation path for gas purchases from Alberta and the U.S. Rocky Mountains in addition to the one that currently moves gas through the Northwest Pipeline system.

Gas Distribution

The primary goals of gas distribution operations are safety and reliability of the system, which entails building and maintaining a safe pipeline distribution system.

Safety and the protection of employees, customers, and the public at large are, and will remain, top priorities. NW Natural constructs, operates, and maintains the pipeline distribution system and storage operations with the goal of ensuring natural gas is delivered and stored safely, reliably, and efficiently.

NW Natural has one of the most modern distribution systems in the country with no identified cast iron pipe or bare steel main. The final known bare steel was removed from the system in 2015 and cast iron pipe removal was completed in 2000. Since the 1980s, NW Natural has taken a proactive approach to replacement programs and partnered with the OPUC and WUTC on progressive regulation to further safety and reliability efforts for the distribution system. In the past, NW Natural had a cost recovery program in Oregon that encompassed programs for bare steel replacement, transmission pipeline integrity management, and distribution pipeline integrity management as appropriate. For discussion on current regulatory programs, see Part II, Item 7, "Results of Operations—Regulatory Matters".

Natural gas distribution businesses will continue to be subject to greater federal and state regulation in the future due to pipeline incidents involving other companies. Additional operating and safety regulations from the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) are currently under development. In 2016, PHMSA issued proposed regulations to update safety requirements for natural gas transmission pipelines. Final regulations are anticipated to be issued in 2019. Current proposed regulations indicate a 15-year timeline for implementation of compliance requirements. NW Natural will continue to work diligently with industry associations as well as federal and state regulators to ensure the safety of the system and compliance with new laws and regulations. The costs associated with compliance with federal, state, and local rules are expected to be recovered in rates.

North Mist Gas Storage Expansion Project

In Oregon, there is a need to integrate intermittent resources, such as wind and solar, into the power system with policymakers committing to the elimination of coal-fired electric generation and moving toward a 50% renewable electricity standard by 2040. Flexible natural gas-fired electric generation facilities and associated gas storage are necessary to support the integration of renewable resources. In 2016, NW Natural began expanding its gas storage facility near Mist, Oregon to provide innovative long-term, no-notice underground gas storage service to support gas-fired electric generating facilities that are intended to facilitate the integration of more wind power into the region's electric generation mix. Natural gas storage enables generation to adjust quickly when renewable energy, such as wind and solar, rises and falls.

This expansion project will be dedicated solely to Portland General Electric (Portland General), a local electric company, to support their gas-fired electric power generation facilities under an initial 30-year contract with options to extend, totaling up to an additional 50 years upon mutual agreement of the parties.

The expansion project includes a new reservoir providing up to 2.5 Bcf of available storage, an additional compressor station with design capacity of 120,000 dekatherms of gas per day, no-notice service that can be drawn on rapidly, and a 13-mile pipeline to connect to Portland General's gas plants at Port Westward. The expansion project is considered part of the NGD segment and has an estimated cost of approximately \$149 million, with a targeted in-service date during the spring of 2019. See additional discussion in Part II, Item 7 "Financial Condition—Cash Flows—Investing Activities".

When the expansion is placed into service, the investment will be included in rate base under an established tariff schedule already approved by the OPUC, with revenues recognized consistent with the schedule. Billing rates will be updated annually to the current depreciable asset level and forecasted operating expenses.

While there are additional expansion opportunities in the Mist storage field, further development is not contemplated at this time and any expansion would be based on market demand, project execution, cost effectiveness, available financing, receipt of future permits, and other rights.

OTHER

Certain businesses and activities of NW Holdings and NW Natural are aggregated and reported as other for segment reporting purposes. These include the following businesses and activities aggregated and reported as other under NW Holdings:

- water businesses and water acquisition activities;
- an equity method investment in TWH, a joint venture to build and operate a gas transmission pipeline in Oregon. TWH is owned 50% by NWN Energy, a wholly-owned subsidiary of NW Holdings, and 50% by TransCanada American Investments Ltd., an indirect wholly-owned subsidiary of TransCanada Corporation;

- a minority interest in the Kelso-Beaver Pipeline held by our wholly-owned subsidiary NNG Financial Corporation (NNG Financial); and
- holding company and corporate activities as well as adjustments made in consolidation.

Additionally, the following businesses and activities are aggregated and reported as other under NW Natural, a wholly owned subsidiary of NW Holdings:

- 5.4 Bcf of the Mist gas storage facility contracted to utilities and third-party marketers;
- natural gas asset management activities; and
- appliance retail center operations.

WATER. During 2018, NW Water completed the purchase of four privately-owned regulated water utilities serving approximately 22,000 people through 7,400 connections in the Pacific Northwest. Several additional acquisition agreements for privately-owned water utilities have been signed, the largest of which is a water and wastewater business in Sunriver, Oregon serving 9,400 connections. These pending transactions are subject to public utility commission approvals and are expected to close during 2019.

MIST GAS STORAGE. The Mist gas storage facility began operations in 1989. It is a 16 Bcf facility with 10.6 Bcf used to provide gas storage for the NGD business. The remaining 5.4 Bcf of the facility is contracted with other utilities and third-party marketers with these results reported in other.

The overall facility consists of seven depleted natural gas reservoirs, 22 injection and withdrawal wells, a compressor station, dehydration and control equipment, gathering lines, and other related facilities. The capacity at Mist serving other utilities and third-party marketers provides multi-cycle gas storage services to customers in the interstate and intrastate markets. The interstate storage services are offered under a limited jurisdiction blanket certificate issued by FERC. Under NW Natural's interstate storage certificate with FERC, NW Natural is required to file either a petition for rate approval or a cost and revenue study every five years to change or justify maintaining the existing rates for the interstate storage service. Intrastate firm storage services in Oregon are offered under an OPUC-approved rate schedule as an optional service to certain eligible customers. Gas storage revenues from the 5.4 Bcf are derived primarily from firm service customers who provide energy-related services, including natural gas distribution, electric generation, and energy marketing. The Mist facility benefits from limited competition as there are few storage facilities in the Pacific Northwest region. Therefore, NW Natural is able to acquire high value, multi-year contracts.

ASSET MANAGEMENT ACTIVITIES. NW Natural contracts with an independent energy marketing company to provide asset management services, primarily through the use of natural gas commodity exchange agreements and natural gas pipeline capacity release transactions. The results of these activities are included in other, except for the asset management revenues allocated to NGD business customers pursuant to regulatory agreements, which are reported in the NGD segment.

ENVIRONMENTAL MATTERS

Properties and Facilities

NW Natural owns, or previously owned, properties and facilities that are currently being investigated that may require environmental remediation and are subject to federal, state, and local laws and regulations related to environmental matters. These laws and regulations may require expenditures over a long time frame to address certain environmental impacts. Estimates of liabilities for environmental costs are difficult to determine with precision because of the various factors that can affect their ultimate disposition. These factors include, but are not limited to, the following:

- the complexity of the site;
- changes in environmental laws and regulations at the federal, state, and local levels;
- the number of regulatory agencies or other parties involved;
- new technology that renders previous technology obsolete, or experience with existing technology that proves ineffective;
- the ultimate selection of a particular technology;
- the level of remediation required;
- variations between the estimated and actual period of time that must be dedicated to respond to an environmentally-contaminated site; and
- the application of environmental laws that impose joint and several liabilities on all potentially responsible parties.

NW Natural has received recovery of a portion of such environmental costs through insurance proceeds, seeks the remainder of such costs through customer rates, and believes recovery of these costs is probable. In Oregon, NW Natural has a mechanism to recover expenses, subject to an earnings test and allocation rules. See Part II, Item 7, "Results of Operations—Rate Matters—Rate Mechanisms—*Environmental Costs*", Note 2, and Note 17.

Greenhouse Gas Matters

We recognize our businesses are likely to be affected by requirements to address greenhouse gas emissions. Future federal, state or local requirements may seek to limit emissions of greenhouse gases, including both carbon dioxide (CO₂) and methane. These potential laws and regulations may require certain activities to reduce emissions and/or increase the price paid for energy based on its carbon content.

Current federal rules require the reporting of greenhouse gas emissions. In September 2009, the Environmental Protection Agency (EPA) issued a final rule requiring the annual reporting of greenhouse gas emissions from certain industries, specified large greenhouse gas emission sources, and facilities that emit 25,000 metric tons or more of CO₂ equivalents per year. NW Natural began reporting emission information in 2011. Under this reporting rule, local natural gas distribution companies like NW Natural are required to report system throughput to the EPA on an annual basis. The EPA also has required additional greenhouse gas reporting regulations to which NW Natural is subject, requiring the annual reporting of fugitive emissions from operations.

The Oregon and Washington legislatures and governors continue to consider various greenhouse gas reduction proposals and initiatives. For example, the Oregon legislature will be considering a cap and trade bill during the 2019 legislative session that could create a declining cap on greenhouse gas emissions emitted by a wide variety of emission sources, including electric and natural gas utilities, and would require those entities with a compliance obligation to hold permits, or allowances, to emit greenhouse gas emissions on a per ton basis. While there is uncertainty regarding the extent of the legislation, potential compliance costs, and cost sharing impacts of these and other similar proposals, NW Natural currently expects to be able to recover compliance costs associated with this type of legislation in rates.

The state of Washington's Department of Ecology (DOE) enacted the Clean Air Rule (CAR) in 2016, which capped the maximum greenhouse gas emissions allowed from stationary sources, such as natural gas utilities. For gas distribution utilities, the production of emissions from usage by their customers was considered to be production of emissions attributable to the utility. In December 2017, a Washington State Court ruled that the DOE lacked legislative authority to regulate non-emitting sources, such as local distribution companies. The DOE has appealed the ruling and oral arguments for the appeal are expected to take place during 2019.

The outcome of these or any additional federal, state or local climate change policy developments cannot be determined at this time, but these initiatives could produce a number of results including new regulations, legal actions, additional charges to fund energy efficiency activities, or other regulatory actions. The adoption and implementation of any regulations limiting emissions of greenhouse gases could require NW Natural to incur compliance costs associated with our customers' use, resulting in an increase in the prices charged to those customers and in a potential decline in the demand for natural gas over time.

With environmental stewardship as one of our core values, we continue to take proactive steps to address greenhouse gas emissions in our region and the communities we serve. We believe NW Natural and its modern pipeline system has an important role to play in helping the Pacific Northwest move to a low-carbon, renewable-energy future.

We intend to vigorously pursue our role in a low-carbon future, and believe we are positioned to do so. Currently, NW Natural delivers more energy in Oregon than any other utility, and use of natural gas by our Sales and Transportation customers' accounts for approximately 8% of Oregon's greenhouse gas emissions according to the State of Oregon Department of Environmental Quality In-Boundary GHG Inventory Preliminary 2015 Figures. Sales of natural gas to residential and commercial customers - customers NW Natural procures gas for - accounts for approximately 5% of the state's emissions. Using this as a starting baseline, in 2017, NW Natural initiated a multi-pronged, multi-year core utility strategy to deliver greater emission reductions. Key components of this strategy include energy efficiency and the continued adoption of the company's voluntary Smart Energy carbon offset program. NW Natural is also actively pursuing the potential to procure

renewable natural gas for our customers, and is engaging in longer-term efforts to explore the development of renewable hydrogen through power to gas.

EMPLOYEES

At December 31, 2018, our workforce consisted of the following:

NW Natural:	
Unionized Employees ⁽¹⁾	635
Non-Unionized Employees	532
Total NW Natural	<u>1,167</u>
Other Entities:	
Water Company Employees	16
Other	15
Total Other Entities	<u>31</u>
Total Employees	<u><u>1,198</u></u>

⁽¹⁾ Members of the Office and Professional Employees International Union (OPEIU) Local No. 11, AFL-CIO.

NW Natural's labor agreement with members of OPEIU covers wages, benefits, and working conditions. On May 22, 2014, NW Natural's unionized employees ratified a labor agreement (Joint Accord) that extends to November 30, 2019, and thereafter from year to year unless either party serves notice of its intent to negotiate modifications to the collective bargaining agreement.

Certain subsidiaries may receive services from employees of other subsidiaries. When such services involve regulated entities, those entities receiving services reimburse the entity providing services pursuant to shared services agreements.

EXECUTIVE OFFICERS OF THE REGISTRANTS

For information concerning executive officers, see Part III, Item 10.

AVAILABLE INFORMATION

NW Holdings and NW Natural file annual, quarterly and current reports and other information with the Securities and Exchange Commission (SEC). The SEC maintains an Internet site where reports, proxy statements, and other information filed can be read, copied, and requested online at its website (www.sec.gov). In addition, we make available, free of charge, on our website (www.nwnaturalholdings.com), our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) and proxy materials filed under Section 14 of the Securities Exchange Act of 1934, as amended (Exchange Act), as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. We have included our website address as an inactive textual reference only. Information contained on our website is not incorporated by reference into this annual report on Form 10-K.

NW Holdings and NW Natural have adopted a Code of Ethics for all employees, officers, and directors that is available on our website. We intend to disclose revisions and amendments to, and any waivers from, the Code of Ethics for officers and directors on our website. Our Corporate Governance Standards, Director Independence Standards, charters of each of the committees of the Board of Directors, and additional information about NW Holdings and NW Natural are also available at the website. Copies of these documents may be requested, at no cost, by writing or calling Shareholder Services, NW Natural, One Pacific Square, 220 N.W. Second Avenue, Portland, Oregon 97209, telephone 503-226-4211 ext. 2402.

ITEM 1A. RISK FACTORS

NW Holdings' and NW Natural's business and financial results are subject to a number of risks and uncertainties, many of which are not within our control, which could adversely affect our business, financial condition, and results of operations. Additional risks and uncertainties that are not currently known to us or that are not currently believed by us to be material may also harm our businesses, financial condition, and results of operations. When considering any investment in NW Holdings' or NW Natural's securities, investors should carefully consider the following information, as well as information contained in the caption "Forward-Looking Statements", Item 7A, and our other documents filed with the SEC. This list is not exhaustive and the order of presentation does not reflect management's determination of priority or likelihood. Additionally, our listing of risk factors that primarily affects one of our businesses does not mean that such risk factor is inapplicable to our other businesses.

Risks Related to our Business Generally

REGULATORY RISK. *Regulation of NW Holdings' and NW Natural's regulated businesses, including changes in the regulatory environment, failure of regulatory authorities to approve rates which provide for timely recovery of costs and an adequate return on invested capital, or an unfavorable outcome in regulatory proceedings may adversely impact NW Holdings' and NW Natural's financial condition and results of operations.*

The OPUC and WUTC have general regulatory authority over NW Natural's gas and NW Holdings' water utility businesses in Oregon and Washington, respectively, including: the rates charged to customers; authorized rates of return on rate base, including ROE; the amounts and types of securities our regulated utility companies, like NW Natural, may issue; services our regulated utility companies provide and the manner in which they provide them; the nature of investments our utility companies make; and, deferral and recovery of various expenses, including, but not limited to, pipeline replacement, environmental remediation costs, commodity hedging expense, transactions with affiliated interests, certain employee benefit expenses such as pension, weather adjustment mechanisms, and other matters. The OPUC and WUTC also regulate actions investors may take with respect to our utility companies, NW Natural and NW Holdings. Similarly, FERC has regulatory authority over NW Natural's interstate storage services, and the CPUC has regulatory authority over NW Holdings' Gill Ranch storage operations. Additionally, expansion of our businesses, including into water or other sectors, could result in regulation by other regulatory authorities. For example, NW Holdings' has acquired a water utility business in Idaho that is correspondingly subject to regulatory authority of the IPUC.

The prices the OPUC, WUTC, IPUC, and possible future regulators allow us to charge for retail service, and the maximum FERC-approved rates FERC authorizes us to charge for interstate storage and related transportation services, are the most significant factors affecting both NW Natural's and NW Holdings' financial position, results of operations and liquidity. The OPUC, WUTC, IPUC and

possible future regulators have the authority to disallow recovery of costs they find imprudently incurred or otherwise disallowed. Additionally, the rates allowed may be insufficient for recovery of costs incurred. We expect to continue to make expenditures to expand, improve and operate our gas and water utility distribution and gas storage systems. Regulators can find such expansions or improvements of expenditures were not prudently incurred, and deny recovery. Additionally, while the OPUC, WUTC and IPUC have established an authorized rate of return for our utility businesses through the ratemaking process, the regulatory process does not provide assurance that we will be able to achieve the earnings level authorized. Moreover, in the normal course of business we may place assets in service or incur higher than expected levels of operating expense before rate cases can be filed to recover those costs-this is commonly referred to as regulatory lag. The failure of any regulatory commission to approve requested rate increases on a timely basis to recover increased costs or to allow an adequate return could adversely impact NW Holdings' or NW Natural's financial condition and results of operations.

As companies with regulated utility businesses, we frequently have dockets open with our regulators. The regulatory proceedings for these dockets typically involve multiple parties, including governmental agencies, consumer advocacy groups, and other third parties. Each party has differing concerns, but all generally have the common objective of limiting amounts included in rates. We cannot predict the timing or outcome of these deferred proceedings or the effects of those outcomes on NW Holdings' and NW Natural's results of operations and financial condition.

ENVIRONMENTAL LIABILITY RISK. *Certain of NW Natural's, and possibly NW Holdings', properties and facilities may pose environmental risks requiring remediation, the costs of which are difficult to estimate and which could adversely affect NW Holdings' and NW Natural's financial condition, results of operations, and cash flows.*

NW Natural owns, or previously owned, properties that require environmental remediation or other action. NW Holdings or NW Natural may now, or in the future, own other properties that require environmental remediation or other action. NW Natural and NW Holdings accrue all material loss contingencies relating to these properties. A regulatory asset at NW Natural has been recorded for estimated costs pursuant to a Deferral Order from the OPUC and WUTC. In addition to maintaining regulatory deferrals, NW Natural settled with most of its historical liability insurers for only a portion of the costs it has incurred to date and expects to incur in the future. To the extent amounts NW Natural recovered from insurance are inadequate and it is unable to recover these deferred costs in utility customer rates, NW Natural would be required to reduce its regulatory assets which would result in a charge to earnings in the year in which regulatory assets are reduced. In addition, in Oregon, the OPUC approved the SRRM, which limits recovery of deferred amounts to those amounts which satisfy an annual prudence review and an earnings test that requires NW Natural to contribute additional amounts toward environmental remediation costs above approximately \$10 million in years in which NW Natural earns above its

authorized ROE. To the extent NW Natural earns more than its authorized ROE in a year, it would be required to cover environmental expenses greater than the \$10 million with those earnings that exceed its authorized ROE. The OPUC ordered a review of the SRRM in 2018 or when we obtain greater certainty of environmental costs, whichever occurs first. We submitted information for review in 2018, and believe we could be subject to further review. These ongoing prudence reviews, the earnings test, or the periodic review could reduce the amounts NW Natural is allowed to recover, and could adversely affect NW Holdings' or NW Natural's financial condition, results of operations and cash flows.

Moreover, we may have disputes with regulators and other parties as to the severity of particular environmental matters, what remediation efforts are appropriate, and the portion of the costs NW Natural or NW Holdings should bear. We cannot predict with certainty the amount or timing of future expenditures related to environmental investigations, remediation or other action, the portions of these costs allocable to NW Natural or NW Holdings, or disputes or litigation arising in relation thereto.

Environmental liability estimates are based on current remediation technology, industry experience gained at similar sites, an assessment of probable level of responsibility, and the financial condition of other potentially responsible parties. However, it is difficult to estimate such costs due to uncertainties surrounding the course of environmental remediation, the preliminary nature of certain site investigations, and the application of environmental laws that impose joint and several liabilities on all potentially responsible parties. These uncertainties and disputes arising therefrom could lead to further adversarial administrative proceedings or litigation, with associated costs and uncertain outcomes, all of which could adversely affect NW Holdings' or NW Natural's financial condition, results of operations and cash flows.

ENVIRONMENTAL REGULATION COMPLIANCE RISK. *NW Holdings and NW Natural are subject to environmental regulations for our ongoing businesses, compliance with which could adversely affect our operations or financial results.*

NW Holdings and NW Natural are subject to laws, regulations and other legal requirements enacted or adopted by federal, state and local governmental authorities relating to protection of the environment, including those legal requirements that govern discharges of substances into the air and water, the management and disposal of hazardous substances and waste, groundwater quality and availability, plant and wildlife protection, and other aspects of environmental regulation. For example, our natural gas operations are subject to reporting requirements to the EPA and the ODEQ regarding greenhouse gas emissions. These and other current and future additional environmental regulations could result in increased compliance costs or additional operating restrictions, which may or may not be recoverable in customer rates or through insurance. If these costs are not recoverable, they could have an adverse effect on NW Holdings' or NW Natural's financial condition and results of operations.

GLOBAL CLIMATE CHANGE RISK. *Future legislation, regulation or other initiatives (including ballot initiatives) to address global climate change may expose NW Holdings and NW Natural to regulatory and financial risk. Additionally, our businesses may be subject to physical risks associated with climate change, all of which could adversely affect NW Holdings' or NW Natural's financial condition, results of operations and cash flows.*

There are a number of international, federal and state legislative and regulatory initiatives being proposed and adopted in an attempt to measure, control or limit the effects of global warming and climate change, including greenhouse gas emissions such as carbon dioxide and methane. For example, there are current legislative efforts in Oregon, Washington, and other states in which we operate to cap or otherwise restrict the maximum GHGs an entity may emit without reduction efforts or other undertakings. Such current or future legislation, regulation or other initiatives (including ballot initiatives) could impose on our natural gas businesses operational requirements, additional charges to fund energy efficiency initiatives, or levy a tax based on carbon content. Such initiatives could result in us incurring additional costs to comply with the imposed restrictions, provide a cost advantage to energy sources other than natural gas, reduce demand for natural gas, impose costs or restrictions on end users of natural gas, impact the prices we charge our customers, impose increased costs on us associated with the adoption of new infrastructure and technology to respond to such requirements, and may impact cultural perception of our services or products negatively, diminishing the value of our brand, all of which could adversely affect NW Holdings' or NW Natural's business practices, financial condition and results of operations.

Climate change may cause physical risks, including an increase in sea level, intensified storms, water scarcity and changes in weather conditions, such as changes in precipitation, average temperatures and extreme wind or other climate conditions. A significant portion of the nation's gas infrastructure is located in areas susceptible to storm damage that could be aggravated by wetland and barrier island erosion, which could give rise to gas supply interruptions and price spikes.

These and other physical changes could result in disruptions to natural gas production and transportation systems potentially increasing the cost of gas and affecting our natural gas businesses' ability to procure gas to meet customer demand. These changes could also affect our distribution systems resulting in increased maintenance and capital costs, disruption of service, regulatory actions and lower customer satisfaction. Similar disruptions could occur in NW Holdings' water utility businesses. Additionally, to the extent that climate change adversely impacts the economic health or weather conditions of our service territory directly, it could adversely impact customer demand or our customers' ability to pay. Such physical risks could have an adverse effect on NW Holdings' or NW Natural's financial condition, results of operations, and cash flows.

STRATEGIC TRANSACTION RISK. *NW Holdings' and NW Natural's ability to successfully complete strategic transactions, including merger, acquisition, divestiture, joint venture, business development projects or other strategic transactions is subject to significant risks, including the risk that required regulatory or governmental approvals may not be obtained, risks relating to unknown problems or liabilities or problems or liabilities undisclosed to us, and the risk that for these or other reasons, we may be unable to achieve some or all of the benefits that we anticipate from such transactions, which could adversely affect NW Holdings' or NW Natural's financial condition, results of operations, and cash flows.*

From time to time, NW Holdings and NW Natural have pursued and may continue to pursue strategic transactions including merger, acquisition, divestiture, joint venture, business development projects or other strategic transactions, including the entry by NW Holdings into the water sector through the acquisition of a number of water utilities and a water services company, with NW Holdings' continuing to seek other such opportunities to acquire additional water companies. Any such transactions involve substantial risks, including the following:

- purchase or sale transactions that are contracted for may fail to close for a variety of reasons;
- acquired businesses or assets may not produce revenues, earnings or cash flow at anticipated levels;
- acquired businesses or assets could have, environmental, permitting, or other problems for which contractual protections prove inadequate;
- there may be difficulties in integration or operation costs of new businesses;
- there may be liabilities that were not disclosed to us, that exceed our estimates, or for which our rights to indemnification from the seller are limited;
- we may be unable to obtain the necessary regulatory or governmental approvals to close a transaction, such approvals may be granted subject to terms that are unacceptable to us, or we may be unable to achieve anticipated regulatory treatment of any such transaction, or such benefits may be delayed or not occur at all; or
- we may agree to sell assets for a price that is less than the book value of those assets.

One or more of these conditions could affect NW Holdings' and NW Natural's financial condition, results of operations, and cash flows.

BUSINESS DEVELOPMENT RISK. *NW Holdings' and NW Natural's business development projects may encounter unanticipated obstacles, costs, changes or delays that could result in a project becoming impaired, which could negatively impact NW Holdings' or NW Natural's financial condition, results of operations and cash flows.*

Business development projects involve many risks. We are currently engaged in several business development projects, including, but not limited to, NW Holdings' early planning and development stages for a regional pipeline in Oregon, and NW Natural's expansion of its gas storage facility at Mist. We may also engage in other business

development projects such as investments in additional long-term gas reserves, CNG refueling stations, RNG projects, or projects in the water sector. These projects may not be successful. Additionally, we may not be able to obtain required governmental permits and approvals to complete our projects in a cost-efficient or timely manner, potentially resulting in delays or abandonment of the projects. We could also experience issues such as: startup and construction delays; construction cost overruns; disputes with contractors; the inability to negotiate acceptable agreements such as rights-of-way, easements, construction, gas supply or other material contracts; changes in customer demand or commitment; public opposition to projects; changes in market prices; and operating cost increases. Additionally, we may be unable to finance our business development projects at acceptable interest rates or within a scheduled time frame necessary for completing the project. One or more of these events could result in the project becoming impaired, and such impairment could have an adverse effect on NW Holdings' or NW Natural's financial condition and results of operations.

JOINT PARTNER RISK. *Investing in business development projects through partnerships, joint ventures or other business arrangements affects our ability to manage certain risks and could adversely impact NW Holdings' or NW Natural's financial condition, results of operations and cash flows.*

We use joint ventures and other business arrangements to manage and diversify the risks of certain development projects, including NW Holdings' Trail West pipeline and Gill Ranch Facility and NW Natural's gas reserves agreements. NW Holdings or NW Natural may acquire or develop part-ownership interests in other projects in the future, including but not limited to, in the water sector. Under these arrangements, we may not be able to fully direct the management and policies of the business relationships, and other participants in those relationships may take action contrary to our interests, including making operational decisions that could negatively affect our costs and liabilities. In addition, other participants may withdraw from the project, divest important assets, become financially distressed or bankrupt, or have economic or other business interests or goals that are inconsistent with ours. For example, in January 2019, Pacific Gas & Electric Company, which owns the remaining 25 percent of the Gill Ranch Facility (75 percent of which is owned by NW Holdings), filed for bankruptcy protection. While NW Holdings will monitor that bankruptcy proceeding, and take appropriate actions in an attempt to protect its interests, it does not control, and cannot predict, the outcome of such proceedings and the impact, if any, of the proceeding on the operations of Gill Ranch or the planned sale by NW Holdings' of its interest in Gill Ranch.

NW Natural's gas reserves arrangements, which operate as a hedge backed by physical gas supplies, involve a number of risks, including: gas production that is significantly less than the expected volumes, or no gas volumes; operating costs that are higher than expected; changes in the consolidated tax position or tax laws that could affect NW Natural's ability to take, or the timing of, certain tax benefits that impact the financial outcome of this transaction; inherent risks of gas production, including disruption to

operations or a complete shut-in of the field; and one or more participants in one of these gas reserves arrangements acting contrary to NW Natural's interests. In addition, while the cost of the original gas reserves venture is currently included in customer rates and additional wells under that arrangement are recovered at specific costs, the occurrence of one or more of these risks could affect NW Natural's ability to recover this hedge in rates. Further, new gas reserves arrangements have not been approved for inclusion in rates, and regulators may ultimately determine to not include all or a portion of future transactions in rates. The realization of any of the above mentioned situations could adversely impact NW Holdings' or NW Natural's financial condition, results of operations and cash flows.

OPERATING RISK. *Transporting and storing natural gas involves numerous risks that may result in accidents and other operating risks and costs, some or all of which may not be fully covered by insurance, and which could adversely affect NW Holdings' or NW Natural's financial condition, results of operations and cash flows.*

NW Holdings and NW Natural are subject to all of the risks and hazards inherent in the businesses of gas distribution and storage, and water distribution, including:

- earthquakes, floods, storms, landslides and other severe weather incidents and natural hazards;
- leaks, losses or contamination of natural gas by other chemicals or compounds or by or of local water as a result of the malfunction of equipment or facilities;
- damages from third parties, including construction, farm and utility equipment or other surface users;
- operator errors;
- negative performance by our storage reservoirs, facilities, or wells that could cause us to fail to meet expected or forecasted operational levels or contractual commitments to our customers;
- problems maintaining, or the malfunction of, pipelines, wellbores and related equipment and facilities that form a part of the infrastructure that is critical to the operation of our gas distribution and storage facilities;
- collapse of underground storage caverns;
- operating costs that are substantially higher than expected;
- migration of natural gas through faults in the rock or to some area of the reservoir where existing wells cannot drain the gas effectively, resulting in loss of the gas;
- blowouts (uncontrolled escapes of gas from a pipeline or well) or other accidents, fires and explosions; and
- risks and hazards inherent in the drilling operations associated with the development of the gas storage facilities, and wells.

These risks could result in personal injury or loss of human life, damage to and destruction of property and equipment, pollution or other environmental damage, breaches of our contractual commitments, and may result in curtailment or suspension of operations, which in turn could lead to significant costs and lost revenues. Further, because our pipeline, storage and distribution facilities are in or near populated areas, including residential areas, commercial business centers, and industrial sites, any loss of human life or adverse financial outcomes resulting from such events could be significant. Additionally, we may not be able to maintain the level or types of insurance we desire, and the

insurance coverage we do obtain may contain large deductibles or fail to cover certain hazards or cover all potential losses. The occurrence of any operating risks not covered by insurance could adversely affect NW Holdings' or NW Natural's financial condition, results of operations and cash flows.

BUSINESS CONTINUITY RISK. *NW Holdings and NW Natural may be adversely impacted by local or national disasters, pandemic illness, terrorist activities, cyber-attacks or data breaches, and other extreme events to which we may not be able to promptly respond, which could adversely affect NW Holdings' or NW Natural's operations or financial condition.*

Local or national disasters, pandemic illness, terrorist activities, cyber-attacks and data breaches, and other extreme events are a threat to our assets and operations. Companies in critical infrastructure industries may face a heightened risk due to exposure to acts of terrorism, including physical and security breaches of our information technology infrastructure in the form of cyber-attacks. These attacks could target or impact our technology or mechanical systems that operate our distribution, transmission or storage facilities and result in a disruption in our operations, damage to our system and inability to meet customer requirements. In addition, the threat of terrorist activities could lead to increased economic instability and volatility in the price of natural gas or other necessary commodities that could affect our operations. Threatened or actual national disasters or terrorist activities may also disrupt capital or bank markets and our ability to raise capital or obtain debt financing, or impact our suppliers or our customers directly. Local disaster or pandemic illness could result in part of our workforce being unable to operate or maintain our infrastructure or perform other tasks necessary to conduct our business. A slow or inadequate response to events may have an adverse impact on our operations and earnings. We may not be able to maintain sufficient insurance to cover all risks associated with local and national disasters, pandemic illness, terrorist activities and other events. Additionally, large scale natural disasters or terrorist attacks could destabilize the insurance industry making insurance we do have unavailable, which could increase the risk that an event could adversely affect NW Holdings' or NW Natural's operations or financial results.

HOLDING COMPANY DIVIDEND RISK. *As a holding company, NW Holdings depends on its operating subsidiaries, including NW Natural, to meet financial obligations and the ability of NW Holdings to pay dividends on its common stock is dependent on the receipt of dividends and other payments from its subsidiaries, including NW Natural.*

As a holding company, NW Holdings' only significant assets are the stock and membership interests of its operating subsidiaries, which at this time is primarily NW Natural. NW Holdings' direct and indirect subsidiaries are separate and distinct legal entities, managed by their own boards of directors, and have no obligation to pay any amounts to their respective shareholders, whether through dividends, loans or other payments. The ability of these companies to pay dividends or make other distributions on their common stock is subject to, among other things: their results of operations, net income, cash flows and financial condition, as well as the success of their business strategies and

general economic and competitive conditions; the prior rights of holders of existing and future debt securities and any future preferred stock issued by those companies; and any applicable legal restrictions.

In addition, the ability of NW Holdings' subsidiaries to pay upstream dividends and make other distributions is subject to applicable state law and regulatory restrictions. Under the OPUC and WUTC regulatory approvals for the holding company formation, if NW Natural ceases to comply with credit and capital structure requirements approved by the OPUC and WUTC, it will not, with limited exceptions, be permitted to pay dividends to NW Holdings. Under the OPUC and WUTC orders authorizing the holding company reorganization, NW Natural may not pay dividends or make distributions to NW Holdings if NW Natural's credit ratings and common equity levels fall below specified ratings and levels. If NW Natural's long-term secured credit ratings are below A- for S&P and A3 for Moody's, dividends may be issued so long as NW Natural's common equity is 45% or above. If NW Natural's long-term secured credit ratings are below BBB for S&P and Baa2 for Moody's, dividends may be issued so long as NW Natural's common equity is 46% or above. Dividends may not be issued if NW Natural's long-term secured credit ratings fall to BB+ or below for S&P or Ba1 or below for Moody's, or if NW Natural's common equity is below 44%. In each case, with the common equity level to be determined on a preceding or projected 13-month basis.

EMPLOYEE BENEFIT RISK. *The cost of providing pension and postretirement healthcare benefits is subject to changes in pension assets and liabilities, changing employee demographics and changing actuarial assumptions, which may have an adverse effect on NW Holdings' or NW Natural's financial condition, results of operations and cash flows.*

Until NW Natural closed the pension plans to new hires, which for non-union employees was in 2006 and for union employees was in 2009, it provided pension plans and postretirement healthcare benefits to eligible full-time utility employees and retirees. About half of NW Natural's current utility employees were hired prior to these dates, and therefore remain eligible for these plans. Other businesses we acquire may also have pension plans. The costs of NW Natural, or the other applicable businesses we may acquire, for providing such benefits is subject to change in the market value of the pension assets, changes in employee demographics including longer life expectancies, increases in healthcare costs, current and future legislative changes, and various actuarial calculations and assumptions. The actuarial assumptions used to calculate our future pension and postretirement healthcare expenses may differ materially from actual results due to significant market fluctuations and changing withdrawal rates, wage rates, interest rates and other factors. These differences may result in an adverse impact on the amount of pension contributions, pension expense or other postretirement benefit costs recorded in future periods. Sustained declines in equity markets and reductions in bond rates may have a material adverse effect on the value of the pension fund assets and liabilities. In these circumstances, NW Natural may be required to recognize increased contributions and pension expense earlier than it had planned to the extent that the value of pension assets is less than the total

anticipated liability under the plans, which could have a negative impact on NW Holdings' and NW Natural's financial condition, results of operations and cash flows.

WORKFORCE RISK. *NW Holdings' and NW Natural's businesses are heavily dependent on being able to attract and retain qualified employees and maintain a competitive cost structure with market-based salaries and employee benefits, and workforce disruptions could adversely affect NW Holdings' or NW Natural's operations and results.*

NW Holdings' and NW Natural's ability to implement our business strategy and serve our customers is dependent upon our continuing ability to attract and retain talented professionals and a technically skilled workforce, and being able to transfer the knowledge and expertise of our workforce to new employees as our largely older workforce retires. We expect that a significant portion of our workforce will retire within the current decade, which will require that we attract, train and retain skilled workers to prevent loss of institutional knowledge or skills gaps. Without an appropriately skilled workforce, our ability to provide quality service and meet our regulatory requirements will be challenged and this could negatively impact NW Holding's and NW Natural's earnings. Additionally, a majority of NW Natural workers are represented by the OPEIU Local No. 11 AFL-CIO, and are covered by a collective bargaining agreement that extends to November 30, 2019. Disputes with the union representing NW Natural employees over terms and conditions of their agreement, or failure to timely and effectively renegotiate the agreement, could result in instability in our labor relationship and work stoppages that could impact the timely delivery of gas and other services from our utility and storage facilities, which could strain relationships with customers and state regulators and cause a loss of revenues. The collective bargaining agreements may also limit our flexibility in dealing with NW Natural's workforce, and the ability to change work rules and practices and implement other efficiency-related improvements to successfully compete in today's challenging marketplace, which may negatively affect NW Holdings' and NW Natural's financial condition and results of operations.

LEGISLATIVE, COMPLIANCE AND TAXING AUTHORITY RISK. *NW Holdings and NW Natural are subject to governmental regulation, and compliance with local, state and federal requirements, including taxing requirements, and unforeseen changes in or interpretations of such requirements could affect NW Holdings' or NW Natural's financial condition and results of operations.*

NW Holdings and NW Natural are subject to regulation by federal, state and local governmental authorities. We are required to comply with a variety of laws and regulations and to obtain authorizations, permits, approvals and certificates from governmental agencies in various aspects of our business. Significant changes in federal, state, or local governmental leadership can accelerate or amplify changes in existing laws or regulations, or the manner in which they are interpreted or enforced. For example, the current U.S. presidential administration has made numerous leadership changes at federal administrative agencies since the 2016 U.S. presidential election. Moreover, the U.S. Congress and the U.S. presidential administration may

make substantial changes to fiscal, tax, regulation and other federal policies. The current U.S. presidential administration has called for and implemented significant changes to U.S. fiscal policies, U.S. trade, healthcare, immigration, foreign, and government regulatory policy. To the extent the U.S. Congress or U.S. presidential administration implements changes to U.S. policy, those changes may impact, among other things, the U.S. and global economy, international trade and relations, unemployment, immigration, corporate taxes, healthcare, the U.S. regulatory environment, inflation and other areas. In addition, foreign governments may implement changes to their policies, in response to changes to U.S. policy or otherwise. Although we cannot predict the impact, if any, of these changes to our businesses, they could adversely affect NW Holdings' or NW Natural's financial condition and results of operations. Until we know what policy changes are made and how those changes impact our businesses and the business of our competitors over the long term, we will not know if, overall, we will benefit from them or be negatively affected by them.

Though we cannot predict changes in laws, regulations, or enforcement, we expect there to continue to be a number of significant changes. We cannot predict with certainty the impact of any future revisions or changes in interpretations of existing regulations or the adoption of new laws and regulations. Additionally, any failure to comply with existing or new laws and regulations could result in fines, penalties or injunctive measures that could affect operating assets. For example, under the Energy Policy Act of 2005, the FERC has civil authority under the Natural Gas Act to impose penalties for current violations of in excess of \$1 million per day for each violation. In addition, as the regulatory environment for our businesses increases in complexity, the risk of inadvertent noncompliance may also increase. Changes in regulations, the imposition of additional regulations, and the failure to comply with laws and regulations could negatively influence NW Holdings' or NW Natural's operating environment and results of operations.

Additionally, changes in federal, state or local tax laws and their related regulations, or differing interpretations or enforcement of applicable law by a federal, state or local taxing authority, could result in substantial cost to us and negatively affect our results of operations. Tax law and its related regulations and case law are inherently complex and dynamic. Disputes over interpretations of tax laws may be settled with the taxing authority in examination, upon appeal or through litigation. Our judgments may include reserves for potential adverse outcomes regarding tax positions that have been taken that may be subject to challenge by taxing authorities. Changes in laws, regulations or adverse judgments and the inherent difficulty in quantifying potential tax effects of business decisions may negatively affect NW Holdings' or NW Natural's financial condition and results of operations.

In this regard, the Tax Cuts and Jobs Act of 2017 was approved by the U.S. Congress on December 20, 2017 and signed into law by the U.S. President on December 22, 2017. This legislation makes significant changes to the U.S. Internal Revenue Code. Such changes include a reduction in the corporate tax rate from 35% to 21% and limitations on certain corporate deductions and credits, among other

changes. Certain of these changes may negatively affect NW Holdings' and NW Natural's financial condition and results of operations.

There is uncertainty as to how our regulators will reflect the impact of the legislation in rates. The resulting ratemaking treatment may negatively affect NW Holdings' or NW Natural's financial condition and results of operations.

SAFETY REGULATION RISK. *NW Holdings and NW Natural may experience increased federal, state and local regulation of the safety of our systems and operations, which could adversely affect NW Holdings' or NW Natural's operating costs and financial results.*

The safety and protection of the public, our customers and our employees is and will remain our top priority. We are committed to consistently monitoring and maintaining our distribution systems and storage operations to ensure that natural gas is acquired, stored and delivered safely, reliably and efficiently. Given recent high-profile natural gas explosions, leaks and accidents in other parts of the country involving both distribution systems and storage facilities, we anticipate that the natural gas industry may be the subject of even greater federal, state and local regulatory oversight. For example, in 2016, the Protecting our Infrastructure of Pipelines and Enhancing Safety Act (PIPES Act) was signed into law increasing regulations for natural gas storage pipelines and underground storage facilities. Similarly, in 2016, California passed legislation directing the Department of Oil, Gas and Geothermal Resources (DOGGR) to develop regulations affecting gas storage operations. DOGGR has issued regulations which require certain integrity testing and tubing for wells at the Gill Ranch Facility within the next 7 years.

We intend to work diligently with industry associations and federal and state regulators to seek to ensure compliance with these and other new laws. We expect there to be increased costs associated with compliance, and those costs could be significant. If these costs are not recoverable in our customer rates, they could have a negative impact on NW Holdings' and NW Natural's operating costs and financial results.

HEDGING RISK. *NW Natural's risk management policies and hedging activities cannot eliminate the risk of commodity price movements and other financial market risks, and its hedging activities may expose it to additional liabilities for which rate recovery may be disallowed, which could result in an adverse impact on NW Holdings' and NW Natural's operating revenues, costs, derivative assets and liabilities and operating cash flows.*

NW Natural's gas purchasing requirements expose it to risks of commodity price movements, while its use of debt and equity financing exposes it to interest rate, liquidity and other financial market risks. NW Natural attempts to manage these exposures with both financial and physical hedging mechanisms, including its gas reserves transactions which are hedges backed by physical gas supplies. While NW Natural has risk management procedures for hedging in place, they may not always work as planned and cannot entirely eliminate the risks associated with hedging. Additionally, NW Natural's hedging activities may cause it to

incur additional expenses to obtain the hedge. NW Natural does not hedge its entire interest rate or commodity cost exposure, and the unhedged exposure will vary over time. Gains or losses experienced through hedging activities, including carrying costs, generally flow through NW Natural's PGA mechanism or are recovered in future general rate cases. However, the hedge transactions NW Natural enters into for utility purposes are subject to a prudence review by the OPUC and WUTC, and, if found imprudent, those expenses may be, and have been previously, disallowed, which could have an adverse effect on NW Holdings' or NW Natural's financial condition and results of operations.

In addition, NW Natural's actual business requirements and available resources may vary from forecasts, which are used as the basis for its hedging decisions, and could cause its exposure to be more or less than anticipated. Moreover, if NW Natural's derivative instruments and hedging transactions do not qualify for regulatory deferral and it does not elect hedge accounting treatment under U.S. GAAP, NW Holdings' or NW Natural's results of operations and financial condition could be adversely affected.

NW Natural also has credit-related exposure to derivative counterparties. Counterparties owing NW Natural or its subsidiaries money or physical natural gas commodities could breach their obligations. Should the counterparties to these arrangements fail to perform, NW Natural may be forced to enter into alternative arrangements to meet its normal business requirements. In that event, NW Holdings' or NW Natural's financial results could be adversely affected. Additionally, under most of NW Natural's hedging arrangements, any downgrade of its senior unsecured long-term debt credit rating could allow its counterparties to require NW Natural to post cash, a letter of credit or other form of collateral, which would expose NW Natural to additional costs and may trigger significant increases in borrowing from its credit facilities or equity contribution needs from NW Holdings, if the credit rating downgrade is below investment grade. Further, based on current interpretations, NW Natural is not considered a "swap dealer" or "major swap participant" in 2019, so NW Natural is exempt from certain requirements under the Dodd-Frank Act. If NW Natural is unable to claim this exemption, it could be subject to higher costs for its derivatives activities, and such higher costs could have a negative impact on NW Holdings' and NW Natural's operating costs and financial results.

INABILITY TO ACCESS CAPITAL MARKET RISK. *NW Holdings' or NW Natural's inability to access capital, or significant increases in the cost of capital, could adversely affect NW Holdings' or NW Natural's financial condition and results of operations.*

NW Holdings' and NW Natural's ability to obtain adequate and cost effective short-term and long-term financing depends on maintaining investment grade credit profiles as well as the existence of liquid and stable financial markets. NW Holdings relies on access to equity and bank markets to finance equity contributions to subsidiaries and other business requirements. NW Natural relies on access to capital and bank markets, including commercial paper and bond markets, to finance its operations, construction

expenditures and other business requirements, and to refund maturing debt that cannot be funded entirely by internal cash flows. Disruptions in capital markets could adversely affect our ability to access short-term and long-term financing. Our access to funds under committed credit facilities, which are currently provided by a number of banks, is dependent on the ability of the participating banks to meet their funding commitments. Those banks may not be able to meet their funding commitments if they experience shortages of capital and liquidity. Disruptions in the bank or capital financing markets as a result of economic uncertainty, changing or increased regulation of the financial sector, or failure of major financial institutions could adversely affect NW Holdings' and NW Natural's access to capital and negatively impact our ability to run our businesses and make strategic investments.

NW Natural is currently rated by S&P and Moody's and a negative change in its credit ratings, particularly below investment grade, could adversely affect its cost of borrowing and access to sources of liquidity and capital.

Such a downgrade could further limit its access to borrowing under available credit lines. Additionally, downgrades in its current credit ratings below investment grade could cause additional delays in NW Natural's ability to access the capital markets while it seeks supplemental state regulatory approval, which could hamper its ability to access credit markets on a timely basis. NW Holdings' credit profile is largely supported by NW Natural's credit ratings and any negative change in NW Natural's credit ratings would likely negatively impact NW Holdings' access to sources of liquidity and capital and cost of borrowing. A credit downgrade to NW Natural, or resulting negative impact on NW Holdings, could also require additional support in the form of letters of credit, cash or other forms of collateral and otherwise adversely affect NW Holdings' or NW Natural's financial condition and results of operations.

REPUTATIONAL RISKS. *Customers', legislators', and regulators' opinions of NW Holdings and NW Natural are affected by many factors, including system reliability and safety, protection of customer information, rates, media coverage, and public sentiment. To the extent that customers, legislators, or regulators have or develop a negative opinion of our businesses, NW Holdings' and NW Natural's financial positions, results of operations and cash flows could be adversely affected.*

A number of factors can affect customer satisfaction including: service interruptions or safety concerns due to failures of equipment or facilities or from other causes, and our ability to promptly respond to such failures; our ability to safeguard sensitive customer information; the timing and magnitude of rate increases; and volatility of rates. Customers', legislators', and regulators' opinions of us can also be affected by media coverage, including the proliferation of social media, which may include information, whether factual or not, that damages our brand and reputation.

If customers, legislators, or regulators have or develop a negative opinion of us and our services, this could result in increased regulatory oversight and could affect the returns on common equity we are allowed to earn. Additionally,

negative opinions about us could make it more difficult for us to achieve favorable legislative or regulatory outcomes. Negative opinions could also result in sales volumes reductions or increased use of other sources of energy. Any of these consequences could adversely affect NW Holdings' or NW Natural's financial position, results of operations and cash flows.

RELIANCE ON TECHNOLOGY RISK. *NW Holdings' and NW Natural's efforts to integrate, consolidate and streamline each of their operations has resulted in increased reliance on technology, the failure or security breach of which could adversely affect NW Holdings' or NW Natural's financial condition and results of operations.*

Over the last several years NW Holdings and NW Natural have undertaken a variety of initiatives to integrate, standardize, centralize and streamline operations. These efforts have resulted in greater reliance on technological tools such as, at NW Natural: an enterprise resource planning system, an automated dispatch system, an automated meter reading system, a customer information system, a web-based ordering and tracking system, and other similar technological tools and initiatives. The failure of any of these or other similarly important technologies, or our inability to have these technologies supported, updated, expanded or integrated into other technologies, could adversely impact operations. We take precautions to protect our systems, but there is no guarantee that the procedures we have implemented to protect against unauthorized access to secured data and systems are adequate to safeguard against all security breaches. Our businesses could experience breaches of security pertaining to sensitive customer, employee, and vendor information maintained by us in the normal course of business, which could adversely affect our reputation, diminish customer confidence, disrupt operations, materially increase the costs we incur to protect against these risks, and subject us to possible financial liability or increased regulation or litigation, any of which could adversely affect NW Holdings' or NW Natural's financial condition and results of operations.

Furthermore, we rely on information technology systems in the operation of our businesses. There are various risks associated with these systems, including hardware and software failure, communications failure, data distortion or destruction, unauthorized access to data, misuse of proprietary or confidential data, unauthorized control through electronic means, programming mistakes and other inadvertent errors or deliberate human acts. In particular, cyber security attacks, data breaches, terrorism or other malicious acts could damage, destroy or disrupt all of our business systems. Any failure of information technology systems could result in a loss of operating revenues, an increase in operating expenses and costs to repair or replace damaged assets. As these potential cyber security attacks become more common and sophisticated, we could be required to incur costs to strengthen our systems or obtain specific insurance coverage against potential losses.

REGULATORY ACCOUNTING RISK. *In the future, NW Holdings or NW Natural may no longer meet the criteria for continued application of regulatory accounting practices for all or a portion of our regulated operations.*

If we can no longer apply regulatory accounting, we could be required to write off our regulatory assets and precluded from the future deferral of costs not recovered through rates at the time such amounts are incurred, even if we are expected to recover these amounts from customers in the future.

GAS PRICE RISK. *Higher natural gas commodity prices and volatility in the price of gas may adversely affect NW Natural's NGD business, whereas lower gas price volatility may adversely affect NW Natural's and NW Holdings' gas storage business, in each case negatively affecting NW Holdings' and NW Natural's results of operations and cash flows.*

The cost of natural gas is affected by a variety of factors, including weather, changes in demand, the level of production and availability of natural gas supplies, transportation constraints, availability and cost of pipeline capacity, federal and state energy and environmental regulation and legislation, natural disasters and other catastrophic events, national and worldwide economic and political conditions, and the price and availability of alternative fuels. At NW Natural, the cost we pay for natural gas is generally passed through to customers through an annual PGA rate adjustment. If gas prices were to increase significantly, it would raise the cost of energy to NW Natural's customers, potentially causing those customers to conserve or switch to alternate sources of energy. Significant price increases could also cause new home builders and commercial developers to select alternative energy sources. Decreases in the volume of gas NW Natural sells could reduce NW Holdings or NW Natural's earnings, and a decline in customers could slow growth in future earnings. Additionally, because a portion (10% or 20%) of any difference between the estimated average PGA gas cost in rates and the actual average gas cost incurred is recognized as current income or expense, higher average gas costs than those assumed in setting rates can adversely affect NW Holdings' and NW Natural's operating cash flows, liquidity and results of operations. Additionally, notwithstanding NW Natural's current rate structure, higher gas costs could result in increased pressure on the OPUC or the WUTC to seek other means to reduce NW Natural's rates, which also could adversely affect NW Holdings' and NW Natural's results of operations and cash flows.

Higher gas prices may also cause NW Natural to experience an increase in short-term debt and temporarily reduce liquidity because it pays suppliers for gas when it is purchased, which can be in advance of when these costs are recovered through rates. Significant increases in the price of gas can also slow collection efforts as customers experience increased difficulty in paying their higher energy bills, leading to higher than normal delinquent accounts receivable resulting in greater expense associated with collection efforts and increased bad debt expense.

Conversely, storage businesses benefit from price volatility, which impacts the level of demand for services and the rates that can be charged for storage services. Largely due to the abundant supply of natural gas made available by hydraulic fracturing techniques, natural gas prices have dropped significantly to levels that are near historic lows. If prices and volatility remain low or decline further, then the

demand for storage services, and the prices that we will be able to charge for those services, may decline or be depressed for a prolonged period of time. Prices below the costs to operate a storage facility could result in a decision to shut-in all or a portion of the facility. A sustained decline in these prices or a shut-in of all or a portion of the facility could have an adverse impact on NW Holdings' or NW Natural's financial condition, results of operations and cash flows.

IMPAIRMENT OF LONG-LIVED ASSETS OR GOODWILL RISK.

Impairments of the value of long-lived assets or goodwill could have a material effect on NW Holdings' or NW Natural's financial condition, or results of operations.

NW Holdings and NW Natural review the carrying value of long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets might not be recoverable. The determination of recoverability is based on the undiscounted net cash flows expected to result from the operation of such assets. Projected cash flows depend on the future operating costs and projected revenues associated with the asset. In 2017, NW Natural recognized a \$192.5 million impairment of long-lived assets at the Gill Ranch Facility as of December 31, 2017. We review our other long-lived assets to determine if an impairment analysis is necessary.

We review the carrying value of goodwill annually or whenever events or changes in circumstances indicate that such carrying value may not be recoverable. A goodwill impairment analysis begins with a qualitative analysis of events and circumstances. If the qualitative assessment indicates that the carrying value may be at risk, we will perform a quantitative assessment and recognize a goodwill impairment for any amount in which the fair value of a reporting unit exceeds its fair value. Any impairment charge taken with respect to our long-lived assets or goodwill could be material and could have a material effect on NW Holdings' or NW Natural's financial condition and results of operations.

CUSTOMER GROWTH RISK. *NW Holdings' and NW Natural's NGD margin, earnings and cash flow may be negatively affected if we are unable to sustain customer growth rates in our NGD segment.*

NW Natural's NGD margins and earnings growth have largely depended upon the sustained growth of its residential and commercial customer base due, in part, to the new construction housing market, conversions of customers to natural gas from other energy sources and growing commercial use of natural gas. The last recession slowed new construction. While new home construction has resumed and the multi-family composition has been higher than its pre-recession pace, overall construction has not returned to the pre-recession pace, and there are predictions of an impending new recessionary cycle. Insufficient growth in these markets, for economic, political or other reasons could adversely affect NW Holdings' or NW Natural's utility margin, earnings and cash flows.

RISK OF COMPETITION. *Our NGD business is subject to increased competition which could negatively affect NW Holdings' or NW Natural's results of operations.*

In the residential and commercial markets, NW Natural's NGD business competes primarily with suppliers of electricity, fuel oil, and propane. In the industrial market, NW Natural competes with suppliers of all forms of energy. Competition among these forms of energy is based on price, efficiency, reliability, performance, market conditions, technology, environmental impacts and public perception. Technological improvements in other energy sources such as heat pumps, batteries or other alternative technologies could erode NW Natural's competitive advantage. If natural gas prices rise relative to other energy sources, or if the cost, environmental impact or public perception of such other energy sources improves relative to natural gas, it may negatively affect NW Natural's ability to attract new customers or retain our existing residential, commercial and industrial customers, which could have a negative impact on our customer growth rate and NW Holdings' and NW Natural's results of operations.

Our natural gas storage operations compete primarily with other storage facilities and pipelines. Natural gas storage is an increasingly competitive business, with the ability to expand or build new storage capacity in California, the U.S. Rocky Mountains and elsewhere in the United States and Canada. Increased competition in the natural gas storage business could reduce the demand for our natural gas storage services, drive prices down for our storage business, and adversely affect our ability to renew or replace existing contracts at rates sufficient to maintain current revenues and cash flows, which could adversely affect NW Holdings' and NW Natural's financial condition, results of operations and cash flows.

RELIANCE ON THIRD PARTIES TO SUPPLY NATURAL GAS

RISK. *NW Natural relies on third parties to supply the natural gas in its NGD segment, and limitations on NW Natural's ability to obtain supplies, or failure to receive expected supplies for which it has contracted, could have an adverse impact on NW Holdings' or NW Natural's financial results.*

NW Natural's ability to secure natural gas for current and future sales depends upon its ability to purchase and receive delivery of supplies of natural gas from third parties. NW Natural, and in some cases, its suppliers of natural gas, does not have control over the availability of natural gas supplies, competition for those supplies, disruptions in those supplies, priority allocations on transmission pipelines, or pricing of those supplies. Additionally, third parties on whom NW Natural relies may fail to deliver gas for which it has contracted. For example, on October 9, 2018, a 36-inch pipeline near Prince George, British Columbia owned by Enbridge ruptured, disrupting natural gas flows from Canada into Washington while the ruptured pipeline and an adjacent pipeline were assessed and the ruptured pipeline was repaired. Once repaired, pressurization levels for those pipelines were reduced for assessment and testing. If NW Natural is unable or limited in its ability to obtain natural gas from its current suppliers or new sources, it may not be able to meet customers' gas requirements and would likely incur costs associated with actions necessary to mitigate service disruptions, both of which could significantly and negatively impact NW Holdings' and NW Natural's results of operations.

SINGLE TRANSPORTATION PIPELINE RISK. *NW Natural relies on a single pipeline company for the transportation of gas to its service territory, a disruption of which could adversely impact its ability to meet customers' gas requirements, which could significantly and negatively impact NW Holdings' and NW Natural's results of operations.*

NW Natural's distribution system is directly connected to a single interstate pipeline, which is owned and operated by Northwest Pipeline. The pipeline's gas flows are bi-directional, transporting gas into the Portland metropolitan market from two directions: (1) the north, which brings supplies from the British Columbia and Alberta supply basins; and (2) the east, which brings supplies from the Alberta and the U.S. Rocky Mountain supply basins. If there is a rupture or inadequate capacity in the pipeline, NW Natural may not be able to meet its customers' gas requirements and we would likely incur costs associated with actions necessary to mitigate service disruptions, both of which could significantly and negatively impact NW Holdings' and NW Natural's results of operations.

THIRD PARTY PIPELINE RISK. *NW Holdings' and NW Natural's gas storage businesses depend on third-party pipelines that connect our storage facilities to interstate pipelines, the failure or unavailability of which could adversely affect NW Holdings' or NW Natural's financial condition, results of operations and cash flows.*

Our gas storage facilities are reliant on the continued operation of a third-party pipeline and other facilities that provide delivery options to and from our storage facilities. Because we do not own all of these pipelines, their operations are not within our control. If the third-party pipeline to which we are connected were to become unavailable for current or future withdrawals or injections of natural gas due to repairs, damage to the infrastructure, lack of capacity or other reasons, our ability to operate efficiently and satisfy our customers' needs could be compromised, thereby potentially having an adverse impact on NW Holdings' or NW Natural's financial condition, results of operations and cash flows.

WEATHER RISK. *Warmer than average weather may have a negative impact on our revenues and results of operations.*

We are exposed to weather risk in our natural gas business, primarily at NW Natural. A majority of NW Natural's gas volume is driven by gas sales to space heating residential and commercial customers during the winter heating season. Current NW Natural rates are based on an assumption of average weather. Warmer than average weather typically results in lower gas sales. Colder weather typically results in higher gas sales. Although the effects of warmer or colder weather on utility margin in Oregon are expected to be mitigated through the operation of NW Natural's weather normalization mechanism, weather variations from normal could adversely affect utility margin because NW Natural may be required to purchase more or less gas at spot rates, which may be higher or lower than the rates assumed in its PGA. Also, a portion of NW Natural's Oregon residential and commercial customers (usually less than 10%) have opted out of the weather normalization mechanism, and 11% of its customers are

located in Washington where it does not have a weather normalization mechanism. These effects could have an adverse effect on NW Holdings' and NW Natural's financial condition, results of operations and cash flows.

CUSTOMER CONSERVATION RISK. *Customers' conservation efforts may have a negative impact on NW Holdings' and NW Natural's revenues.*

An increasing national focus on energy conservation, including improved building practices and appliance efficiencies may result in increased energy conservation by customers. This can decrease NW Natural's sales of natural gas and adversely affect NW Holdings' or NW Natural's results of operations because revenues are collected mostly through volumetric rates, based on the amount of gas sold. In Oregon, NW Natural has a conservation tariff which is designed to recover lost utility margin due to declines in residential and small commercial customers' consumption. However, NW Natural does not have a conservation tariff in Washington that provides it this margin protection on sales to customers in that state. Similar conservation risks exist for water utilities. Customers' conservation efforts may have a negative impact on NW Holdings' and NW Natural's financial condition, revenues and results of operations.

Risks Related Primarily to NW Holdings' Water Sector Businesses

NEW WATER SECTOR BUSINESS. *NW Holdings has entered the water sector through the acquisition of a number of water companies. Water businesses are subject to a number of risks in addition to the risks described above.*

Although the water businesses are not currently expected to materially contribute to the results of operations of NW Holdings, these businesses are subject to risks, in addition to those described above that could adversely affect their results of operations, including:

- contamination of water supplies, including water provided to customers;
- interruptions in water supplies and droughts;
- conservation efforts by customers;
- regulatory requirements; and
- weather conditions.

Significant losses, liabilities or impairments arising from these businesses may adversely affect NW Holdings' financial position or results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We have no unresolved staff comments.

ITEM 2. PROPERTIES

NW Natural's Natural Gas Distribution Properties

NW Natural's natural gas pipeline system consists of approximately 20,000 miles of distribution and transmission mains located in its service territory in Oregon and Washington. In addition, the pipeline system includes service pipelines, meters and regulators, and gas regulating and metering stations. Natural gas pipeline mains are located in municipal streets or alleys pursuant to franchise or occupation ordinances, in county roads or state highways pursuant to agreements or permits granted pursuant to statute, or on lands of others pursuant to easements obtained from the owners of such lands. NW Natural also holds permits for the crossing of numerous navigable waterways and smaller tributaries throughout our entire service territory.

NW Natural owns service building facilities in Portland, Oregon, as well as various satellite service centers, garages, warehouses, and other buildings necessary and useful in the conduct of its business. Resource centers are maintained on owned or leased premises at convenient points in the distribution system to provide service within NW Natural's service territory. NW Natural also owns LNG storage facilities in Portland and near Newport, Oregon.

NW Natural also leases office space in Portland for its corporate headquarters, which expires on May 31, 2020. In anticipation of the expiration of the current lease, NW Natural executed an extensive search and evaluation process that focused on seismic preparedness, safety, reliability, the least cost to our customers, and a continued commitment to our employees and the communities we serve. In October 2017, NW Natural entered into a 20-year operating lease agreement for a new headquarters in Portland. Payments under the new lease are expected to commence in 2020.

NW Natural's Mortgage and Deed of Trust (Mortgage) is a first mortgage lien on substantially all of the property constituting our natural gas distribution plant balances.

These properties are used in the NGD segment.

NW Natural's Natural Gas Storage Properties

NW Natural holds leases and other property interests in approximately 12,000 net acres of underground natural gas storage in Oregon and easements and other property interests related to pipelines associated with these facilities. NW Natural owns rights to depleted gas reservoirs near Mist, Oregon that are continuing to be developed and operated as underground gas storage facilities. NW Natural also holds all future storage rights in certain other areas of the Mist gas field in Oregon in addition to other leases and property interests.

A portion of these properties are used in the NGD segment.

NWN Water's Distribution Properties

We own and maintain water pipelines and hold related leases and other property interests in Oregon, Washington, and Idaho, associated with water distribution entities that were acquired during 2018. Pipelines are located in

municipal streets or alleys pursuant to franchise or occupation ordinances, in county roads or state highways pursuant to agreements or permits granted pursuant to statute, or on lands of others pursuant to easements obtained from the owners of such lands. These properties are used by entities that are aggregated and reported as other under NW Holdings.

We consider all of our properties currently used in our operations, both owned and leased, to be well maintained, in good operating condition, and, along with planned additions, adequate for our present and foreseeable future needs.

ITEM 3. LEGAL PROCEEDINGS

Other than the proceedings disclosed in Note 17, we have only nonmaterial litigation in the ordinary course of business.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

NW Holdings' common stock is listed and trades on the New York Stock Exchange under the symbol NWN.

There is no established public trading market for NW Natural's common stock.

As of February 22, 2019, there were 4,950 holders of record of NW Holdings' common stock and NW Holdings was the sole holder of NW Natural's common stock.

The following table provides information about purchases of NW Holdings' equity securities that are registered pursuant to Section 12 of the Securities Exchange Act of 1934 during the quarter ended December 31, 2018:

<u>Issuer Purchases of Equity Securities</u>				
Period	Total Number of Shares Purchased ⁽¹⁾	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽²⁾	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs ⁽²⁾
Balance forward			2,124,528	\$ 16,732,648
10/01/18-10/31/18	—	\$ —	—	—
11/01/18-11/30/18	1,147	69.02	—	—
12/01/18-12/31/18	—	—	—	—
Total	1,147		2,124,528	\$ 16,732,648

⁽¹⁾ During the quarter ended December 31, 2018, no shares of NW Holdings common stock were purchased on the open market to meet the requirements of our Dividend Reinvestment and Direct Stock Purchase Plan. However, 1,147 shares of NW Holdings common stock were purchased on the open market to meet the requirements of share-based compensation programs. During the quarter ended December 31, 2018, no shares of NW Holdings common stock were accepted as payment for stock option exercises pursuant to the NW Natural Restated Stock Option Plan.

⁽²⁾ During the quarter ended December 31, 2018, no shares of NW Holdings common stock were repurchased pursuant to the Board-Approved share repurchase program. In October 2018, we received NW Holdings Board Approval to extend the repurchase program through May 2019. For more information on this program, see Note 5.

ITEM 6. SELECTED FINANCIAL DATA

NORTHWEST NATURAL HOLDING COMPANY

For the year ended December 31,

<i>In thousands, except per share data</i>	2018	2017	2016	2015	2014
Operating revenues	\$ 706,143	\$ 755,038	\$ 668,173	\$ 717,888	\$ 747,251
Earnings from continuing operations	67,311	72,073	62,419	60,026	66,006
Loss from discontinued operations, net of tax	(2,742)	(127,696)	(3,524)	(6,323)	(7,314)
Net income (loss)	64,569	(55,623)	58,895	53,703	58,692
Earnings from continuing operations per share of common stock:					
Basic	\$ 2.34	\$ 2.51	\$ 2.26	\$ 2.19	\$ 2.43
Diluted	2.33	2.51	2.25	2.19	2.42
Loss from discontinued operations per share of common stock:					
Basic	\$ (0.10)	\$ (4.45)	\$ (0.13)	\$ (0.23)	\$ (0.27)
Diluted	(0.09)	(4.44)	(0.13)	(0.23)	(0.26)
Earnings (Loss) per share of common stock:					
Basic	\$ 2.24	\$ (1.94)	\$ 2.13	\$ 1.96	\$ 2.16
Diluted	2.24	(1.93)	2.12	1.96	2.16
Dividends paid per share of common stock	1.89	1.88	1.87	1.86	1.85
Total assets, end of period	\$ 3,242,662	\$ 3,039,746	\$ 3,079,801	\$ 3,069,410	\$ 3,056,326
Total equity	762,634	742,776	850,497	780,972	767,321
Long-term debt ⁽¹⁾	706,247	683,184	679,334	569,445	593,095

⁽¹⁾ Excludes \$20 million of long-term debt in 2014 associated with our discontinued operations.

NORTHWEST NATURAL GAS COMPANY

For the year ended December 31,

<i>In thousands, except per share data</i>	2018	2017	2016	2015	2014
Operating revenues	\$ 705,571	\$ 755,038	\$ 667,949	\$ 717,664	\$ 747,027
Earnings from continuing operations	68,049	71,720	62,835	60,511	66,504
Loss from discontinued operations, net of tax	(1,723)	(127,343)	(3,940)	(6,808)	(7,812)
Net income (loss)	66,326	(55,623)	58,895	53,703	58,692
Total assets, end of period	\$ 3,192,736	\$ 3,043,676	\$ 3,081,470	\$ 3,072,100	\$ 3,063,712
Total equity	715,668	742,776	850,497	780,972	767,321
Long-term debt ⁽¹⁾	704,134	683,184	679,334	569,445	593,095

⁽¹⁾ Excludes \$20 million of long-term debt in 2014 associated with Gill Ranch discontinued operations.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

On October 1, 2018, we completed a reorganization into a holding company structure. We believe that our holding company structure is an agile and efficient platform from which to pursue, finance, and oversee new opportunities, such as in the water sector, while also providing legal separation between regulated natural gas distribution operations and other businesses. In this reorganization, shareholders of NW Natural (the predecessor publicly held parent company) became shareholders of NW Holdings, on a one-for-one basis, with the same number of shares and same ownership percentage as they held in NW Natural immediately prior to the reorganization. NW Natural became a wholly-owned subsidiary of NW Holdings. Additionally, certain subsidiaries of NW Natural were transferred to NW Holdings. As required under accounting guidance, these subsidiaries are presented as discontinued operations in the consolidated results of NW Natural within this report.

NW Holdings is a holding company headquartered in Portland, Oregon and owns NW Natural, NWN Water, and other businesses and activities. NW Natural is NW Holdings' largest subsidiary.

NW Natural's natural gas distribution activities are reported in the natural gas distribution (NGD) segment, formerly titled and reported as the utility segment. All other business activities, including certain gas storage activities, water businesses, and other investments and activities are aggregated and reported as other at their respective registrant. References in this discussion to "Notes" are to the Notes to the Consolidated Financial Statements in Item 8 of this report.

In addition, NW Holdings has reported discontinued operations results related to the pending sale of Gill Ranch Storage, LLC (Gill Ranch). NW Natural Gas Storage, LLC (NWN Gas Storage), currently an indirect wholly-owned subsidiary of NW Holdings, entered into a Purchase and Sale Agreement during the second quarter of 2018 that provides for the sale of all membership interests in Gill Ranch. Gill Ranch owns a 75% interest in the natural gas storage facility located near Fresno, California known as the Gill Ranch Gas Storage Facility. Pacific Gas and Electric Company (PG&E) owns the remaining 25% interest in the Gill Ranch Gas Storage Facility. For more information, see "Results of Operations - Pending Sale of Gill Ranch Storage" below.

The following is management's assessment of NW Holdings' and NW Natural's financial condition, including the principal factors that affect results of operations. The discussion covers the years ended December 31, 2018, 2017, and 2016 and refers to the consolidated results of NW Holdings, the substantial majority of which consist of the operating results of NW Natural. When significant activity exists at NW Holdings that does not exist at NW Natural, additional disclosure has been provided.

NW Holdings' direct and indirect wholly-owned subsidiaries include:

- Northwest Natural Gas Company (NW Natural);
 - Northwest Energy Corporation (Energy Corp);
 - NWN Gas Reserves LLC (NWN Gas Reserves);
- NW Natural Energy, LLC (NWN Energy);
 - NW Natural Gas Storage, LLC (NWN Gas Storage);
 - Gill Ranch Storage, LLC (Gill Ranch), which is presented as a discontinued operation;
- NNG Financial Corporation (NNG Financial);
 - KB Pipeline Company (KB);
- NW Natural Water Company, LLC (NWN Water);
 - Falls Water Co., Inc. (Falls Water);
 - Salmon Valley Water Company;
 - Cascadia Water, LLC (Cascadia);
 - NW Natural Water of Oregon, LLC (NWN Water of Oregon);
 - NW Natural Water of Washington, LLC (NWN Water of Washington);
 - NW Natural Water of Idaho, LLC (NWN Water of Idaho); and
 - Gem State Water Company, LLC (Gem State)

The NGD segment includes our NW Natural local gas distribution business, NWN Gas Reserves, which is a wholly-owned subsidiary of Energy Corp, and the NGD-portion of NW Natural's Mist storage facility in Oregon. Other activities aggregated and reported as other at NW Natural include the non-NGD storage activity at Mist as well as asset management services and the appliance retail center operations. Other activities aggregated and reported as other at NW Holdings include NWN Energy's equity investment in Trail West Holding, LLC (TWH), which is pursuing the development of a proposed natural gas pipeline through its wholly-owned subsidiary, Trail West Pipeline, LLC (TWP); NNG Financial's investment in Kelso-Beaver Pipeline (KB Pipeline); and NWN Water, which owns and continues to pursue investments in the water sector. See Note 4 for further discussion of our business segment and other, as well as our direct and indirect wholly-owned subsidiaries.

NON-GAAP FINANCIAL MEASURES. In addition to presenting the results of operations and earnings amounts in total, certain financial measures are expressed in cents per share or exclude the effects of certain items, which are non-GAAP financial measures. We present net income or loss and earnings or loss per share adjusted for certain items along with the U.S. GAAP measures to illustrate their magnitude on ongoing business and operational results. Although the excluded amounts are properly included in the determination of net income or loss and earnings or loss per share under U.S. GAAP, we believe the amount and nature of these items make period to period comparisons of operations difficult or potentially confusing. We use such non-GAAP financial measures to analyze our financial performance because we believe they provide useful information to our investors and creditors in evaluating our financial condition and results of operations. Our non-GAAP financial measures should not be considered a substitute for, or superior to, measures calculated in accordance with U.S. GAAP. Reconciliations of the non-GAAP financial measures to their closest U.S. GAAP measure used in subsequent sections of Item 7 are provided below.

NON-GAAP RECONCILIATIONS

NW HOLDINGS

<i>In millions, except per share data</i>	2018		2017		2016	
	Amount	Per Share	Amount	Per Share	Amount	Per Share
Net income from continuing operations	\$ 67.3	\$ 2.33	\$ 72.1	\$ 2.51	\$ 62.4	\$ 2.25
Adjustments:						
Regulatory environmental disallowance ⁽¹⁾	—	—	—	—	3.3	0.12
Tax effects of 2017 TCJA remeasurement ⁽²⁾	—	—	(3.4)	(0.12)	—	—
Tax effects of non-GAAP adjustment	—	—	—	—	(1.3)	(0.05)
Adjusted net income from continuing operations	\$ 67.3	\$ 2.33	\$ 68.7	\$ 2.39	\$ 64.4	\$ 2.32
NGD segment net income from continuing operations	\$ 57.5	\$ 1.99	\$ 60.5	\$ 2.10	\$ 54.6	\$ 1.96
Adjustments:						
Regulatory environmental disallowance ⁽¹⁾	—	—	—	—	3.3	0.12
Tax effects of 2017 TCJA remeasurement ⁽²⁾	—	—	1.0	0.03	—	—
Tax effects of non-GAAP adjustment	—	—	—	—	(1.3)	(0.05)
Adjusted NGD segment net income from continuing operations	\$ 57.5	\$ 1.99	\$ 61.5	\$ 2.13	\$ 56.6	\$ 2.03
Other net income from continuing operations	\$ 9.8	\$ 0.34	\$ 11.6	\$ 0.41	\$ 7.9	\$ 0.29
Adjustments:						
Tax effects of 2017 TCJA remeasurement ⁽²⁾	—	—	(4.4)	(0.15)	—	—
Adjusted other net income from continuing operations	\$ 9.8	\$ 0.34	\$ 7.2	\$ 0.26	\$ 7.9	\$ 0.29

NW NATURAL

<i>In millions</i>	2018		2017		2016	
	Amount	Amount	Amount	Amount	Amount	Amount
Net income from continuing operations	\$ 68.0	\$ 71.7	\$ 62.8			
Adjustments:						
Regulatory environmental disallowance ⁽¹⁾	—	—	3.3			
Tax effects of 2017 TCJA remeasurement ⁽²⁾	—	(3.0)	—			
Tax effects of non-GAAP adjustment	—	—	(1.3)			
Adjusted net income from continuing operations	\$ 68.0	\$ 68.7	\$ 64.8			
NGD segment net income from continuing operations	\$ 57.5	\$ 60.5	\$ 54.6			
Adjustments:						
Regulatory environmental disallowance ⁽¹⁾	—	—	3.3			
Tax effects of 2017 TCJA remeasurement ⁽²⁾	—	1.0	—			
Tax effects of non-GAAP adjustment	—	—	(1.3)			
Adjusted NGD segment net income from continuing operations	\$ 57.5	\$ 61.5	\$ 56.6			
Other net income from continuing operations	\$ 10.6	\$ 11.2	\$ 8.3			
Adjustments:						
Tax effects of 2017 TCJA remeasurement ⁽²⁾	—	(4.0)	—			
Adjusted other net income from continuing operations	\$ 10.6	\$ 7.2	\$ 8.3			

Note: Totals may not foot due to rounding.

⁽¹⁾ Regulatory environmental disallowance of \$3.3 million in 2016 includes \$2.8 million recorded in NGD other income (expense), net and \$0.5 million recorded in NGD operations and maintenance expense. The tax effect of the adjustment is calculated using the combined federal and state statutory rate in effect at the time of 39.5%. NW Holdings' EPS amounts for the 2016 adjustment are calculated using diluted shares of 27.8 million, as shown on the NW Holdings Consolidated Statements of Comprehensive Income.

⁽²⁾ Non-cash TCJA benefit (expense) associated with continuing operations of \$3.4 million was recorded in income tax expense (benefit) in the fourth quarter of 2017 as a result of the federal tax rate changing from 35% to 21% effective December 22, 2017. The majority of this benefit was recorded at NW Natural. NW Holdings EPS amounts are calculated using diluted shares of 28.8 million as shown on the NW Holdings Consolidated Statements of Comprehensive Income. The TCJA impacts in the NGD segment and other may not correlate exactly to the consolidated amount due to rounding. See Note 10 for additional information on the TCJA.

EXECUTIVE SUMMARY

We manage our business and strategic initiatives with a long-term view of providing service safely and reliably to our customers, working with regulators on key policy initiatives, and remaining focused on growing our businesses. See "2019 Outlook" below for more information. Highlights for the year include:

- added over 12,500 natural gas customers in 2018 for an annual growth rate of 1.7% at December 31, 2018;
- invested \$215 million in NGD distribution systems and facilities for growth and reliability;
- completed key components of the North Mist Gas Storage Expansion Project and continue to target an in-service date during the spring of 2019;

- NW Natural ranked first in the West in the 2018 J.D. Power Gas Utility Residential Customer Satisfaction Study and Gas Utility Business Customer Satisfaction Study;
- completed key aspects of NW Natural's Oregon general rate case and filed for a general rate increase in Washington for the first time in a decade;
- completed four water distribution acquisitions with several more pending, the largest of which is a water and wastewater business in Sunriver, Oregon. Once pending transactions close, our water business is expected to serve 18,000 connections; and
- delivered increasing dividends for the 63rd consecutive year to shareholders.

Key financial highlights for NW Holdings include:

<i>In millions, except per share data</i>	2018		2017		2016	
	Amount	Per Share	Amount	Per Share	Amount	Per Share
Net income from continuing operations	\$ 67.3	\$ 2.33	\$ 72.1	\$ 2.51	\$ 62.4	\$ 2.25
Loss from discontinued operations, net of tax	(2.7)	(0.09)	(127.7)	(4.44)	(3.5)	(0.13)
Consolidated net income (loss)	\$ 64.6	\$ 2.24	\$ (55.6)	\$ (1.93)	\$ 58.9	\$ 2.12
Adjusted net income from continuing operations ⁽¹⁾	\$ 67.3	\$ 2.33	\$ 68.7	\$ 2.39	\$ 64.4	\$ 2.32
Natural gas distribution margin	\$ 383.7		\$ 392.6		\$ 376.6	

Key financial highlights for NW Natural include:

<i>In millions, except per share data</i>	2018		2017		2016	
	Amount	Amount	Amount	Amount	Amount	Amount
Net income from continuing operations	\$ 68.0	\$ 71.7	\$ 62.8			
Loss from discontinued operations, net of tax	(1.7)	(127.3)	(3.9)			
Consolidated net income (loss)	\$ 66.3	\$ (55.6)	\$ 58.9			
Adjusted net income from continuing operations ⁽¹⁾	\$ 68.0	\$ 68.7	\$ 64.8			

⁽¹⁾ See the Non-GAAP Reconciliations table at the beginning of Item 7 for a reconciliation of this non-GAAP financial measure to its closest U.S. GAAP measure.

2018 COMPARED TO 2017. NW Holdings' and NW Natural's net income from continuing operations were \$67.3 million and \$68.0 million, respectively, in 2018 compared to \$72.1 million and \$71.7 million, respectively, in 2017. The decrease was primarily due to the benefit associated with the TCJA deferred income tax remeasurement in 2017.

Excluding the benefit in 2017 associated with the TCJA remeasurement, NW Holdings adjusted net income from continuing operations decreased \$1.4 million. See the Non-GAAP reconciliations at the beginning of Item 7 for additional information. The decrease was primarily due to the following factors, all of which were driven by activity at NW Natural:

- an \$8.9 million decrease in NGD segment margin primarily due to the deferral of excess revenue associated with the federal income tax rate decrease as a result of the TCJA;
- a \$4.3 million increase in operations and maintenance expense driven by general payroll and benefits

increases as well as increases in professional services and contract labor;

- a \$4.1 million increase in depreciation and amortization primarily due to additional capital expenditures; and
- a \$3.3 million decrease in other income (expense), net primarily due to an increase in pension and postretirement benefit expense, partially offset by an increase in the equity portion of AFUDC; partially offset by
- a \$20.2 million decrease in income tax expense due to the decrease in the federal income tax rate as a result of the TCJA and lower pretax earnings.

2017 COMPARED TO 2016. NW Holdings' and NW Natural's net income from continuing operations were \$72.1 million and \$71.7 million, respectively, in 2017 compared to \$62.4 million and \$62.8 million, respectively, in 2016. The increase included a \$3.4 million benefit due to the deferred income tax balance remeasurement associated with the TCJA in 2017 and a \$3.3 million pre-tax regulatory environmental disallowance in 2016.

Excluding the impact of these items, NW Holdings adjusted net income from continuing operations increased \$4.3 million. See the Non-GAAP reconciliations at the beginning of Item 7 for additional information. The increase was primarily due to the following factors, all of which were driven by activity at NW Natural:

- a \$16.0 million increase in NGD segment margin primarily due to customer growth and effects of colder than average weather in 2017 compared to warmer than average weather in 2016; and
- a \$6.9 million increase in other income (expense), net primarily due an increase in the equity portion of AFUDC; partially offset by
- a \$15.7 million increase in operations and maintenance expense driven by higher NGD segment payroll and benefits increases, as well as increased NGD segment safety equipment upgrade costs; and
- a \$1.0 million decrease in revenues from asset management agreements for Mist storage and transportation capacity.

2019 OUTLOOK

Our 2019 goals leverage our resources and history of innovation to continue meeting the evolving needs of customers, regulators, and shareholders. Our near-term outlook is centered on the following long-term strategic objectives:

Delivering Our Products

- Ensure Safe and Reliable Service
- Provide a Superior Customer Experience
- Advance Constructive Legislative Policies and Regulation

SAFETY AND RELIABILITY. Delivering our products safely and reliably to customers is our first priority. During 2019, NW Natural will maintain its vigilant focus on safety and emergency response through hands-on scenario-based training for employees, third-party contractors, and local authorities. To ensure the reliability, resiliency, and safety of NW Natural's infrastructure, we intend to continue to invest in the maintenance and necessary upgrades of our pipeline system, including completing projects to replace end-of-life equipment at our Mist storage facility, renovating several resource centers, and supporting growth and reliability in Oregon and southwest Washington. Safety also includes NW Holdings' and NW Natural's vigilance in maintaining and seeking to strengthen cybersecurity defenses and preparing for large-scale emergency events, such as seismic hazards.

SUPERIOR CUSTOMER EXPERIENCE. NW Natural has a legacy of providing excellent customer service and a long-standing dedication to continuous improvement, which has resulted in consistently high rankings in the J.D. Power and Associates customer satisfaction studies. In 2019, we will strive to enhance our customers' experience to meet their evolving expectations by prioritizing improvements to technology and internal processes which supports our customers' frequent interactions and highest value touchpoints.

POLICIES AND REGULATION. We remain committed to working constructively with policymakers and regulators to provide the best outcomes for both our customers and stakeholders. At NW Natural, we are working closely with the Oregon commission and other stakeholders on several significant items, including the best way to return benefits from the TCJA to NW Natural customers and complete its Oregon general rate case, which we filed in December 2017. With regard to Washington regulation, NW Natural filed a general rate case with Washington in December 2018 and will seek to work productively with parties in an effort to conclude that case in 2019. NW Natural will continue working with the EPA and other stakeholders on an environmentally protective and cost effective clean-up for the Portland Harbor Superfund Site. Finally, we are engaged in policy discussions both in Oregon and Washington at the state and community level to build support for a constructive role for natural gas in a low-carbon future.

Grow Our Businesses

- Enable NW Natural Growth
- Lead in a Low-Carbon Future
- Integrate and Grow our Water Businesses

NW NATURAL GROWTH. Natural gas is the preferred energy choice in NW Natural's service territory given its efficient, affordable, and reliable qualities. We are focused on leveraging these key attributes to capitalize on our region's strong economic growth. We continue to grow our market share in the single-family residential sector and capture new commercial customers as well as multifamily or mixed-use developments. In addition, one of the largest and most innovative capital projects in the history of NW Natural, the North Mist Gas Storage Expansion, is expected to be completed and begin supporting the integration of renewables into the electric grid in 2019. We will continue to look for opportunities to serve and grow with our communities.

LOW-CARBON PATHWAY. We are deeply committed to a clean energy future. It's why NW Natural launched a low-carbon initiative to reduce emissions in the customers and communities NW Natural serves by leveraging modern pipeline systems in new ways, working closely with customers, policymakers and regulators, and embracing cutting-edge technology. NW Natural partnered with the City of Portland to bring renewable natural gas (RNG) onto its system. We expect the entire project to be operational in 2019 with several other RNG projects underway for completion this year or in 2020. To further understand the role of natural gas in a low-carbon future, NW Natural engaged a premier environmental consultant to complete a deep decarbonization study. The study outlines how natural gas can help achieve crucial emission reductions of 80% by 2050. We will continue helping our customers reduce and offset their consumption as we support the development of renewable natural gas supply and explore other cutting edge solutions to lower the carbon intensity of natural gas, such as power to gas.

INTEGRATE AND GROW WATER. NW Water began its expansion into the water business more than a year ago with a focus on water sector investments that fit our conservative risk profile and core competencies. In 2019 we plan to close our largest acquisition to date in Sunriver, Oregon that serves approximately 9,400 water and wastewater connections. Once all outstanding transactions are closed, NW Water will serve 18,000 connections and have invested nearly \$70 million in the water sector.

DIVIDENDS

NW Holdings dividend highlights include:

<i>Per common share</i>	2018	2017	2016
Dividends paid	\$ 1.8925	\$ 1.8825	\$ 1.8725

In January 2019, the NW Holdings' Board of Directors declared a quarterly dividend on NW Holdings common stock of \$0.4750 per share, payable on February 15, 2019, to shareholders of record on January 31, 2019, reflecting an indicated annual dividend rate of \$1.90 per share.

See "Financial Condition - *Liquidity and Capital Resources*" for more information regarding the NW Holdings and NW Natural dividend policies and regulatory conditions on NW Natural dividends to its parent, NW Holdings.

RESULTS OF OPERATIONS

Regulatory Matters

Regulation and Rates

NATURAL GAS DISTRIBUTION. NW Natural's natural gas distribution business is subject to regulation by the OPUC and WUTC with respect to, among other matters, rates and terms of service, systems of accounts, and issuances of securities by NW Natural. In 2018, approximately 89% of NGD customers were located in Oregon, with the remaining 11% in Washington. Earnings and cash flows from natural gas distribution operations are largely determined by rates set in general rate cases and other proceedings in Oregon and Washington. They are also affected by weather, the local economies in Oregon and Washington, the pace of customer growth in the residential, commercial, and industrial markets, and NW Natural's ability to remain price competitive, control expenses, and obtain reasonable and timely regulatory recovery of its natural gas distribution-related costs, including operating expenses and investment costs in plant and other regulatory assets. See "*Most Recent General Rate Cases*" below.

MIST INTERSTATE GAS STORAGE. NW Natural's interstate storage activity at Mist is subject to regulation by the OPUC, WUTC, and FERC with respect to, among other matters, rates and terms of service. The OPUC also regulates the intrastate storage services at Mist, while FERC regulates the interstate storage services at Mist. The FERC uses a maximum cost of service model which allows for gas storage prices to be set at or below the cost of service as approved by each agency in their last regulatory filing. The OPUC Schedule 80 rates are tied to the FERC rates, and are updated whenever NW Natural modifies FERC maximum rates.

OTHER. In June 2018, NWN Gas Storage entered into a Purchase and Sale Agreement for the sale of all of its ownership interests in Gill Ranch, a natural gas storage facility located near Fresno, California, which is subject to approval by the CPUC and other customary closing conditions. See Note 18 for more information.

Most Recent General Rate Cases

OREGON. Effective November 1, 2012, through October 31, 2018, the OPUC authorized rates to customers based on an ROE of 9.5%, an overall rate of return of 7.78%, and a capital structure of 50% common equity and 50% long-term debt.

Effective November 1, 2018, the OPUC authorized rates to customers based on an ROE of 9.4%, an overall rate of return of 7.317%, and a capital structure of 50% common equity and 50% long-term debt. For additional information, see "*Regulatory Proceeding Updates*" below.

WASHINGTON. Effective January 1, 2009, the WUTC authorized rates to customers based on an ROE of 10.1% and an overall rate of return of 8.4% with a capital structure of 51% common equity, 5% short-term debt, and 44% long-term debt.

On December 31, 2018, NW Natural filed a general rate case in Washington requesting an ROE of 10.3%, an overall rate of return of 7.63%, and a capital structure of 49.5% common equity, 49.5% long-term debt, and 1% short-term debt. For additional information, see "*Regulatory Proceeding Updates*" below.

FERC. NW Natural is required under its Mist interstate storage certificate authority and rate approval orders to file every five years either a petition for rate approval or a cost and revenue study to change or justify maintaining the existing rates for its interstate storage services. In January 2018, various state parties filed a request with the FERC to adjust the revenue requirements of public utilities to reflect the recent reduction in the federal corporate income tax rate and other impacts resulting from the TCJA. In July 2018, the FERC issued an order finalizing its regulations regarding the effect of the TCJA. The new regulations required NW Natural to file a petition for rate approval or a cost and revenue study to reflect the new federal corporate income tax rate within thirty days of the rate effective date of NW Natural's Oregon rate case. On October 12, 2018, NW Natural filed a rate petition with FERC for revised maximum cost-based rates, which incorporated the new federal corporate income tax rate. The revised rates became effective November 1, 2018.

NW Natural continuously evaluates the need for rate cases in its jurisdictions. For additional information, see "*Regulatory Proceeding Updates—Rate Case*" below.

Regulatory Proceeding Updates

During 2018, NW Natural was involved in the regulatory activities discussed below.

INTERSTATE STORAGE AND OPTIMIZATION SHARING. NW Natural received an Order from the OPUC in March 2015 on their review of the current revenue sharing arrangement that allocates a portion of the net revenues generated from non-NGD Mist storage services and third-party asset management services to NGD business customers. The Order required a third-party cost study to be performed. In 2017, a third-party consultant completed a cost study and their final report was filed with the OPUC in February 2018. The OPUC concluded on this matter in the Oregon general rate case proceeding. For additional information, see "*Oregon General Rate Case*" below.

HOLDING COMPANY REORGANIZATION. In February 2017, NW Natural filed applications with the OPUC, WUTC, and CPUC for approval to reorganize under a holding company structure. In 2017, the OPUC and WUTC approved NW Natural's applications subject to certain restrictions or "ring-fencing" provisions applicable to NW Natural, the company that currently engages, and would continue to engage, in NGD business operations. During the second quarter of 2018, NW Natural received approval to reorganize into a holding company structure from the CPUC. On October 1, 2018, we completed the reorganization to a holding company structure. Effective November 1, 2018 there are a number of conditions under the agreement with the OPUC and the WUTC related to the formation of a holding company structure. One of the conditions is that, for three years, NW Natural will be required to provide an annual \$500,000 credit to Oregon customers and a \$55,000 credit

to Washington customers. The first-year credit to both Oregon and Washington customers was given in conjunction with the PGA filings, with the rate adjustments commencing on November 1, 2018.

TAX REFORM DEFERRAL. In December 2017, NW Natural filed applications with the OPUC and WUTC to defer the overall net benefit associated with the TCJA that was enacted on December 22, 2017. Through the Oregon general rate case, in October 2018 the OPUC issued an order directing NW Natural and the other parties to the rate case to engage in further regulatory proceedings to resolve open issues with respect to the treatment of the 10-month deferral period of benefits associated with the TCJA. On February 4, 2019, NW Natural and the other parties to the rate case agreed upon terms by which the deferred benefits would be returned to customers via a joint stipulation filed with the OPUC. For it to be effective, the OPUC must issue an Order. See "Regulatory Proceeding Updates-Oregon General Rate Case" below for more information.

NW Natural expects to work with the WUTC regarding the Washington deferral for the TCJA as part of the general rate case filed in Washington on December 31, 2018, and is currently deferring all amounts for the benefit of Washington customers.

WATER BUSINESS. Since we initiated our water strategy in December 2017, we have entered into the following agreements which require or required regulator approval:

- **Salmon Valley Water Company** — We received regulatory approval for this Welches, Oregon acquisition in September 2018, and the transaction closed in November 2018.
- **Falls Water Company** — We received regulatory approval for this Idaho Falls, Idaho acquisition in July 2018 from the IPUC and closed the transaction in September 2018.
- **Lehman Enterprises, Inc. and Sea View Water LLC** — We received regulatory approval from the WUTC for these Whidbey Island, Washington acquisitions in October 2018 and closed the transaction in November 2018.
- **Sunriver Water, LLC and Sunriver Environmental, LLC** — We filed an application for regulatory approval from the OPUC for the Sunriver Water, LLC acquisition in October 2018 and anticipate receiving regulatory approval in 2019. Sunriver Environmental, LLC is not under the OPUC's jurisdiction. The transaction is expected to close in the first half of 2019.
- **Spirit Lake East Water Company and Lynnwood Water** - We filed an application for regulatory approval from the IPUC for these Coeur d'Alene, Idaho acquisitions in February 2019.
- **Estates Water Systems Inc. and Monterra Inc** - We filed an application for regulatory approval from the WUTC for these Sequim, Washington acquisitions in February 2019.

The acquisitions described above are expected to, upon the closing of the Sunriver transaction, represent approximately \$70 million of aggregate investment.

OREGON GENERAL RATE CASE. On October 26, 2018, the OPUC issued an order regarding NW Natural's general rate case originally filed in December 2017 and approved the following items:

- Annual revenue requirement increase of \$23.4 million or 3.72% over NW Natural's revenue from existing rates, which includes approximately \$12.1 million that would otherwise be recovered under the conservation tariff deferral;
- Capital structure of 50% debt and 50% equity;
- Return on equity of 9.4%;
- Cost of capital of 7.317%;
- Rate base of \$1.186 billion, or an increase of \$300 million since the last rate case in 2012;
- Commencing November 1, 2018, ASC 715 pension expenses for the qualified pension plan will be recovered through rates with an increase of \$8.1 million to revenue requirement for a total of \$11.9 million; and
- The sharing of asset management revenues related to NGD business pipeline and storage assets will be 90%/10% with 90% being credited to customers. Previously customers received 67% of these revenues.

The rate changes listed above went into effect on November 1, 2018.

In addition to the items above, the OPUC issued an order on October 26, 2018, to freeze NW Natural's pension balancing account as of October 31, 2018. The order directed NW Natural and the other parties to the rate case to engage in further regulatory proceedings extending the general rate case docket to resolve open issues with respect to the recovery of the pension balancing account, and treatment of the 10-month deferral period benefits associated with the TCJA. On February 4, 2019, NW Natural, OPUC Staff, Oregon Citizen's Utility Board (CUB), and the Alliance of Western Energy Customers (AWEC), which comprise all of the parties to the 2018 Oregon rate case, filed with the OPUC a joint stipulation addressing remaining items related to NW Natural's pension balancing account and the return of deferred TCJA benefits to customers (Settlement). The Settlement is subject to the review and approval of the OPUC. For it to be effective, the OPUC must issue an Order, which may approve or deny the terms of the Settlement or be issued under the OPUC's own terms.

Under the Settlement, the stipulating parties agree that NW Natural properly recorded the remeasurement of regulated NGD excess deferred income taxes pursuant to the effects of the TCJA, and agree that all of NW Natural's TCJA-related dockets will be resolved in accordance with the terms of the Settlement. Under the Settlement, NW Natural would return excess deferred income taxes pursuant to the TCJA as follows: (i) an annual credit to base rates of \$3.4 million; (ii) a credit of \$3.0 million per year for five years to sale customers; (iii) a credit to customers' benefit of \$5.44 million of deferred income taxes, and \$7.07 million of TCJA benefits deferred between January 1, 2018 and October 31, 2018, reflected as a reduction to NW Natural's pension balancing account, described below. As a result of these returns and credits, NW Natural's rate base is expected to increase by approximately \$15.38 million, and the revenue requirement is expected to increase approximately \$1.43

million. If NW Natural files a general rate case within five years of the date of the Order implementing the Settlement, this revenue requirement may be adjusted as part of that general rate case.

As to the future operation and timing of rate recovery of amounts reflected in NW Natural's pension balancing account, under the Settlement, the stipulating parties agree that, effective October 31, 2018, NW Natural would: (i) reduce the amount of the frozen pension balancing account by \$10.5 million, and apply \$12.51 million of the Company's deferred TCJA benefits, for a total reduction of the pension balancing account of approximately \$23.01 million; and (ii) reduce the interest rate on the pension balancing account from NW Natural's authorized rate of return of 7.317 percent to 4.3 percent. NW Natural would then collect the remainder of the pension balancing account balance over ten years in a customer tariff of \$7.3 million per year beginning on the rate effective date. If the Settlement is approved, NW Natural expects to recognize an after-tax charge to earnings of approximately \$6.7 million in the quarter in which an order is issued.

The Settlement is subject to the review and approval of the OPUC with a decision and order expected in March 2019, and new rates expected to be effective April 1, 2019.

WASHINGTON GENERAL RATE CASE. On December 31, 2018, NW Natural filed for a general rate case in the state of Washington. The requested increase, the first in approximately 10 years, is intended to recover operating costs and investments made in the Washington distribution system and is based upon the following assumptions or requests:

- Capital structure of 49.5% long-term debt, 1.0% short-term debt, and 49.5% common equity;
- Return on equity of 10.3%;
- Cost of capital of 7.63%; and
- Rate base of \$186.5 million, an increase of \$58.7 million since the last rate case.

The filing also includes a proposal to return federal tax reform benefits to customers related to the TCJA. NW Natural estimates the total liability for tax reform benefits allocated to Washington customers to be approximately \$20.2 million, which is comprised of a historical deferred liability of \$18.1 million primarily related to property, plant, and equipment and an expected \$2.1 million associated with interim tax benefits accumulated from January 1, 2018 to November 30, 2019. NW Natural is requesting that the \$18.1 million historical deferral be credited to rates in compliance with the TCJA guidance, which is currently at a rate of approximately \$0.5 million annually for the first five years, and which would be reviewed and adjusted in year five for the next five years. NW Natural is requesting that the interim \$2.1 million tax benefit be returned to customers over two years.

In addition, NW Natural is requesting a decoupling tariff for Washington customers, which is intended to allow the NGD business to continue encouraging customers to conserve energy without adversely affecting earnings due to reductions in sales volumes. The proposed decoupling tariff would also adjust for any deviation from normal usage, including weather.

Finally, NW Natural is requesting that the WUTC review costs allocable to Washington related to environmental remediation expenses and consider a mechanism for recovery of these costs. The requested costs are estimated to be approximately 3.32% of total costs associated with those sites related to serving Washington customers.

NW Natural's filing will be reviewed by the WUTC and other stakeholders. The process is anticipated to take up to 11 months. NW Natural has requested that the new rates take effect December 1, 2019.

INTEGRATED RESOURCE PLAN (IRP). NW Natural files a full IRP biennially for Oregon and Washington with the OPUC and WUTC, respectively. NW Natural filed its 2018 Oregon and Washington IRPs in August 2018, and received both a letter of compliance from the WUTC and acknowledgment by the OPUC in February 2019. The IRPs included analysis of different growth scenarios and corresponding resource acquisition strategies. This analysis is needed to develop supply and demand resource requirements, consider uncertainties in the planning process, and to establish a plan for providing reliable and low cost natural gas service.

DEPRECIATION STUDY. Under OPUC regulations, NW Natural is required to file a depreciation study every five years to update or justify maintaining the existing depreciation rates. In December 2016, NW Natural filed the required depreciation study with the OPUC. In September 2017, the parties to the docket filed a settlement with the Commission requesting approval of updated depreciation rates. In January 2018, OPUC issued an order adopting the stipulation. A corresponding docket was filed and approved in Washington for the same depreciation rates. FERC also adopted the new depreciation rates which were included in the rate petition described in *Regulation and Rates - FERC* above. The new depreciation rates were effective and implemented as of November 1, 2018 for Oregon, Washington, and FERC regulated customers. The new depreciation rates did not materially change NW Natural's depreciation rates and did not have a material impact to financial results.

Rate Mechanisms

During 2018, NW Natural's approved rates and recovery mechanisms for each service area included:

	OR		WA
	2012 Rate Case	2018 Rate Case (effective 11/1/2018)	2009 Rate Case
Authorized Rate Structure:			
ROE	9.5%	9.4%	10.1%
ROR	7.8%	7.3%	8.4%
Debt/Equity Ratio	50%/50%	50%/50%	49%/51%
Key Regulatory Mechanisms:			
PGA	X	X	X
Gas Cost Incentive Sharing	X	X	
Decoupling	X	X	
WARM	X	X	
Environmental Cost Deferral	X	X	X
Environmental Cost Recovery (SRRM)	X	X	
Pension Balancing	X		
Interstate Storage and Asset Management Sharing	X	X	X

PURCHASED GAS ADJUSTMENT. Rate changes are established for NW Natural each year under PGA mechanisms in Oregon and Washington to reflect changes in the expected cost of natural gas commodity purchases. The PGA filings and filings coincident with the PGA include gas costs under spot purchases as well as contract supplies, gas costs hedged with financial derivatives, gas costs from the withdrawal of storage inventories, the production of gas reserves, interstate pipeline demand costs, temporary rate adjustments, which amortize balances of deferred regulatory accounts, and the removal of temporary rate adjustments effective for the previous year.

Each year, NW Natural typically hedges gas prices on a portion of NW Natural's annual sales requirement based on normal weather, including both physical and financial hedges. NW Natural entered the 2018-19 gas year with its forecasted sales volumes hedged at 49% in financial swap and option contracts and 26% in physical gas supplies for Oregon and Washington.

As of December 31, 2018, NW Natural is also hedged in future gas years at approximately 17% for the 2019-20 gas year and between 1% and 8% for annual requirements over the subsequent five gas years. Hedge levels are subject to change based on actual load volumes, which depend to a certain extent on weather, economic conditions, and estimated gas reserve production. Also, gas storage inventory levels may increase or decrease with storage expansion, changes in storage contracts with third parties, variations in the heat content of the gas, and/or storage recall by NW Natural.

In September 2018, NW Natural filed its annual PGA and received OPUC and WUTC approval in October 2018. PGA rate changes were effective November 1, 2018. Rates between states can vary due to different rate structures and mechanisms. Oregon residential customers' rates declined 2.1% from the combined effect of the PGA and Oregon rate case and Washington residential customers' rates declined by 7.2%. In addition, as required with the Washington PGA filing, NW Natural provided the WUTC with a full strategy implementation plan to incorporate risk-responsive hedging strategies in its natural gas procurement process. The plan calls for a flexible hedging approach that reacts to changes in market conditions as those changes occur. NW Natural expects to begin implementing risk-responsive hedging strategies for the 2019-20 PGA for its Washington gas supplies.

Under the current PGA mechanism in Oregon, there is an incentive sharing provision whereby NW Natural is required to select each year an 80% deferral or a 90% deferral of higher or lower actual gas costs compared to estimated PGA prices, such that the impact on NW Natural's current earnings from the incentive sharing is either 20% or 10% of the difference between actual and estimated gas costs, respectively. For the 2017-18 and 2018-19 gas years, NW Natural selected the 90% deferral option. Under the Washington PGA mechanism, NW Natural defers 100% of the higher or lower actual gas costs, and those gas cost differences are passed on to customers through the annual PGA rate adjustment.

EARNINGS TEST REVIEW. NW Natural is subject to an annual earnings review in Oregon to determine if the NGD business is earning above its authorized ROE threshold. If NGD business earnings exceed a specific ROE level, then 33% of the amount above that level is required to be deferred or refunded to customers. Under this provision, if NW Natural selects the 80% deferral gas cost option, then NW Natural retains all earnings up to 150 basis points above the currently authorized ROE. If NW Natural selects the 90% deferral option, then it retains all earnings up to 100 basis points above the currently authorized ROE. For the 2017-18 and 2018-19 gas years, it selected the 90% deferral option. The ROE threshold is subject to adjustment annually based on movements in long-term interest rates. For calendar years 2016, 2017, and 2018, the ROE threshold was 11.06%, 10.66%, and 10.48%, respectively. There were no refunds required for 2016 and 2017. NW Natural does not expect a refund for 2018 based on results, and NW Natural anticipates filing its 2018 earnings test in May 2019.

GAS RESERVES. In 2011, the OPUC approved the Encana gas reserves transaction to provide long-term gas price protection for NGD business customers and determined costs under the agreement would be recovered on an ongoing basis through the annual PGA mechanism. Gas produced from NW Natural's interests is sold at then prevailing market prices, and revenues from such sales, net of associated operating and production costs and amortization, are included in cost of gas. The cost of gas, including a carrying cost for the rate base investment made under the original agreement, is included in NW Natural's annual Oregon PGA filing, which allows NW Natural to recover these costs through customer rates.

The net investment under the original agreement earns a rate of return.

In 2014, NW Natural amended the original gas reserves agreement in response to Encana's sale of its interest in the Jonah field located in Wyoming to Jonah Energy. Under the amended agreement with Jonah Energy, NW Natural has the option to invest in additional wells on a well-by-well basis with drilling costs and resulting gas volumes shared at the amended proportionate working interest for each well in which NW Natural invests. Volumes produced from the additional wells drilled after the amended agreement are included in NW Natural's Oregon PGA at a fixed rate of \$0.4725 per therm. NW Natural did not have the opportunity to participate in additional wells in 2016, 2017, or 2018.

DECOUPLING. In Oregon, NW Natural has a decoupling mechanism. Decoupling is intended to break the link between earnings and the quantity of gas consumed by customers, removing any financial incentive to discourage customers' efforts to conserve energy.

The Oregon decoupling mechanism was reauthorized and the baseline expected usage per customer was reset in the 2018 Oregon general rate case. This mechanism employs a use-per-customer decoupling calculation, which adjusts margin revenues to account for the difference between actual and expected customer volumes. The margin adjustment resulting from differences between actual and expected volumes under the decoupling component is recorded to a deferral account, which is included in the annual PGA filing. In Washington, customer use is not covered by such a tariff. However, NW Natural's general rate case filed in Washington on December 31, 2018, requests that such a tariff be implemented. See "Regulatory Proceeding Updates—*Washington General Rate Case*" above.

WARM. In Oregon, NW Natural has an approved weather normalization mechanism, which is applied to residential and commercial customer bills. This mechanism is designed to help stabilize the collection of fixed costs by adjusting residential and commercial customer billings based on temperature variances from average weather, with rate decreases when the weather is colder than average and rate increases when the weather is warmer than average. The mechanism is applied to bills from December through mid-May of each heating season. The mechanism adjusts the margin component of customers' rates to reflect average weather, which uses the 25-year average temperature for each day of the billing period. Daily average temperatures and 25-year average temperatures are based on a set point temperature of 59 degrees Fahrenheit for residential customers and 58 degrees Fahrenheit for commercial customers. The collections of any unbilled WARM amounts due to tariff caps and floors are deferred and earn a carrying charge until collected, or returned, in the PGA the following year. This weather normalization mechanism was reauthorized in the 2012 Oregon general rate case without an expiration date. Residential and commercial customers in Oregon are allowed to opt out of the weather normalization mechanism, and as of December 31, 2018, 8% of eligible customers had opted out. NW Natural does not have a weather normalization mechanism approved for residential and commercial customers in Washington, which account

for about 11% of total customers. See "Business Segments—*Natural Gas Distribution*" below.

INDUSTRIAL TARIFFS. The OPUC and WUTC have approved tariffs covering NGD service to major industrial customers, which are intended to give NW Natural certainty in the level of gas supplies needed to serve this customer group. The approved terms include, among other things, an annual election period, special pricing provisions for out-of-cycle changes, and a requirement that industrial customers complete the term of their service election under NW Natural's annual PGA tariff.

ENVIRONMENTAL COST DEFERRAL AND SRRM. NW Natural has a SRRM through which it tracks and has the ability to recover past deferred and future prudently incurred environmental remediation costs allocable to Oregon, subject to an earnings test.

Under the SRRM collection process, there are three types of deferred environmental remediation expense:

- Pre-review - This class of costs represents remediation spend that has not yet been deemed prudent by the OPUC. Carrying costs on these remediation expenses are recorded at NW Natural's authorized cost of capital. NW Natural anticipates the prudence review for annual costs and approval of the earnings test prescribed by the OPUC to occur by the third quarter of the following year.
- Post-review - This class of costs represents remediation spend that has been deemed prudent and allowed after applying the earnings test, but is not yet included in amortization. NW Natural earns a carrying cost on these amounts at a rate equal to the five-year treasury rate plus 100 basis points.
- Amortization - This class of costs represents amounts included in current customer rates for collection and is generally calculated as one-fifth of the post-review deferred balance. NW Natural earns a carrying cost equal to the amortization rate determined annually by the OPUC, which approximates a short-term borrowing rate. NW Natural included \$6.1 million and \$7.4 million of deferred remediation expense approved by the OPUC for collection during the 2018-19 and 2017-18 PGA years, respectively.

In addition, the SRRM also provides for the annual collection of \$5.0 million from Oregon customers through a tariff rider. As it collects amounts from customers, NW Natural recognizes these collections as revenue and separately amortizes an equal and offsetting amount of the deferred regulatory asset balance through the environmental remediation operating expense line shown separately in the operating expenses section of the Consolidated Statements of Comprehensive Income (Loss). See Note 17 for more information on our environmental matters.

The SRRM earnings test is an annual review of adjusted NGD ROE compared to authorized NGD ROE. For 2018, the first ten months will be weighted at 9.5% and the last two months at 9.4%, reflecting the ROE change from NW Natural's most recent rate case effective November 1, 2018.

To apply the earnings test NW Natural must first determine what if any costs are subject to the test through the following calculation:

Annual spend
Less: \$5.0 million base rate rider
Prior year carry-over ⁽¹⁾
\$5.0 million insurance + interest on insurance
<hr/>
Total deferred annual spend subject to earnings test
Less: over-earnings adjustment, if any
Add: deferred interest on annual spend ⁽²⁾
<hr/>
Total amount transferred to post-review

⁽¹⁾ Prior year carry-over results when the prior year amount transferred to post-review is negative. The negative amount is carried over to offset annual spend in the following year.

⁽²⁾ Deferred interest is added to annual spend to the extent the spend is recoverable.

To the extent the NGD business earns at or below its authorized ROE, the total amount transferred to post-review is recoverable through the SRRM. To the extent more than authorized ROE is earned in a year, the amount transferred to post-review would be reduced by those earnings that exceed its authorized ROE.

For 2018, NW Natural has performed this test, which is anticipated to be submitted to the OPUC in May 2019, and no earnings test adjustment is expected for 2018.

The WUTC has also previously authorized the deferral of environmental costs, if any, that are appropriately allocated to Washington customers. This Order was effective in January 2011 with cost recovery and carrying charges on amounts deferred for costs associated with services provided to Washington customers to be determined in a future proceeding. Annually, or more often if circumstances warrant, NW Natural reviews all regulatory assets for recoverability. If NW Natural should determine all or a portion of these regulatory assets no longer meet the criteria for continued application of regulatory accounting, then NW Natural would be required to write-off the net unrecoverable balances against earnings in the period such a determination was made.

PENSION COST DEFERRAL AND PENSION BALANCING ACCOUNT. From 2011 through October 2018, the OPUC authorized a regulatory mechanism in which NW Natural deferred annual pension expenses above the amount set in rates, with recovery of these deferred amounts through the implementation of a balancing account, which included the expectation of higher and lower pension expenses in future years. During this period the mechanism permitted for NW Natural to accrue interest on the account balance at the NGD business' authorized rate of return. On October 26, 2018, the OPUC issued an order to freeze NW Natural's pension balancing account as of October 31, 2018. The order directed NW Natural and the other parties to the 2018 Oregon rate case to engage in further regulatory proceedings extending the general rate case docket to resolve open issues with respect to the recovery of the pension balancing account. On February 4, 2019, NW Natural and the other parties to the rate case filed a joint stipulation with the OPUC outlining a resolution to the issue.

See "Regulatory Proceeding Updates-Oregon General Rate Case" above. Pension expense deferrals, excluding interest, were \$10.3 million, \$6.5 million, and \$6.3 million in 2018, 2017 and 2016, respectively.

INTERSTATE STORAGE AND OPTIMIZATION SHARING. On an annual basis, NW Natural credits amounts to Oregon and Washington customers as part of a regulatory incentive sharing mechanism related to net revenues earned from Mist gas storage and asset management activities. Generally, amounts are credited to Oregon customers in June, while credits are given to customers in Washington as reductions in rates through the annual PGA filing in November.

The following table presents the credits to NGD customers:

<i>In millions</i>	2018	2017	2016
Oregon	\$ 11.7	\$ 11.7	\$ 9.4
Washington	1.0	1.0	1.0

Business Segment - Natural Gas Distribution (NGD)

NGD margin results are primarily affected by customer growth, revenues from rate-base additions, and, to a certain extent, by changes in delivered volumes due to weather and customers' gas usage patterns because a significant portion of NGD margin is derived from natural gas sales to residential and commercial customers. In Oregon, NW Natural has a conservation tariff (also called the decoupling mechanism), which adjusts margin up or down each month through a deferred regulatory accounting adjustment designed to offset changes resulting from increases or decreases in average use by residential and commercial customers. NW Natural also has a weather normalization tariff in Oregon, WARM, which adjusts customer bills up or down to offset changes in margin resulting from above- or below-average temperatures during the winter heating season. Both mechanisms are designed to reduce, but not eliminate, the volatility of customer bills and natural gas distribution earnings. See "Regulatory Matters—Rate Mechanisms" above.

The NGD business is seasonal in nature due to higher gas usage by residential and commercial customers during the cold winter heating months. Other categories of customers experience seasonality in their usage but to a lesser extent. Seasonality affects the comparability of the results of operations of the NGD business across quarters but not across years.

NGD segment highlights include:

<i>Dollars and therms in millions, except EPS data</i>	2018	2017	2016
NGD net income	\$ 57.5	\$ 60.5	\$ 54.6
Adjusted NGD net income ⁽¹⁾	57.5	61.5	56.6
EPS - NGD segment	1.99	2.10	1.96
Adjusted EPS - NGD segment ⁽¹⁾	1.99	2.13	2.03
Gas sold and delivered (in therms)	1,128	1,240	1,085
NGD margin ⁽²⁾	\$ 383.7	\$ 392.6	\$ 376.6

⁽¹⁾ See the Non-GAAP Reconciliations table at the beginning of Item 7 for a reconciliation of this non-GAAP financial measure to its closest U.S. GAAP measure.

⁽²⁾ See Natural Gas Distribution Margin Table below for additional detail.

2018 COMPARED TO 2017. NGD net income was \$57.5 million in 2018 compared to \$60.5 million in 2017. NGD net income in 2017 includes a \$1.0 million loss from the remeasurement of deferred income tax balances due to the enactment of the TCJA. Excluding this item, adjusted NGD net income decreased \$4.0 million, or \$0.14 per share. See the NW Holdings non-GAAP reconciliations at the beginning of Item 7 for additional information.

The primary factors contributing to the decrease in adjusted NGD net income were as follows:

- a \$8.9 million decrease in natural gas distribution margin primarily due to:
 - a \$7.9 million decrease due to revenues collected and deferred in association with the TCJA; partially offset by
 - a \$4.8 million increase from customer growth; and
 - the majority of the remaining decrease was due to the effects of warmer than average weather in 2018 compared to colder than average weather in 2017, partially offset by higher rates from the 2018 Oregon general rate case effective November 1, 2018.
- a \$6.0 million increase in operations and maintenance expense driven largely from payroll and benefits due to increased headcount, general salary increases, and increased professional services and contract labor expense;
- a \$4.2 million decrease in other income (expense), net, primarily due to increases in pension non-service component costs, partially offset by increases in the equity portion of AFUDC in 2018; and
- a \$4.0 million increase in depreciation expense primarily due to additional capital expenditures; partially offset by
- a \$20.0 million decrease in income tax expense primarily due to the reduction in the federal statutory tax rate from the TCJA and lower pretax income.

Total natural gas sold and delivered in 2018 decreased 9% over 2017 primarily due to the impact of weather that was 26% warmer than the prior period and 15% warmer than average.

2017 COMPARED TO 2016. NGD net income was \$60.5 million in 2017 compared to \$54.6 million in 2016, which includes the \$1.0 million loss from the remeasurement of

deferred income tax balances associated with the TCJA in 2017 and the after-tax \$2.0 million regulatory disallowance in 2016. Excluding these items, adjusted NGD net income increased \$4.9 million, or \$0.10 per share. See the Non-GAAP reconciliations at the beginning of Item 7 for additional information.

The primary factors contributing to this increase in adjusted NGD net income were as follows:

- a \$16.0 million increase in NGD margin primarily due to:
 - a \$6.8 million increase from customer growth; partially offset by;
 - a \$2.7 million decrease from gains in gas cost incentive sharing due to actual gas prices being lower than those estimated in the 2016-2017 PGA, but not by the same magnitude as in the prior period;
 - a portion of the remaining increase was due to the effects of colder than average weather in 2017 compared to warmer than average weather in 2016.
- a \$2.2 million increase in other income (expense), net, primarily due to an increase in the equity portion of AFUDC in 2017; partially offset by
- a \$10.4 million increase in operations and maintenance expense driven largely from payroll and benefits due to increased headcount, general salary increases, and increased safety equipment update costs; and
- a \$3.4 million increase in depreciation expense primarily due to additional capital expenditures.

Total natural gas sold and delivered in 2017 increased 14% over 2016 primarily due to the impact of weather that was 48% colder than the prior period and 15% colder than average.

NATURAL GAS DISTRIBUTION MARGIN TABLE. The following table summarizes the composition of NGD gas volumes, revenues, and cost of sales:

<i>In thousands, except degree day and customer data</i>	2018	2017	2016	Favorable/(Unfavorable)	
				2018 vs. 2017	2017 vs. 2016
<u>NGD volumes (therms):</u>					
Residential and commercial sales	661,163	740,369	609,222	(79,206)	131,147
Industrial sales and transportation	467,040	499,924	475,774	(32,884)	24,150
Total NGD volumes sold and delivered	<u>1,128,203</u>	<u>1,240,293</u>	<u>1,084,996</u>	<u>(112,090)</u>	<u>155,297</u>
<u>NGD operating revenues:</u>					
Residential and commercial sales	\$ 621,782	\$ 684,214	\$ 604,390	\$ (62,432)	\$ 79,824
Industrial sales and transportation	58,713	63,925	59,386	(5,212)	4,539
Other revenues	153	3,872	3,812	(3,719)	60
Less: Revenue taxes ⁽¹⁾	—	19,069	17,111	(19,069)	1,958
Total NGD operating revenues	<u>680,648</u>	<u>732,942</u>	<u>650,477</u>	<u>(52,294)</u>	<u>82,465</u>
Less: Cost of gas	255,743	325,019	260,588	69,276	(64,431)
Less: Environmental remediation expense	11,127	15,291	13,298	4,164	(1,993)
Less: Revenue taxes ⁽¹⁾	30,082	—	—	(30,082)	—
NGD margin	<u>383,696</u>	<u>392,632</u>	<u>376,591</u>	<u>(8,936)</u>	<u>16,041</u>
<u>NGD margin:⁽²⁾</u>					
Residential and commercial sales	\$ 352,710	\$ 355,736	\$ 338,060	\$ (3,026)	\$ 17,676
Industrial sales and transportation	30,817	31,847	30,989	(1,030)	858
Miscellaneous revenues	5,542	3,865	3,796	1,677	69
Gain from gas cost incentive sharing	(27)	1,237	3,960	(1,264)	(2,723)
Other margin adjustments ⁽³⁾	(5,346)	(53)	(214)	(5,293)	161
NGD margin	<u>\$ 383,696</u>	<u>\$ 392,632</u>	<u>\$ 376,591</u>	<u>\$ (8,936)</u>	<u>\$ 16,041</u>
<u>Degree days⁽⁴⁾</u>					
Average ⁽⁵⁾	2,714	2,705	2,716	9	(11)
Actual	2,313	3,114	2,098	(26)%	48%
Percent colder (warmer) than average weather ⁽⁵⁾	(15)%	15%	(23)%		
<u>NGD Meters - end of period:</u>					
Residential meters	680,134	668,803	656,855	11,331	11,948
Commercial meters	69,259	68,050	67,278	1,209	772
Industrial meters	1,028	1,021	1,013	7	8
Total number of meters	<u>750,421</u>	<u>737,874</u>	<u>725,146</u>	<u>12,547</u>	<u>12,728</u>
<u>NGD Meter growth:</u>					
Residential meters	1.7 %	1.8%			
Commercial meters	1.8 %	1.1%			
Industrial meters	0.7 %	0.8%			
Total meter growth	1.7 %	1.8%			

(1) The change in presentation of revenue taxes was a result of the adoption of ASU 2014-09 "Revenue From Contracts with Customers" and all related amendments on January 1, 2018. This change had no impact on NGD margin results. For additional information, see Note 2.

(2) Amounts reported as margin for each category of meters are operating revenues, which are net of revenue taxes, less cost of gas and environmental remediation expense.

(3) Other margin adjustments include revenue deferrals of \$7.9 million for the year ended December 31, 2018 associated with the decline of the U.S. federal corporate income tax rate.

(4) Heating degree days are units of measure reflecting temperature-sensitive consumption of natural gas, calculated by subtracting the average of a day's high and low temperatures from 59 degrees Fahrenheit.

(5) Average weather represents the 25-year average of heating degree days. Through October 31, 2018, average weather is calculated over the period 1986 - 2010, as determined in NW Natural's 2012 Oregon general rate case, and beginning November 1, 2018, average weather is calculated over the period May 31, 1992 through May 30, 2017, as determined in NW Natural's 2018 Oregon general rate case.

Residential and Commercial Sales

The primary factors that impact results of operations in the residential and commercial markets are customer growth, seasonal weather patterns, energy prices, competition from other energy sources, and economic conditions in our service areas. The impact of weather on margin is significantly reduced through NW Natural's weather normalization mechanism in Oregon; approximately 81% of NW Natural's total customers are covered under this mechanism. The remaining customers either opt out of the mechanism or are located in Washington, which does not have a similar mechanism in place. For more information on the weather mechanism, see "Regulatory Matters—Rate Mechanisms—*Weather Normalization Mechanism*" above.

NGD residential and commercial sales highlights include:

<i>In millions</i>	2018	2017	2016
<u>Volumes (therms):</u>			
Residential sales	411.7	465.2	379.2
Commercial sales	249.5	275.2	230.0
Total volumes	<u>661.2</u>	<u>740.4</u>	<u>609.2</u>
<u>Operating revenues:</u>			
Residential sales	\$ 418.4	\$ 455.9	\$ 404.3
Commercial sales	203.3	228.3	200.1
Total operating revenues	<u>\$ 621.7</u>	<u>\$ 684.2</u>	<u>\$ 604.4</u>
<u>NGD margin:</u>			
Residential:			
Sales	\$ 240.0	\$ 262.1	\$ 223.2
Alternative revenues:			
Weather normalization	7.6	(11.9)	12.7
Decoupling	(0.6)	(2.4)	0.8
Amortization of alternative revenue	1.9	—	—
Total residential NGD margin	<u>248.9</u>	<u>247.8</u>	<u>236.7</u>
Commercial:			
Sales	103.7	101.5	87.2
Alternative revenues:			
Weather normalization	2.4	(4.6)	5.0
Decoupling	7.3	11.1	9.2
Amortization of alternative revenue	(9.6)	—	—
Total commercial NGD margin	<u>103.8</u>	<u>108.0</u>	<u>101.4</u>
Total NGD margin	<u>\$ 352.7</u>	<u>\$ 355.8</u>	<u>\$ 338.1</u>

2018 COMPARED TO 2017. The primary factors contributing to changes in the residential and commercial markets were decreases of \$62.5 million in operating revenue and \$3.1 million in NGD margin as a result of sales volume decreases of 79.2 million therms, or 11%, due to warmer than average weather in 2018 compared to colder than average weather in the prior period, partially offset by customer growth.

2017 COMPARED TO 2016. The primary factors contributing to changes in the residential and commercial markets were increases of \$79.8 million in operating revenue and \$17.7

million in natural gas distribution margin as a result of sales volume increases of 131.2 million therms, or 22%, due to customer growth and the effects of colder than average weather in 2017 compared to warmer than average weather in the prior period.

Industrial Sales and Transportation

Industrial customers have the option of purchasing sales or transportation services. Under the sales service, the customer buys the gas commodity. Under the transportation service, the customer buys the gas commodity directly from a third-party gas marketer or supplier. The NGD gas commodity cost is primarily a pass-through cost to customers; therefore, NGD profit margins are not materially affected by an industrial customer's decision to purchase gas from third parties. Industrial and large commercial customers may also select between firm and interruptible service options, with firm services generally providing higher profit margins compared to interruptible services. To help manage gas supplies, industrial tariffs are designed to provide some certainty regarding industrial customers' volumes by requiring an annual service election which becomes effective November 1, special charges for changes between elections, and in some cases, a minimum or maximum volume requirement before changing options.

NGD industrial sales and transportation highlights include:

<i>In millions</i>	2018	2017	2016
<u>Volumes (therms):</u>			
Industrial - firm sales	35.3	35.7	33.8
Industrial - firm transportation	162.7	167.7	156.9
Industrial - interruptible sales	50.6	55.1	50.4
Industrial - interruptible transportation	218.4	241.4	234.7
Total volumes	<u>467.0</u>	<u>499.9</u>	<u>475.8</u>
<u>NGD margin:</u>			
Industrial - sales and transportation	\$ 30.8	\$ 31.8	\$ 31.0

2018 COMPARED TO 2017. Industrial sales and transportation volumes decreased by 32.9 million therms and NGD margin decreased \$1.0 million due to lower usage from warmer than average weather in 2018 compared to colder than average weather in 2017.

2017 COMPARED TO 2016. Industrial sales and transportation volumes increased by 24.1 million therms and NGD margin increased \$0.8 million due to higher usage from colder than average weather in 2017 compared to warmer than average weather in 2016, and increased usage from higher production load.

Other NGD Revenues

Other NGD revenues include miscellaneous fee income as well as regulatory revenue adjustments, which reflect current period deferrals to and prior year amortizations from regulatory asset and liability accounts, except for gas cost deferrals which flow through cost of gas. Decoupling and other regulatory amortizations from prior year deferrals are included in revenues from residential, commercial, and industrial firm customers.

Other NGD revenue highlights include:

<i>In millions</i>	2018	2017	2016
Other NGD revenues	\$ 5.5	\$ 3.9	\$ 3.8

Other NGD revenue increased \$1.6 million in 2018 compared to 2017 due to increases in entitlement and curtailment revenue due to system restrictions for certain industrial and commercial customers as a result of a Canadian pipeline event in October 2018 that disrupted gas supply. Other NGD revenues remained flat between 2017 and 2016.

Cost of Gas

Cost of gas as reported by the NGD segment includes gas purchases, gas withdrawn from storage inventory, gains and losses from commodity hedges, pipeline demand costs, seasonal demand cost balancing adjustments, regulatory gas cost deferrals, gas reserves costs, and company gas use. The OPUC and WUTC generally require natural gas commodity costs to be billed to customers at the actual cost incurred, or expected to be incurred. Customer rates are set each year so that if cost estimates were met the NGD business would not earn a profit or incur a loss on gas commodity purchases; however, in Oregon we have the incentive sharing mechanism described under "Regulatory Matters—Rate Mechanisms—*Purchased Gas Adjustment*" above. In addition to the PGA incentive sharing mechanism, gains and losses from hedge contracts entered into after annual PGA rates are effective for Oregon customers are also required to be shared and therefore may impact net income. Further, NW Natural also has a regulatory agreement whereby it earns a rate of return on its investment in the gas reserves acquired under the original agreement with Encana and includes gas from the amended gas reserves agreement at a fixed rate of \$0.4725 per therm, which are also reflected in NGD margin. See "Application of Critical Accounting Policies and Estimates—*Accounting for Derivative Instruments and Hedging Activities*" below.

Cost of gas highlights include:

<i>Dollars and therms in millions</i>	2018	2017	2016
Cost of gas	\$ 255.7	\$ 325.0	\$ 260.6
Volumes sold (therms)	747	831	693
Average cost of gas (cents per therm)	\$ 0.34	\$ 0.39	\$ 0.38
Gain from gas cost incentive sharing	—	1.2	4.0

2018 COMPARED TO 2017. Cost of gas decreased \$69.3 million, or 21%, primarily due to the 10% decrease in volumes sold due to warmer than average weather in 2018 compared to colder than average weather in 2017, and lower average cost of gas collected from customers, partially offset by customer growth.

2017 COMPARED TO 2016. Cost of gas increased \$64.4 million, or 25%, primarily due to the 20% increase in volumes sold due to colder than average weather in 2017 compared to warmer than average weather in 2016, and customer growth.

The effect on net income from NW Natural's gas cost incentive sharing mechanism resulted in a slight margin loss in 2018 and margin gains of \$1.2 million and \$4.0 million for 2017 and 2016, respectively. In 2018, actual prices closely aligned with estimated prices included in customer rates. In 2017 and 2016, actual prices were lower than the estimated prices included in customer rates due to warmer than average weather nationally, which resulted in lower national natural gas commodity prices. For a discussion of the gas cost incentive sharing mechanism, see "Regulatory Matters—Rate Mechanisms—*Purchased Gas Adjustment*" above.

Other

Other activities aggregated and reported as other at NW Natural include the non-NGD storage activity at Mist as well as asset management services and the appliance retail center operations. Other activities aggregated and reported as other at NW Holdings include NWN Energy's equity investment in Trail West Holding, LLC (TWH), which is pursuing the development of a proposed natural gas pipeline through its wholly-owned subsidiary, Trail West Pipeline, LLC (TWP); NNG Financial's investment in Kelso-Beaver Pipeline (KB Pipeline); and NWN Water, which owns and continues to pursue investments in the water sector. See Note 4 for further discussion of our business segment and other, as well as our direct and indirect wholly-owned subsidiaries, and Note 13 for further details on our investment in TWH.

At Mist, NW Natural provides gas storage services to customers in the interstate and intrastate markets using storage capacity that has been developed in advance of NGD customers' requirements. Pre-tax income from gas storage at Mist and asset management services is subject to revenue sharing with NGD customers.

Under this regulatory incentive sharing mechanism, NW Natural retains 80% of pre-tax income from Mist gas storage services and asset management services when the underlying costs of the capacity being used are not included in NGD business rates. The remaining 20% is credited to a deferred regulatory account for credit to NGD customers.

Through October 2018, when the capacity used was included in NGD rates, NW Natural retained 33% of pre-tax income with the remaining 67% credited to a deferred regulatory account for credit to NGD customers. In conjunction with the Oregon rate case, effective November 2018 NW Natural retains 10% of pre-tax income from such storage and asset management services and 90% is credited to NGD business customers. See "Regulatory Matters—*Regulatory Proceeding Updates*" above for information regarding an open docket related to this incentive sharing mechanism.

The following table presents the results of activities aggregated and reported as other for both NW Holdings and NW Natural:

<i>In millions, except EPS data</i>	2018	2017	2016
NW Natural other - net income	\$ 10.6	\$ 11.2	\$ 8.3
Other NW Holdings activity	(0.8)	0.4	(0.4)
NW Holdings other - net income	9.8	11.6	7.9
EPS - NW Holdings - other	0.34	0.41	0.29

The significant drivers of changes in other net income discussed below apply to both NW Holdings and NW Natural.

2018 COMPARED TO 2017. Other net income decreased compared to the prior period primarily due to \$4.2 million in higher income tax expense driven by \$4.4 million in income tax benefits recognized in 2017 from the enactment of the TCJA, partially offset by a \$2.8 million increase in revenues from asset management agreements for Mist storage and transportation capacity.

2017 COMPARED TO 2016. Other net income increased primarily due to a gain associated with the TCJA deferred taxes remeasurement, partially offset by a decrease in revenues from asset management agreements for Mist storage and transportation capacity.

Consolidated Operations

Operations and Maintenance

Operations and maintenance highlights include:

<i>In millions</i>	2018	2017	2016
NW Natural	\$ 155.2	\$ 152.2	\$ 136.0
Other NW Holdings operations and maintenance	1.5	0.2	0.7
NW Holdings	<u>\$ 156.7</u>	<u>\$ 152.4</u>	<u>\$ 136.7</u>

The significant drivers of changes in operations and maintenance expenses discussed below apply to both NW Holdings and NW Natural.

2018 COMPARED TO 2017. Operations and maintenance expense increased \$4.3 million and \$3.0 million for NW Holdings and NW Natural, respectively, primarily due to the following factors:

- a \$3.4 million increase in NGD payroll and benefits due to increased headcount and general salary increases; and
- a \$3.2 million increase in NGD non-payroll costs primarily due to increases in general professional services and contract labor.

2017 COMPARED TO 2016. Operations and maintenance expense increased \$15.7 million and \$16.2 million for NW Holdings and NW Natural, respectively, primarily due to the following factors:

- a \$7.3 million increase in NGD payroll and benefits due to increased headcount and general salary increases; and
- a \$1.0 million increase in safety equipment upgrade costs.

Delinquent customer receivable balances continue to remain at historically low levels. Bad debt expense as a percent of revenues was 0.1% for 2018, 2017, and 2016.

Depreciation and Amortization

Depreciation and amortization highlights include:

<i>In millions</i>	2018	2017	2016
NW Natural	\$ 85.0	\$ 81.0	\$ 77.6
Other NW Holdings depreciation and amortization	0.2	0.1	—
NW Holdings	<u>\$ 85.2</u>	<u>\$ 81.1</u>	<u>\$ 77.6</u>

The significant drivers of changes in depreciation and amortization discussed below apply to both NW Holdings and NW Natural.

2018 COMPARED TO 2017. Depreciation and amortization expense increased by \$4.1 million and \$4.0 million for NW Holdings and NW Natural, respectively, primarily due to NGD plant additions that included investments in natural gas transmission and distribution systems supporting customer growth, safety, reliability, facility upgrades, and enhanced technology.

2017 COMPARED TO 2016. Depreciation and amortization expense increased by \$3.5 million and \$3.4 million for NW Holdings and NW Natural, respectively, primarily due to NGD plant additions that included investments in natural gas transmission and distribution systems, storage facilities, and technology.

Other Income (Expense), Net

Other income (expense), net highlights include:

<i>In millions</i>	2018	2017	2016
Pension and other postretirement costs other than service costs	\$ (9.1)	\$ (6.1)	\$ (7.0)
Equity portion of AFUDC	4.1	2.7	—
Gains from company-owned life insurance	1.7	2.5	1.7
Net interest income (expense) on deferred regulatory accounts	1.7	2.0	(0.1)
Other non-operating	(2.0)	(1.3)	(1.6)
NW Natural total other income (expense), net	<u>\$ (3.6)</u>	<u>\$ (0.2)</u>	<u>\$ (7.0)</u>
Other NW Holdings activity	—	(0.1)	(0.2)
NW Holdings total other income (expense), net	<u>\$ (3.6)</u>	<u>\$ (0.3)</u>	<u>\$ (7.2)</u>

The significant drivers of changes in Other income (expense) discussed below apply to both NW Holdings and NW Natural.

2018 COMPARED TO 2017. Other income (expense), net, decreased \$3.3 million and \$3.4 million at NW Holdings and NW Natural, respectively, primarily due to a \$3.0 million increase in pension and other postretirement non-service costs and \$0.8 million lower gains from company-owned life insurance, partially offset by a \$1.4 million increase in the equity portion of AFUDC.

2017 COMPARED TO 2016. Other income (expense), net, increased \$6.9 million and \$6.8 million at NW Holdings and NW Natural, respectively, primarily due to the January 2016 Order from the OPUC, which resulted in a pre-tax \$2.8 million interest disallowance in 2016, an increase of \$2.7 million in the equity portion of AFUDC, and \$0.8 million in higher gains from company-owned life insurance.

In addition to fluctuations in other income (expense), net reported above, from 2011 through October 31, 2018, NW Natural had OPUC approval to defer certain pension costs in excess of what was recovered in customer rates, with the majority of such costs being non-service component costs reflected within other income (expense), net. This pension cost deferral was recorded to a regulatory balancing account, which stabilized the amount of other income (expense), net each year. Total pension cost deferrals, excluding interest, were \$10.3 million, \$6.5 million, and \$6.3 million for the years ended December 31, 2018, 2017 and 2016, respectively. As a result, increased pension costs had a minimal effect on other income (expense), net in 2018, 2017, and 2016, with the increase principally related to the costs allocated to NW Natural's Washington operations, which were not covered by the pension balancing account.

On October 26, 2018, the OPUC issued an order to freeze NW Natural's pension balancing account as of October 31, 2018. The order directed NW Natural and the other parties to the rate case to engage in further regulatory proceedings extending the general rate case docket to resolve open issues with respect to the recovery of the pension balancing account. On February 4, 2019, NW Natural and the other parties to the rate case filed a joint stipulation with the OPUC outlining a resolution to the issue. See Note 9 and "Regulatory Matters—Regulatory Proceeding Updates—Oregon General Rate Case".

Interest Expense, Net

Interest expense, net highlights include:

<i>In millions</i>	2018	2017	2016
NW Natural	\$ 37.0	\$ 37.5	\$ 38.1
Other NW Holdings interest expense	0.1	—	—
NW Holdings	<u>\$ 37.1</u>	<u>\$ 37.5</u>	<u>\$ 38.1</u>

The significant drivers of changes in interest expense, net discussed below apply to both NW Holdings and NW Natural.

2018 COMPARED TO 2017. Interest expense, net of amounts capitalized decreased \$0.4 million and \$0.5 million at NW Holdings and NW Natural, respectively, primarily due to a \$2.3 million increase in the interest-related portion of AFUDC, partially offset by increased commercial paper interest expenses of \$1.6 million.

2017 COMPARED TO 2016. Interest expense, net of amounts capitalized, decreased \$0.6 million at both NW Holdings and NW Natural primarily due to a \$2.1 million increase in the interest-related portion of AFUDC, partially offset by increased interest expense of \$1.5 million due to the issuance of long-term debt in December 2016 and August 2017.

Income Tax Expense

NW Holdings income tax expense highlights include:

<i>In millions</i>	2018	2017	2016
Income tax expense	\$ 24.2	\$ 41.0	\$ 43.0
Effects of non-GAAP adjustments ⁽¹⁾	—	—	1.3
Effects from the TCJA ⁽¹⁾	—	3.4	—
Adjusted income tax expense	<u>\$ 24.2</u>	<u>\$ 44.4</u>	<u>\$ 44.3</u>

Effective tax rate	26.4%	36.3%	40.8%
Adjusted effective tax rate	26.4%	39.3%	40.8%

⁽¹⁾ See the Non-GAAP Reconciliations table at the beginning of Item 7 for a reconciliation of this non-GAAP financial measure to its closest U.S.GAAP measure.

NW Natural income tax expense highlights include:

<i>In millions</i>	2018	2017	2016
Income tax expense	\$ 24.5	\$ 41.5	\$ 43.3
Effects of non-GAAP adjustments ⁽¹⁾	—	—	1.3
Effects from the TCJA ⁽¹⁾	—	3.0	—
Adjusted income tax expense	<u>\$ 24.5</u>	<u>\$ 44.5</u>	<u>\$ 44.6</u>

Effective tax rate	26.4%	36.6%	40.8%
Adjusted effective tax rate	26.4%	39.3%	40.8%

⁽¹⁾ See the Non-GAAP Reconciliations table at the beginning of Item 7 for a reconciliation of this non-GAAP financial measure to its closest U.S.GAAP measure.

The significant drivers of changes in Income tax expense discussed below apply to both NW Holdings and NW Natural.

2018 COMPARED TO 2017. The effective tax rate decreased by 9.9% and 10.2% at NW Holdings and NW Natural, respectively, primarily due to a decline in the statutory income tax rate from 39.5% to 26.5% as a result of the TCJA enactment in 2017. Income tax expense decreased due to the TCJA and lower pre-tax income, partially offset by a benefit of \$3.4 million recognized in 2017 at NW Holdings and a benefit of \$3.0 million recognized in 2017 at NW Natural from the remeasurement of deferred tax balances upon the TCJA enactment date. Excluding the impact of the 2017 remeasurement benefits of \$3.4 million and \$3.0 million at NW Holdings and NW Natural, respectively, the adjusted effective tax rate decreased 12.9% at both NW Holdings and NW Natural due to the statutory tax rate declining from the TCJA. See the Non-GAAP reconciliations at the beginning of Item 7 for additional information.

2017 COMPARED TO 2016. The effective tax rate decreased by 4.5% and 4.2% at NW Holdings and NW Natural, respectively. Excluding the tax benefits associated with the TCJA enactment in 2017 of \$3.4 million and \$3.0 million at NW Holdings and NW Natural, respectively, and the \$1.3 million tax effects of non-GAAP adjustments in 2016 at both NW Holdings and NW Natural, the adjusted effective tax rate decreased 1.5% at both NW Holdings and NW Natural. See the Non-GAAP reconciliations at the beginning of Item

7 for additional information. The adjusted effective tax rate decreased primarily as a result of AFUDC equity income and increased stock-based compensation deductions in 2017.

Pending Sale of Gill Ranch Storage

On June 20, 2018, NWN Gas Storage, a wholly owned subsidiary of NW Holdings, entered into a Purchase and Sale Agreement (the Sale Agreement) that provides for the sale by NWN Gas Storage of all of its membership interests in Gill Ranch. Gill Ranch owns a 75% interest in the natural gas storage facility located near Fresno, California known as the Gill Ranch Gas Storage Facility. PG&E owns the remaining 25% interest in the Gill Ranch Facility.

In the Sale Agreement, NWN Gas Storage makes representations and warranties concerning, among other things, Gill Ranch, the Gill Ranch Facility and Gill Ranch's business and contractual relationships, and agrees to cause Gill Ranch to conduct its business and maintain its properties in the ordinary course, consistent with material agreements and past practice.

The Sale Agreement provides for an initial cash purchase price of \$25.0 million (subject to a working capital adjustment), plus potential additional payments to NWN Gas Storage of up to \$26.5 million in the aggregate if Gill Ranch achieves certain economic performance levels for the first three full gas storage years (April 1 of one year through March 31 of the following year) occurring after the closing and the remaining portion of the gas storage year during which the closing occurs.

The closing of the transaction is subject to approval by the CPUC, other customary closing conditions and covenants, including the requirement that all of the representations and warranties be true and correct as of the closing date except, as would not, in the case of certain representations and warranties, be reasonably expected to have a material adverse effect on Gill Ranch. The agreement is subject to termination by either party if the transaction has not closed by June 20, 2019, subject to automatic extension for six months if the CPUC has not issued an order approving the transaction by that date.

In July 2018, Gill Ranch filed an application with the CPUC for approval of this transaction. On February 14, 2019, the active parties to the CPUC proceeding filed a settlement agreement with the CPUC. The CPUC is expected to rule on the settlement agreement within 90 days of its filing, but may grant further time for public comment. We expect an order on this matter by the end of June.

On January 29, 2019, PG&E filed voluntary petitions for relief under chapter 11 bankruptcy. Although we do not currently anticipate that the PG&E filing will affect the sale of Gill Ranch, we cannot fully predict the course of the bankruptcy proceedings or the impact on the sale and will continue to monitor the situation closely. We will continue to seek to close the transaction in the first half of 2019.

The results of Gill Ranch Storage have been determined to be discontinued operations and are presented separately, net of tax, from the results of continuing operations of NW Holdings for all periods presented. See Note 18 for more

information on the Sale Agreement and the results of our discontinued operations.

The CPUC regulates Gill Ranch under a market-based rate model which allows for the price of storage services to be set by the marketplace. The CPUC also regulates the issuance of securities, system of accounts, and regulates intrastate storage services. The California Department of Oil Gas and Geothermal Resources (DOGGR) regulations for gas storage wells were finalized in June 2018, and the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) proposed new federal regulations for underground natural gas storage facilities, which are expected to be finalized during 2019 and increase costs for all storage providers. NW Holdings will continue to monitor and assess the new regulations until the sale is complete, which is expected in 2019.

Short-term liquidity for Gill Ranch is supported by cash balances, internal cash flow from operations, equity contributions from its parent company, and, if necessary, additional external financing.

FINANCIAL CONDITION

Capital Structure

One of our long-term goals is to maintain a strong and balanced consolidated capital structure, while maintaining a long-term target capital structure at NW Natural of 50% common stock and 50% long-term debt to align to allocations prescribed by NW Natural's regulators. When additional capital is required, debt or equity securities are issued depending on both the target capital structure and market conditions. These sources of capital are also used to fund long-term debt retirements and short-term commercial paper maturities. See "*Liquidity and Capital Resources*" below and Note 8.

Achieving our target capital structure and maintaining sufficient liquidity to meet operating requirements are necessary to maintain attractive credit ratings and provide access to capital markets at reasonable costs.

NW Holdings' consolidated capital structure was as follows:

	December 31,	
	2018	2017
Common stock equity	44.4%	47.1%
Long-term debt	41.1	43.3
Short-term debt, including current maturities of long-term debt	14.5	9.6
Total	<u>100.0%</u>	<u>100.0%</u>

NW Natural's consolidated capital structure was as follows:

	December 31,	
	2018	2017
Common stock equity	42.9%	47.1%
Long-term debt	42.2	43.3
Short-term debt, including current maturities of long-term debt	14.9	9.6
Total	100.0%	100.0%

During 2018, changes to NW Holdings' and NW Natural's capital structures were primarily due to increases in short term debt at NW Natural partially offset by lower net proceeds from long-term debt activity at NW Natural. See further discussion below in "Cash Flows — *Financing Activities*".

Liquidity and Capital Resources

At December 31, 2018 and December 31, 2017, NW Holdings had approximately \$12.6 million and \$3.5 million, and NW Natural had approximately \$7.9 million and \$3.1 million of cash and cash equivalents, respectively. In order to maintain sufficient liquidity during periods when capital markets are volatile, NW Holdings and NW Natural may elect to maintain higher cash balances and add short term borrowing capacity. NW Holdings and NW Natural may also pre-fund their respective capital expenditures when long-term fixed rate environments are attractive.

NW Holdings

For NW Holdings, short-term liquidity is primarily provided by cash balances, dividends from its operating subsidiaries, in particular NW Natural, available cash from a multi-year credit facility, and short-term credit facilities. NW Holdings also has a universal shelf registration statement filed with the SEC for the issuance of debt and equity securities. NW Holdings long-term debt, if any, and equity issuances are primarily used to provide equity contributions to NW Holdings' operating subsidiaries for operating and capital expenditures and other corporate purposes. NW Holdings' issuance of securities is not subject to regulation by state public utility commissions, but the dividends from NW Natural to NW Holdings are subject to regulatory ring-fencing provisions.

As part of the ring-fencing conditions agreed upon with the OPUC and WUTC in connection with the holding company reorganization, NW Natural may not pay dividends or make distributions to NW Holdings if NW Natural's credit ratings and common equity ratio fall below specified levels. If NW Natural's long term secured credit ratings are below A- for S&P and A3 for Moody's, dividends may be issued so long as NW Natural's common equity ratio is 45% or more. If NW Natural's long term secured credit ratings are below BBB for S&P and Baa2 for Moody's, dividends may be issued so long as NW Natural's common equity ratio is 46% or more. Dividends may not be issued if NW Natural's long-term secured credit ratings are BB+ or below for S&P or Ba1 or below for Moody's, or if NW Natural's common equity ratio is below 44%. In each case, common equity ratios are determined based on a preceding or projected 13-month average. In addition, there are certain OPUC notice

requirements for dividends in excess of 5% of NW Natural's retained earnings.

Additionally, if NW Natural's common equity (excluding goodwill and equity associated with non-regulated assets), on a preceding or projected 13-month average basis, is less than 46% of NW Natural's capital structure (common equity and long-term debt excluding imputed debt or debt-like lease obligations), NW Natural is required to notify the OPUC, and if the common equity ratio falls below 44%, file a plan with the OPUC to restore its equity ratio to 44%. This condition is designed to ensure NW Natural continues to be adequately capitalized under the holding company structure. Under the WUTC order, the average common equity ratio must not exceed 56%.

At December 31, 2018, NW Natural satisfied the ring-fencing provisions described above.

NW HOLDINGS DIVIDEND POLICY. Quarterly dividends have been paid on common stock each year since NW Holdings' predecessor's stock was first issued to the public in 1951. Annual common stock dividend payments per share, adjusted for stock splits, have increased each year since 1956. The declarations and amount of future dividends to shareholders will depend upon earnings, cash flows, financial condition, NW Natural's ability to pay dividends to NW Holdings and other factors. The amount and timing of dividends payable on common stock is at the sole discretion of the NW Holdings Board of Directors.

Based on several factors, including current cash reserves, committed credit facilities, its ability to receive dividends from its operating subsidiaries, in particular NW Natural, and an expected ability to issue long-term debt and equity securities in the capital markets, NW Holdings believes its liquidity is sufficient to meet anticipated near-term cash requirements, including all contractual obligations, investing, and financing activities as discussed in "*Contractual Obligations and Cash Flows*" below.

Natural Gas Distribution Segment

For the NGD business segment, short-term borrowing requirements typically peak during colder winter months when the NGD business borrows money to cover the lag between natural gas purchases and bill collections from customers. Short-term liquidity for the NGD business is primarily provided by cash balances, internal cash flow from operations, proceeds from the sale of commercial paper notes, as well as available cash from multi-year credit facilities, short-term credit facilities, company-owned life insurance policies, the sale of long-term debt, and equity contributions from NW Holdings. NW Natural's long-term debt and contributions from NW Holdings are primarily used to finance NGD capital expenditures, refinance maturing debt, and provide temporary funding for other general corporate purposes of the NGD business.

Based on NW Natural's current debt ratings (see "*Credit Ratings*" below), it has been able to issue commercial paper and long-term debt at attractive rates and has not needed to borrow or issue letters of credit from its back-up credit facility. In the event NW Natural is not able to issue new debt due to adverse market conditions or other reasons, NW Natural expects that near-term liquidity needs can be met

using internal cash flows, issuing commercial paper, receiving equity contributions from NW Holdings, or, for the NGD segment, drawing upon a committed credit facility. NW Natural also has a universal shelf registration statement filed with the SEC for the issuance of secured and unsecured debt securities. As of December 31, 2018, NW Natural has Board authorization to issue up to \$325 million of additional FMBs and OPUC approval to issue up to \$25 million of additional long-term debt for approved purposes.

In the event senior unsecured long-term debt ratings are downgraded, or outstanding derivative positions exceed a certain credit threshold, counterparties under derivative contracts could require NW Natural to post cash, a letter of credit, or other forms of collateral, which could expose NW Natural to additional cash requirements and may trigger increases in short-term borrowings while in a net loss position. NW Natural was not required to post collateral at December 31, 2018. However, if the credit risk-related contingent features underlying these contracts were triggered on December 31, 2018, assuming long-term debt ratings dropped to non-investment grade levels, NW Natural could have been required to post \$4.5 million in collateral with our counterparties. See "*Credit Ratings*" below and Note 15.

Other items that may have a significant impact on NW Natural's liquidity and capital resources include NW Natural's pension contribution requirements and environmental expenditures.

PENSION CONTRIBUTION. NW Natural expects to make contributions to its company-sponsored defined benefit plan, which is closed to new employees, over the next several years until the plan is fully funded under the Pension Protection Act rules, including the rules issued under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Highway and Transportation Funding Act of 2014 (HATFA). See "*Application of Critical Accounting Policies—Accounting for Pensions and Postretirement Benefits*" below.

BONUS DEPRECIATION. Fifty percent bonus depreciation was available for a large portion of our capital expenditures in 2016 and 2017 for both federal and Oregon taxes. This reduced taxable income and provided cash flow benefits. However, due to the enactment of the TCJA on December 22, 2017, bonus depreciation is eliminated for regulated NGD-business property acquired after December 31, 2017. Accordingly, we do not anticipate similar cash flow benefits related to bonus depreciation in the future.

ENVIRONMENTAL EXPENDITURES. NW Natural expects to continue using cash resources to fund environmental liabilities. In 2015, NW Natural received an Order from the OPUC regarding the SRRM mechanism and began recovering amounts through NGD business rates in November 2015. In addition, the OPUC issued a subsequent Order regarding SRRM implementation in

January 2016. See Note 17, and "Results of Operations—Regulatory Matters—*Environmental Costs*" above.

Based on several factors, including current credit ratings, NW Natural's commercial paper program, current cash reserves, committed credit facilities, and an expected ability to issue long-term debt and receive equity contributions from NW Holdings, NW Natural believes its liquidity is sufficient to meet anticipated near-term cash requirements, including all contractual obligations, investing, and financing activities as discussed in "*Contractual Obligations*" and "*Cash Flows*" below.

NW NATURAL DIVIDEND POLICY. The declarations and amount of future dividends to NW Holdings will depend upon earnings, cash flows, financial condition, the satisfaction of OPUC and WUTC regulatory ring-fencing restrictions, and other factors. The amount and timing of dividends payable on common stock is subject to approval of the NW Natural Board of Directors.

OFF-BALANCE SHEET ARRANGEMENTS. Except for certain lease and purchase commitments, NW Holdings and NW Natural have no material off-balance sheet financing arrangements. See "*Contractual Obligations*" below.

In October 2017, NW Natural entered into a 20-year operating lease agreement for a new headquarters location in Portland, Oregon. The existing headquarters lease expires in 2020 and after an extensive search and evaluation process with a focus on seismic preparedness, safety, reliability, least cost to customers and a continued commitment to NW Natural's employees and the communities NW Natural serves, NW Natural executed a new lease for suitable commercial office space in Portland, Oregon. Payments under the lease are expected to commence in 2020 and total estimated base rent payments over the life of the lease are approximately \$160 million. NW Natural has the option to extend the term of the lease for two additional seven-year periods.

Additionally, the lease was analyzed in consideration of build-to-suit lease accounting guidance with the conclusion that NW Natural is the accounting owner of the asset during construction. As a result, NW Natural recognized \$25.5 million and \$0.5 million during 2018 and 2017, respectively, in property, plant and equipment and an obligation in other non-current liabilities for the same amount on its consolidated balance sheet. These accounting transactions are non-cash in nature, and as such, are not included in the cash flow analysis and capital expenditures forecasts below, and have no impact on short-term liquidity. When the new lease accounting standard became effective for NW Holdings and NW Natural in 2019, the associated build-to-suit asset and liability were de-recognized in accordance with the new standard. See Note 2 for more information on the impacts of the new lease standard.

Contractual Obligations

The following table shows contractual obligations from continuing operations at December 31, 2018 by maturity and type of obligation:

<i>In millions</i>	Payments Due in Years Ending December 31,						Total
	2019	2020	2021	2022	2023	Thereafter	
NW Natural							
Short-term debt maturities	\$ 217.5	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 217.5
Long-term debt maturities	30.0	75.0	60.0	—	90.0	484.7	739.7
Interest on long-term debt	36.7	31.0	29.9	28.2	27.3	275.8	428.9
Postretirement benefit payments ⁽¹⁾	25.1	26.1	27.0	27.8	28.7	159.4	294.1
Operating leases	5.4	4.8	7.1	7.2	7.3	149.9	181.7
Gas purchases ⁽²⁾	144.5	2.8	2.3	—	—	—	149.6
Gas pipeline capacity commitments	82.7	80.2	66.7	61.1	60.6	580.0	931.3
Other purchase commitments ⁽³⁾	—	2.1	0.6	0.1	—	—	2.8
Other long-term liabilities ⁽⁴⁾	17.3	—	—	—	—	—	17.3
NW Natural Total	559.2	222.0	193.6	124.4	213.9	1,649.8	2,962.9
NW Holdings							
Short- and long-term obligations ⁽⁵⁾	0.4	0.3	0.3	0.3	0.3	1.4	3.0
NW Holdings Total	\$ 559.6	\$ 222.3	\$ 193.9	\$ 124.7	\$ 214.2	\$ 1,651.2	\$ 2,965.9

(1) Postretirement benefit payments primarily consists of two NW Natural items: (1) estimated pension and other postretirement plan payments, which are funded by plan assets and future cash contributions, and (2) required payments to the Western States multiemployer pension plan due to our withdrawal from the plan in December 2013. See Note 9.

(2) Gas purchases include contracts which use price formulas tied to monthly index prices. The commitment amounts presented incorporate the December 2018 first of month index price for each supply basin from which gas is purchased. For a summary of gas purchase and gas pipeline capacity commitments, see Note 16.

(3) Other purchase commitments primarily consist of remaining balances under existing purchase orders.

(4) Other long-term liabilities includes accrued vacation liabilities for management employees and deferred compensation plan liabilities for executives and directors. The timing of these payments are uncertain; however, these payments are unlikely to all occur in the next 12 months.

(5) Short- and long-term obligations include short- and long-term debt obligations and other immaterial liabilities.

In addition to known contractual obligations listed in the above table, NW Natural has also recognized liabilities for future environmental remediation or action. The exact timing of payments beyond 12 months with respect to those liabilities cannot be reasonably estimated due to numerous uncertainties surrounding the course of environmental remediation and the preliminary nature of site investigations. See Note 17 for a further discussion of environmental remediation cost liabilities.

At December 31, 2018, 635 of NW Natural's natural gas distribution employees were members of the Office and Professional Employees International Union (OPEIU) Local No. 11. In May 2014, our union employees ratified a new labor agreement (Joint Accord) that expires on November 30, 2019, and thereafter from year to year unless either party serves notice of its intent to negotiate modifications to the collective bargaining agreement. The remaining terms of Joint Accord include the following items: a scheduled 3% wage increase effective December 1 each year with the potential for up to an additional 3% per year based on wage inflation at or above 4%. The Joint Accord also maintains competitive health benefits, including a 15% to 20% premium cost sharing by employees, a 401(k) contribution of 4% for employees hired after our pension plan was closed on December 31, 2009, and a 401(k) match of 50% of the first 6% of savings, and other flexibility provisions benefiting the Company.

Short-Term Debt

The primary source of short-term liquidity for NW Holdings is cash balances, dividends from its operating subsidiaries, in particular NW Natural, available cash from a multi-year credit facility, and short-term credit facilities it may enter into from time to time.

The primary source of short-term liquidity for NW Natural is from the sale of commercial paper and bank loans. NW Holdings and NW Natural have separate commercial paper programs and separate bank facilities. In addition to issuing commercial paper or bank loans to meet working capital requirements, including seasonal requirements to finance gas purchases and accounts receivable, short-term debt may also be used to temporarily fund capital requirements. For NW Natural, commercial paper and bank loans are periodically refinanced through the sale of long-term debt or equity contributions from NW Holdings. Commercial paper, when outstanding, is sold through two commercial banks under an issuing and paying agency agreement and is supported by one or more unsecured revolving credit facilities. See "Credit Agreements" below.

At December 31, 2018 and 2017, NW Holdings had short-term debt outstanding of \$217.6 million and \$54.2 million, respectively, and NW Natural had short-term debt outstanding of \$217.5 million and \$54.2 million, respectively.

The weighted average interest rate on commercial paper outstanding at December 31, 2018 and 2017 was 3.0% and 1.9%, respectively.

Credit Agreements

NW Holdings

In October 2018, NW Holdings entered into a \$100 million credit agreement, with a feature that allows it to request increases in the total commitment amount, up to a maximum of \$150 million. The maturity date of the agreement is October 2, 2023, with available extension of commitments for two additional one-year periods, subject to lender approval.

All lenders under the NW Holdings credit agreement are major financial institutions with committed balances and investment grade credit ratings as of December 31, 2018 as follows:

In millions

Lender rating, by category	Loan Commitment
AA/Aa	\$ 100
A/A1	—
Total	<u>\$ 100</u>

Based on credit market conditions, it is possible one or more lending commitments could be unavailable to NW Holdings if the lender defaulted due to lack of funds or insolvency; however, NW Holdings does not believe this risk to be imminent due to the lenders' strong investment-grade credit ratings.

The NW Holdings credit agreement permits the issuance of letters of credit in an aggregate amount of up to \$40 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. The credit agreement requires NW Holdings to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Holdings was in compliance with this covenant at December 31, 2018, with a consolidated indebtedness to total capitalization ratio of 55.6%.

The agreement also requires NW Holdings to maintain debt ratings (which are defined by a formula using NW Natural's credit ratings in the event NW Holdings does not have a credit rating) with Standard & Poor's (S&P) and Moody's Investors Service, Inc. (Moody's) and notify the lenders of any change in its senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Holdings' debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the credit agreement. Rather, interest rates on any loans outstanding under the credit agreements are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the credit agreements when ratings are changed. NW Holdings does not currently maintain ratings with S&P or Moody's.

NW Holdings had \$2.8 million of letters of credit issued and outstanding, separate from the aforementioned credit agreement, at December 31, 2018.

NW Natural

In October 2018, NW Natural entered into a new multi-year credit agreement for unsecured revolving loans totaling \$300 million, with a feature that allows NW Natural to request increases in the total commitment amount, up to a maximum of \$450 million. The maturity date of the agreement is October 2, 2023 with an available extension of commitments for two additional one-year periods, subject to lender approval. NW Natural concurrently terminated its prior credit agreement upon the closing of the new agreement.

All lenders under the NW Natural credit agreement are major financial institutions with committed balances and investment grade credit ratings as of December 31, 2018 as follows:

In millions

Lender rating, by category	Loan Commitment
AA/Aa	\$ 300
A/A1	—
Total	<u>\$ 300</u>

Based on credit market conditions, it is possible one or more lending commitments could be unavailable to NW Natural if the lender defaulted due to lack of funds or insolvency; however, NW Natural does not believe this risk to be imminent due to the lenders' strong investment-grade credit ratings.

The NW Natural credit agreement permits the issuance of letters of credit in an aggregate amount of up to \$60 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. There were no outstanding balances under this credit agreement or the prior credit agreement at December 31, 2018 or 2017. The credit agreement requires NW Natural to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Natural was in compliance with this covenant at December 31, 2018 and 2017, with consolidated indebtedness to total capitalization ratios of 57.1% and 52.9%, respectively.

The agreement also requires NW Natural to maintain credit ratings with S&P and Moody's and notify the lenders of any change in NW Natural's senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Natural's debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the credit agreement. Rather, interest rates on any loans outstanding under the agreement are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the credit agreement when ratings are changed. See "*Credit Ratings*" below.

Credit Ratings

NW Holdings does not currently maintain ratings with S&P or Moody's. NW Natural's credit ratings are a factor of liquidity, potentially affecting access to the capital markets including the commercial paper market. NW Natural's credit ratings also have an impact on the cost of funds and the need to post collateral under derivative contracts. The following table summarizes NW Natural's current credit ratings:

	S&P	Moody's
Commercial paper (short-term debt)	A-1	P-2
Senior secured (long-term debt)	AA-	A1
Senior unsecured (long-term debt)	n/a	A3
Corporate credit rating	A+	n/a
Ratings outlook	Stable	Negative

The above credit ratings and ratings outlook are dependent upon a number of factors, both qualitative and quantitative, and are subject to change at any time. The disclosure of or reference to these credit ratings is not a recommendation to buy, sell or hold NW Holdings or NW Natural securities. Each rating should be evaluated independently of any other rating.

As part of the ring-fencing conditions agreed upon with the OPUC and WUTC in connection with the holding company reorganization, NW Holdings and NW Natural are required to maintain separate credit ratings, long-term debt ratings, and preferred stock ratings, if any.

Long-Term Debt

The following NW Natural debentures were retired in the periods indicated:

<i>In millions</i>	Years Ended December 31,		
	2018	2017	2016
<u>NW Natural First Mortgage Bonds</u>			
Series 5.15% due 2016	\$ —	\$ —	\$ 25
Series 7.00% due 2017	—	40	—
Series 6.60% due 2018	22	—	—
Series 1.55% due 2018	75	—	—
Total	\$ 97	\$ 40	\$ 25

Bankruptcy Ring-fencing Restrictions

As part of the ring-fencing conditions agreed upon with the OPUC and WUTC in connection with the holding company reorganization, NW Natural is required to have one director who is independent from NW Natural management and from NW Holdings and to issue one share of NW Natural preferred stock to an independent third party. NW Natural was in compliance with both of these ring-fencing provisions as of December 31, 2018. NW Natural may file a voluntary petition for bankruptcy only if approved unanimously by the Board of Directors of NW Natural, including the independent director, and by the holder of the preferred share.

Cash Flows

Operating Activities

Changes in our operating cash flows are primarily affected by net income or loss, changes in working capital requirements, and other cash and non-cash adjustments to operating results.

Operating activity highlights include:

<i>NW Holdings</i>			
<i>In millions</i>	2018	2017	2016
Cash provided by operating activities	\$ 168.8	\$ 206.7	\$ 222.1

<i>NW Natural</i>			
<i>In millions</i>	2018	2017	2016
Cash provided by operating activities	\$ 173.5	\$ 206.5	\$ 222.2

The significant drivers of changes in cash provided by operating activities discussed below apply to both NW Holdings and NW Natural.

2018 COMPARED TO 2017. The significant factors contributing to the \$37.9 million and \$33.0 million decreases in NW Holdings and NW Natural cash flow provided by operating activities, respectively, were as follows:

- a decrease of \$31.5 million in cash flow benefits from changes in deferred gas cost balances primarily due to higher gas prices in the fourth quarter of 2018 and lower current year PGA rates reflecting over-collections of certain fixed costs from customers in the prior year when weather was colder than average;
- a decrease of \$12.6 million due to \$27.4 million income taxes paid in 2018 due to the elimination of bonus depreciation as a result of the TCJA, compared to income taxes paid of \$14.8 million in 2017; partially offset by
- a net increase of \$10.2 million from changes in working capital related to receivables, inventories, and accounts payable reflecting warmer than average weather in 2018 compared to the prior period; and
- an increase of \$3.9 million due to a decrease in contributions paid to qualified defined benefit pension plans

2017 COMPARED TO 2016. The significant factors contributing to the \$15.4 million and \$15.7 million decreases in NW Holdings and NW Natural cash flows provided by operating activities, respectively, were as follows:

- a decrease of \$21.9 million due to \$14.8 million income taxes paid in 2017 compared to a refund of \$7.2 million in 2016 as a result of the enactment of bonus depreciation in December 2015;
- a decrease of \$5.0 million due to an increase in contributions paid to qualified defined benefit pension plans; and
- a net decrease of \$12.2 million from changes in working capital related to receivables, inventories, and accounts payable reflecting colder than average weather in 2017 compared to the prior period; partially offset by

- an increase of \$27.3 million in cash flow benefits from changes in deferred gas cost balances primarily due to the \$19.4 million gas cost savings credited to customers in 2016 that did not occur in 2017.

During the year ended December 31, 2018, NW Natural contributed \$15.5 million to its qualified defined benefit pension plan, compared to \$19.4 million for 2017 and \$14.5 million for 2016. The amount and timing of future contributions will depend on market interest rates and investment returns on the plans' assets. See Note 9.

Bonus depreciation of 50% was available for a large portion of capital expenditures for federal and Oregon purposes in 2016 and 2017. This reduced our taxable income and provided cash flow benefits. Bonus depreciation for 2015 was not enacted until December 18, 2015, and was extended retroactively back to January 1, 2015 of the respective year. As a result, estimated income tax payments were made throughout 2015 without the benefit of bonus depreciation for the year. This delayed the cash flow benefit of bonus depreciation until refunds could be requested and received. We received refunds of federal income tax overpayments of \$7.9 million during 2016. As a result of the enactment of the TCJA on December 22, 2017, bonus depreciation was eliminated for NGD business property acquired after December 31, 2017. Accordingly, we do not anticipate similar cash flow benefits related to bonus depreciation in the future.

We have lease and purchase commitments relating to our operating activities that are financed with cash flows from operations. For information on cash flow requirements related to leases and other purchase commitments, see "Financial Condition—*Contractual Obligations*" above and Note 16.

Investing Activities

Investing activity highlights include:

<i>NW Holdings</i>			
<i>In millions</i>	2018	2017	2016
Total cash used in investing activities	\$ (217.5)	\$ (214.2)	\$ (136.6)
Capital expenditures	(214.6)	(213.3)	(138.4)

<i>NW Natural</i>			
<i>In millions</i>	2018	2017	2016
Total cash used in investing activities	\$ (238.5)	\$ (214.2)	\$ (136.6)
Capital expenditures	(214.3)	(213.3)	(138.4)

NW HOLDINGS

2018 COMPARED TO 2017. The \$3.3 million increase in cash used in investing activities was primarily due to continued capital expenditures primarily related to NW Natural's North Mist Gas Storage Expansion Project as well as customer growth, system reinforcement, technology, and facilities.

2017 COMPARED TO 2016. The \$77.6 million increase in cash used in investing activities was primarily due to higher capital expenditures primarily related to NW Natural's North

Mist Gas Storage Expansion Project as well as customer growth, system reinforcement, technology, and facilities.

NW NATURAL

2018 COMPARED TO 2017. The \$24.3 million increase in cash used in investing activities was primarily due to NW Natural's initial cash contribution of \$20 million to its then subsidiary, and now parent, NW Holdings, in addition to continued capital expenditures primarily related to NW Natural's North Mist Gas Storage Expansion Project as well as customer growth, system reinforcement, technology, and facilities.

2017 COMPARED TO 2016. The \$77.6 million increase in cash used in investing activities was primarily due to higher capital expenditures primarily related to NW Natural's North Mist Gas Storage Expansion Project as well as customer growth, system reinforcement, technology, and facilities.

The operating subsidiaries of NW Holdings invest in capital expenditures to maintain and enhance the safety and integrity of their distribution systems, to expand the reach or capacity of those assets, and improve the efficiency of operations.

CAPITAL EXPENDITURES. NW Holdings' largest subsidiary, NW Natural, expects to make a significant level of investments in its NGD segment in 2019 and through 2023. Over the five-year period from 2019 to 2023, the NGD segment is expected to invest \$820 to \$910 million in capital expenditures to support system reliability, customer growth, and operate effective technology for the business. In 2019, NW Natural anticipates several significant projects for the NGD segment, including completing the replacement of end of life equipment at the Mist gas storage facility, and renovating several resource facilities across NW Natural's service territory. Projects in 2019 also include leasehold improvements and technology for the new headquarters in Portland, Oregon and the completion of the North Mist gas storage expansion project.

NW Holdings' wholly-owned water subsidiaries expect to invest in their facilities to support growth and upgrade their systems with \$30 to \$40 million expected to be invested from 2019 to 2023. NW Holdings expects an immaterial amount of non-NGD capital investments for Gill Ranch and other activities in 2019 and through 2023.

Investments in our infrastructure during and after 2019 beyond the amounts provided below will depend largely on additional regulations, growth, and expansion opportunities.

For 2019, capital expenditures are estimated, on an accrual basis, to be as follows:

<i>In millions</i>	One-Year Outlook 2019	
	Low	High
NGD		
Core capital expenditures	\$ 150	\$ 165
Significant projects:		
Growth & reliability	15	25
Facilities & technology	42	57
North Mist expansion	18	18
Total projects	75	100
Total NGD	225	265
Other	5	5
Total	\$ 230	\$ 270

Required funds for the investments are expected to be internally generated and/or financed with long-term debt or equity, as appropriate.

Financing Activities

Financing activity highlights include:

<i>NW Holdings</i>			
<i>In millions</i>	2018	2017	2016
Total cash provided by (used in) financing activities	\$ 57.8	\$ 7.4	\$ (86.2)
Change in short-term debt	163.3	0.9	(216.7)
Change in long-term debt	(47.0)	60.0	125.0
Change in common stock issued, net	—	—	52.8
<i>NW Natural</i>			
<i>In millions</i>	2018	2017	2016
Total cash provided by (used in) financing activities	\$ 69.8	\$ 7.4	\$ (86.2)
Change in short-term debt	163.3	0.9	(216.7)
Change in long-term debt	(47.0)	60.0	125.0
Change in common stock issued, net	—	—	52.8

NW HOLDINGS

2018 COMPARED TO 2017. The \$50.4 million increase in cash provided by financing activities was primarily due to \$162.4 million higher short-term debt issuances, partially offset by \$107.0 million lower net proceeds from long-term debt activity in 2018.

2017 COMPARED TO 2016. The \$93.6 million increase in cash provided by financing activities was primarily due to \$217.6 million lower repayments of short-term debt compared to the prior period, partially offset by \$65.0 million lower net proceeds from long-term debt activity in 2017 and \$52.8 million of common stock proceeds in 2016.

NW NATURAL

2018 COMPARED TO 2017. The \$62.4 million increase in cash provided by financing activities was primarily due to increases in short term debt issuances of \$162.4 million, partially offset by \$107.0 million lower net proceeds from long-term debt activity in 2018. NW Natural cash provided by financing activities was \$12.0 million higher in comparison to NW Holdings primarily due to the payment of the November 15, 2018 dividend to NW Holdings shareholders using NW Holdings funds.

2017 COMPARED TO 2016. The \$93.6 million increase in cash provided by financing activities was primarily due to \$217.6 million lower repayments of short-term debt compared to the prior period, partially offset by \$65 million lower net proceeds from long-term debt activity in 2017 and \$52.8 million of common stock proceeds in 2016.

Pension Cost and Funding Status of Qualified Retirement Plans

NW Natural's pension costs are determined in accordance with accounting standards for compensation and retirement benefits. See "Application of Critical Accounting Policies and Estimates – *Accounting for Pensions and Postretirement Benefits*" below. Pension expense for NW Natural's qualified defined benefit plan, which is allocated between operations and maintenance expenses, capital expenditures, and through October 31, 2018, the deferred regulatory balancing account, totaled \$20.7 million in 2018, an increase of \$2.6 million from 2017. The fair market value of pension assets in this plan decreased to \$257.8 million at December 31, 2018 from \$287.9 million at December 31, 2017. The decrease was due to a loss on plan assets of \$25.9 million and benefit payments of \$19.7 million, offset by \$15.5 million in employer contributions.

Contributions made to NW Natural's company-sponsored qualified defined benefit pension plan are based on actuarial assumptions and estimates, tax regulations, and funding requirements under federal law. The qualified defined benefit pension plan was underfunded by \$162.4 million at December 31, 2018. NW Natural plans to make contributions during 2019 of \$11.0 million. See Note 9 for further pension disclosures.

Contingent Liabilities

Loss contingencies are recorded as liabilities when it is probable that a liability has been incurred and the amount of the loss is reasonably estimable in accordance with accounting standards for contingencies. See "Application of Critical Accounting Policies and Estimates" below. At December 31, 2018, NW Natural's total estimated liability related to environmental sites was \$128.7 million. See Note 17 and "Results of Operations—Regulatory Matters—Rate Mechanisms—*Environmental Costs*" above.

NW Holdings is not currently party to any direct claims or litigation, though in the future it may be subject to claims and litigation arising in the ordinary course of business.

New Accounting Pronouncements

For a description of recent accounting pronouncements that may have an impact on our financial condition, results of operations, or cash flows, see Note 2.

APPLICATION OF CRITICAL ACCOUNTING POLICIES AND ESTIMATES

In preparing financial statements in accordance with U.S. GAAP, management exercises judgment in the selection and application of accounting principles, including making estimates and assumptions that affect reported amounts of assets, liabilities, revenues, expenses, and related disclosures in the financial statements. Management considers critical accounting policies to be those which are most important to the representation of financial condition and results of operations and which require management's most difficult and subjective or complex judgments, including accounting estimates that could result in materially different amounts if reported under different conditions or used different assumptions. Our most critical estimates and judgments for both NW Holdings and NW Natural include accounting for:

- regulatory accounting;
- revenue recognition;
- derivative instruments and hedging activities;
- pensions and postretirement benefits;
- income taxes;
- environmental contingencies; and
- impairment of long-lived assets and goodwill.

Management has discussed its current estimates and judgments used in the application of critical accounting policies with the Audit Committees of the Boards of NW Holdings and NW Natural. Within the context of critical accounting policies and estimates, management is not aware of any reasonably likely events or circumstances that would result in materially different amounts being reported.

Regulatory Accounting

The NGD segment is regulated by the OPUC and WUTC, which establish the rates and rules governing services provided to customers, and, to a certain extent, set forth special accounting treatment for certain regulatory transactions. In general, the same accounting principles as non-regulated companies reporting under U.S. GAAP are used. However, authoritative guidance for regulated operations (regulatory accounting) requires different accounting treatment for regulated companies to show the effects of such regulation. For example, NW Natural accounts for the cost of gas using a PGA deferral and cost recovery mechanism, which is submitted for approval annually to the OPUC and WUTC. See "Results of Operations—Regulatory Matters—Rate Mechanisms—*Purchased Gas Adjustment*" above. There are other expenses and revenues that the OPUC or WUTC may require NW Natural to defer for recovery or refund in future periods. Regulatory accounting requires NW Natural to account for these types of deferred expenses (or deferred revenues) as regulatory assets (or regulatory liabilities) on the balance sheet. When the recovery of these regulatory assets from, or refund of regulatory liabilities to, customers is approved, NW Natural recognizes the expense or revenue on the income statement at the same time the adjustment to amounts included in rates charged to customers.

The conditions that must be satisfied to adopt the accounting policies and practices of regulatory accounting include:

- an independent regulator sets rates;
- the regulator sets the rates to cover specific costs of delivering service; and
- the service territory lacks competitive pressures to reduce rates below the rates set by the regulator.

Because NW Natural's NGD operations satisfy all three conditions, NW Natural continues to apply regulatory accounting to NGD operations. Future accounting changes, regulatory changes, or changes in the competitive environment could require NW Natural to discontinue the application of regulatory accounting for some or all of our regulated businesses. This would require the write-off of those regulatory assets and liabilities that would no longer be probable of recovery from or refund to customers.

Based on current accounting and regulatory competitive conditions, NW Natural believes it is reasonable to expect continued application of regulatory accounting for NGD activities. Further, it is reasonable to expect the recovery or refund of NW Natural's regulatory assets and liabilities at December 31, 2018 through future customer rates. If it is determined that all or a portion of these regulatory assets or liabilities no longer meet the criteria for continued application of regulatory accounting, then NW Natural would be required to write-off the net unrecoverable balances against earnings in the period such determination is made. The net balance in regulatory asset and liability accounts was a net liability of \$245.3 million and a net liability of \$217.7 million as of December 31, 2018 and 2017, respectively. See Note 2 for more detail on regulatory balances.

Revenue Recognition

Revenues, which are derived primarily from the sale, transportation, and storage of natural gas, are recognized upon the delivery of gas commodity or services rendered to customers.

Accrued Unbilled Revenue

For a description of the policy regarding accrued unbilled revenue, most of which relates to the NGD business at NW Natural, see Note 2. The following table presents changes in key metrics if the estimated percentage of unbilled volume at December 31 was adjusted up or down by 1%:

<i>In millions</i>	2018	
	Up 1%	Down 1%
Unbilled revenue increase (decrease) ⁽¹⁾	\$ 0.8	\$ (0.8)
Margin increase (decrease) ⁽¹⁾	0.1	(0.1)
Net income before tax increase (decrease) ⁽¹⁾	0.1	(0.1)

⁽¹⁾ Includes impact of regulatory mechanisms including decoupling mechanism and excludes the impact of unbilled revenue from water services.

Derivative Instruments and Hedging Activities

NW Natural's gas acquisition and hedging policies set forth guidelines for using financial derivative instruments to support prudent risk management strategies. These policies specifically prohibit the use of derivatives for trading or speculative purposes. Financial derivative contracts are

utilized to hedge a portion of natural gas sale requirements. These contracts include swaps, options, and combinations of option contracts. NW Natural primarily uses these derivative financial instruments to manage commodity price variability. A small portion of NW Natural's derivative hedging strategy involves foreign currency exchange contracts.

Derivative instruments are recorded on the balance sheet at fair value. If certain regulatory conditions are met, then the derivative instrument fair value is recorded together with an offsetting entry to a regulatory asset or liability account pursuant to regulatory accounting, and no unrealized gain or loss is recognized in current income or loss. See "Regulatory Accounting" above for additional information. The gain or loss from the fair value of a derivative instrument subject to regulatory deferral is included in the recovery from, or refund to, NGD business customers in future periods. If a derivative contract is not subject to regulatory deferral, then the accounting treatment for unrealized gains and losses is recorded in accordance with accounting standards for derivatives and hedging which is either in current income or loss or in accumulated other comprehensive income or loss (AOCI or AOCL). Derivative contracts outstanding at December 31, 2018, 2017 and 2016 were measured at fair value using models or other market accepted valuation methodologies derived from observable market data. Estimates of fair value may change significantly from period-to-period depending on market conditions and prices. These changes may have an impact on results of operations, but the impact would largely be mitigated due to the majority of derivative activities being subject to regulatory deferral treatment. For more information on derivative activity and associated regulatory treatment, see Note 2 and Note 15.

The following table summarizes the amount of losses realized from commodity price transactions for the last three years:

<i>In millions</i>	2018	2017	2016
NGD business net loss on:			
Commodity Swaps	\$ 7.4	\$ 7.8	\$ 26.9

Realized losses from commodity hedges shown above were recorded as increases to cost of gas and were, or will be, included in annual PGA rates.

Pensions and Postretirement Benefits

NW Natural maintains a qualified non-contributory defined benefit pension plan, non-qualified supplemental pension plans for eligible executive officers and certain key employees, and other postretirement employee benefit plans covering certain non-union employees. NW Natural also has a qualified defined contribution plan (Retirement K Savings Plan) for all eligible employees. Only the qualified defined benefit pension plan and Retirement K Savings Plan have plan assets, which are held in qualified trusts to fund the respective retirement benefits. The qualified defined benefit retirement plan for union and non-union employees was closed to new participants several years ago. Non-union and union employees hired or re-hired after December 31, 2006 and 2009, respectively, and employees of certain NW Holdings subsidiaries are provided an

enhanced Retirement K Savings Plan benefit. The postretirement Welfare Benefit Plan for non-union employees was also closed to new participants several years ago.

Net periodic pension and postretirement benefit costs (retirement benefit costs) and projected benefit obligations (benefit obligations) are determined using a number of key assumptions including discount rates, rate of compensation increases, retirement ages, mortality rates and an expected long-term return on plan assets. See Note 9.

Accounting standards also require balance sheet recognition of unamortized actuarial gains and losses and prior service costs in AOCI or AOCL, net of tax. However, the retirement benefit costs related to qualified defined benefit pension and postretirement benefit plans are generally recovered in rates charged to NGD customers, which are set based on accounting standards for pensions and postretirement benefit expenses. As such, NW Natural received approval from the OPUC to recognize the unamortized actuarial gains and losses and prior service costs as a regulatory asset or regulatory liability based on expected rate recovery, rather than including it as AOCI or AOCL under common equity. See "Regulatory Accounting" above and Note 2, "Industry Regulation".

In 2011, NW Natural received regulatory approval from the OPUC and began deferring a portion of pension expense above or below the amount set in rates to a regulatory balancing account on the balance sheet. On October 26, 2018, the OPUC issued an order to freeze NW Natural's pension balancing account as of October 31, 2018. The order directed NW Natural and the other parties to the rate case to engage in further regulatory proceedings extending the general rate case docket to resolve open issues with respect to the recovery of the pension balancing account. On February 4, 2019, NW Natural and the other parties to the rate case filed a joint stipulation with the OPUC outlining a resolution to the issue. See "Regulatory Matters-Regulatory Proceeding Updates-Oregon General Rate Case" for more information. At December 31, 2018, the cumulative amount deferred for future pension cost recovery was \$74.2 million, including accrued interest. The regulatory balancing account includes the recognition of accrued interest on the account balance at NW Natural's authorized rate of return, with the equity portion of this interest deferred until amounts are collected in rates.

A number of factors, as discussed above, are considered in developing pension and postretirement benefit assumptions. For the December 31, 2018 measurement date, NW Natural reviewed and updated:

- the weighted-average discount rate assumptions for pensions increased from 3.52% for 2017 to 4.20% for 2018, and our weighted-average discount rate assumptions for other postretirement benefits increased from 3.44% for 2017 to 4.13% for 2018. The new rate assumptions were determined for each plan based on a matching of benchmark interest rates to the estimated cash flows, which reflect the timing and amount of future benefit payments. Benchmark interest rates are drawn from the FTSE Above Median Curve, which consists of high quality bonds rated AA- or higher by S&P or Aa3 or higher by Moody's;

- the expected annual rate of future compensation increases, which was updated to a range of 3.25% to 3.5% at December 31, 2018;
- the expected long-term return on qualified defined benefit plan assets, which remained unchanged at a rate of 7.50%;
- the mortality rate assumptions were updated from RP-2006 mortality tables for employees and healthy annuitants with a fully generational projection using scale MP-2017 to RP-2014 mortality tables using scale MP-2018, which contributed to the decrease of our projected benefit obligation; and
- other key assumptions, which were based on actual plan experience and actuarial recommendations.

At December 31, 2018, the net pension liability (benefit obligations less market value of plan assets) for NW Natural's qualified defined benefit plan increased \$0.7 million compared to 2017. The increase in the net pension liability is primarily due to the \$30.1 million decrease in plan assets, partially offset by a \$29.5 million decrease in the pension benefit obligation. The liability for non-qualified plans decreased \$1.3 million, and the liability for other postretirement benefits decreased \$0.8 million in 2018.

The expected long-term rate of return on plan assets is determined by averaging the expected earnings for the target asset portfolio. In developing expected return, historical actual performance and long-term return projections are analyzed, which gives consideration to the current asset mix and target asset allocation.

NW Natural believes its pension assumptions are appropriate based on plan design and an assessment of market conditions. The following shows the sensitivity of retirement benefit costs and benefit obligations to changes in certain actuarial assumptions:

<i>Dollars in millions</i>	Change in Assumption	Impact on 2018 Retirement Benefit Costs	Impact on Retirement Benefit Obligations at Dec. 31, 2018
Discount rate:	(0.25)%		
Qualified defined benefit plans		\$ 1.5	\$ 13.4
Non-qualified plans		0.1	0.8
Other postretirement benefits		—	0.8
Expected long-term return on plan assets:	(0.25)%		
Qualified defined benefit plans		0.7	N/A

In July 2012, President Obama signed MAP-21 into law. This legislation changed several provisions affecting pension plans, including temporary funding relief and Pension Benefit Guaranty Corporation (PBGC) premium increases, which reduces the level of minimum required contributions in the near-term but generally increases contributions in the long-run as well as increasing the operational costs of running a pension plan. Prior to MAP-21, interest rates based on a 24-month average yield of investment grade corporate bonds (also referred to as

"segment rate") were used to calculate minimum contribution requirements. MAP-21 established a new minimum and maximum corridor for segment rates based on a 25-year average of bond yields, which resulted in lower minimum contributions requirements than those under previous regulations. In August 2014, HATFA was signed and extended funding relief for an additional five years.

Income Taxes

Valuation Allowances

Deferred tax assets are recognized to the extent that these assets are believed to be more likely than not to be realized. In making such a determination, available positive and negative evidence is considered, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. NW Holdings and NW Natural have determined that all recorded deferred tax assets are more likely than not to be realized as of December 31, 2018. See Note 10.

Uncertain Tax Benefits

The calculation of tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in the jurisdictions in which we operate. A tax benefit from a material uncertain tax position will only be recognized when it is more likely than not that the position, or some portion thereof, will be sustained upon examination, including resolution of any related appeals or litigation processes, on the basis of the technical merits. NW Holdings and NW Natural participate in the Compliance Assurance Process (CAP) with the Internal Revenue Service (IRS). Under the CAP program companies work with the IRS to identify and resolve material tax matters before the federal income tax return is filed each year. No reserves for uncertain tax benefits were recorded during 2018, 2017, or 2016. See Note 10.

Tax Legislation

When significant proposed or enacted changes in income tax rules occur we consider whether there may be a material impact to our financial position, results of operations, cash flows, or whether the changes could materially affect existing assumptions used in making estimates of tax related balances.

On December 22, 2017, H.R.1 - An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018, also known as the Tax Cuts and Jobs Act (TCJA), was enacted. The TCJA lowers the U.S. federal corporate income tax rate to 21% from the existing maximum rate of 35%, effective for our tax year beginning January 1, 2018. The TCJA includes specific provisions related to regulated public utilities that generally provide for the continued deductibility of interest expense and the elimination of bonus depreciation. Certain rate normalization requirements for accelerated cost recovery benefits related to regulated plant balances also continue. See Note 10 for more information on how we are impacted by the TCJA.

The reduced U.S. corporate income tax rate had a material impact on our financial statements in 2017. As a result of the reduction of the U.S. corporate income tax rate to 21%, U.S. GAAP requires deferred tax assets and liabilities be

revalued as of the date of enactment, with resulting tax effects accounted for in the reporting period of enactment. We recorded a net revaluation of deferred tax asset and liability balances of \$196.4 million as of December 31, 2017, utilizing the reduced federal rate of 21% expected to apply when these temporary differences are realized or settled, based upon balances in existence at the date of enactment. This revaluation had no impact on our 2017 cash flows.

With respect to other tax legislation, the final tangible property regulations applicable to all taxpayers were issued on September 13, 2013 and were generally effective for taxable years beginning on or after January 1, 2014. In addition, procedural guidance related to the regulations was issued under which taxpayers may make accounting method changes to comply with the regulations. We have evaluated the regulations and do not anticipate any material impact. However, unit-of-property guidance applicable to natural gas distribution networks has not yet been issued and is expected in the near future. We will further evaluate the effect of these regulations after this guidance is issued, but believe the current method is materially consistent with the new regulations and do not expect this additional guidance to have a material effect on our financial statements.

Regulatory Matters

Regulatory tax assets and liabilities are recorded to the extent it is probable they will be recoverable from, or refunded to, customers in the future. At December 31, 2018 and 2017, NW Natural had net regulatory income tax assets of \$21.4 million and \$22.2 million, respectively, representing future rate recovery of deferred tax liabilities resulting from differences in NGD plant financial statement and tax bases and NGD plant removal costs. These regulatory assets are currently being recovered through customer rates. In 2017, the regulatory asset balance, and its associated deferred tax liability, were both reduced by \$17.4 million as a result of the TCJA revaluation to reflect the lower corporate income tax rate. At December 31, 2018 and 2017, regulatory income tax assets of \$2.3 million and \$0.9 million, respectively, were recorded by NW Natural, representing probable future rate recovery of deferred tax liabilities resulting from the equity portion of AFUDC. In 2017, the regulatory asset balance, and its associated deferred tax liability, were both reduced by \$0.8 million as a result of the TCJA revaluation to reflect the lower corporate income tax rate.

On December 29, 2017, NW Natural filed applications with the OPUC and WUTC seeking authorization to defer the overall net benefits of NGD resulting from the TCJA. On the same day, Staff of the OPUC filed an application seeking deferral of changes in NW Natural's federal tax obligations resulting from the TCJA. On January 8, 2018, the WUTC issued a statement acknowledging receipt of NW Natural's application and indicating their intention to incorporate the impact into future rate case proceedings.

At December 31, 2018 and 2017, regulatory liability balances, representing the estimated net benefit to NGD customers resulting from the change in deferred taxes as a result of the TCJA, of \$217.1 million and \$213.3 million, respectively, were recorded by NW Natural. These balances include a gross up for income taxes of \$57.5 and \$56.5 million, respectively.

The TCJA includes specific guidance for determining the shortest time period over which the portion of this regulatory liability resulting from accelerated cost recovery of NGD plant may accrue to the benefit of customers to avoid incurring federal normalization penalties. However, it is anticipated that until such time that customers receive the direct benefit of this regulatory liability, the balance, net of the additional gross up for income taxes, will continue to provide an indirect benefit to customers by reducing the NGD rate base which determines customer rates for service. It is not possible at this time to determine when the final resolution of these regulatory proceedings will occur, and as result, this regulatory liability is classified as non-current. On February 4, 2019, NW Natural and the parties to the 2018 Oregon rate case filed a joint stipulation addressing the return of net tax benefits to customers. See "Regulatory Matters-Regulatory Proceeding Updates-Oregon General Rate Case" for more information.

NGD rates in effect for Oregon through October 31, 2018 and for Washington through December 31, 2018 included an allowance to provide for the recovery of the anticipated provision for income taxes incurred as a result of providing regulated services. The provision for income taxes during these periods included an allowance for federal income taxes determined by utilizing the pre-TCJA federal corporate income tax rate of 35 percent. NW Natural recorded an additional regulatory liability representing the deferral of NGD's net benefit from a lower provision for income taxes due to the newly enacted 21 percent federal corporate income tax rate, including a gross up for income taxes. As of December 31, 2018, a regulatory liability of \$8.2 million, including accrued interest, was recorded to reflect this revenue deferral.

Environmental Contingencies

Environmental liabilities are accounted for in accordance with accounting standards under the loss contingency guidance when it is probable that a liability has been incurred and the amount of the loss is reasonably estimable. Amounts recorded for environmental contingencies take numerous factors into consideration, including, among other variables, changes in enacted laws, regulatory orders, estimated remediation costs, interest rates, insurance proceeds, participation by other parties, timing of payments, and the input of legal counsel and third-party experts. Accordingly, changes in any of these variables or other factual circumstances could have a material impact on the amounts recorded for our environmental liabilities. For a complete discussion of environmental accounting policies refer to Note 2. For a discussion of current environmental sites and liabilities refer to Note 17. In addition, for information regarding the regulatory treatment of these costs and NW Natural's regulatory recovery mechanism, see "Results of Operations—Regulatory Matters—Rate Mechanisms—*Environmental Costs*" above.

Impairment of Long-Lived Assets and Goodwill

Long-lived assets

We review the carrying value of long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets might not be recoverable. Factors that would necessitate an impairment assessment of long-lived assets include a significant adverse change in the extent or

manner in which the asset is used, a significant adverse change in legal factors or business climate that could affect the value of the asset, or a significant decline in the observable market value or expected future cash flows of the asset, among others.

When such factors are present, we assess the recoverability by determining whether the carrying value of the asset will be recovered through expected future cash flows. An asset is determined to be impaired when the carrying value of the asset exceeds the expected undiscounted future cash flows from the use and eventual disposition of the asset. If an impairment is indicated, we record an impairment loss for the difference between the carrying value and the fair value of the long-lived assets. Fair value is estimated using appropriate valuation methodologies, which may include an estimate of discounted cash flows.

In the fourth quarter of 2017, we recognized a non-cash pre-tax impairment of long-lived assets at the Gill Ranch Facility of \$192.5 million. We determined circumstances existed that indicated the carrying value of the assets may not be recoverable. Those circumstances included the completion of a comprehensive strategic review process that evaluated various alternatives including a potential sale, as well as contracting for available storage at lower than anticipated values for the coming storage year. Given these considerations, management was required to re-evaluate the estimated cash flows from our interests in the Gill Ranch Facility, and determined that those estimated cash flows were no longer sufficient to cover the carrying value of the assets.

We used the income approach to estimate fair value, using the estimated future net cash flows. We also compared the results of the income approach to our own recent sale experience and recent market comparable transactions in order to estimate fair value. Many factors and assumptions impact the net cash flows used. The most significant and uncertain estimates included our forecast of gas storage pricing, our ability to successfully identify and contract with higher-value customers in and/or near the northern California market that Gill Ranch serves, and exploring the possibility of providing energy storage services such as compressed gas energy storage (CGES). After completing the strategic evaluation, which included a potential sale in the fourth quarter of 2017, we lowered our views of a near-term market recovery and decreased the likelihood associated with contracting with higher-value customers. These changes were the most significant estimates that caused our cash flow projections to decrease to a point where they were no longer sufficient to cover the carrying value of the asset.

On June 20, 2018, NWN Gas Storage, NW Holdings' wholly-owned subsidiary, entered into a Purchase and Sale Agreement that provides for the sale by NWN Gas Storage of all of the membership interests in Gill Ranch. As a result of our strategic shift away from California gas storage operations and the significance of Gill Ranch's financial results in 2017, we concluded that the pending sale of Gill Ranch qualifies as assets and liabilities held for sale and discontinued operations. As such, the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and discontinued operations

liabilities, respectively, and, the results of Gill Ranch are presented separately from the results of continuing operations, net of tax, as discontinued operations for the consolidated results of NW Holdings in all periods presented. The expenses included in the results of discontinued operations within the consolidated results of NW Holdings are the direct operating expenses incurred by Gill Ranch that may be reasonably segregated from the costs of our continuing operations. See "Results of Operations - *Pending Sale of Gill Ranch Storage*" above, Note 4, and Note 18 for additional information.

Goodwill

In a business combination, goodwill is initially measured as any excess of the acquisition-date fair value of the consideration transferred over the acquisition-date fair value of the net identifiable assets acquired.

The carrying value of goodwill is reviewed annually during the fourth quarter using balances as of October 1, or whenever events or changes in circumstance indicate that such carrying values may not be recoverable.

NW Holdings and NW Natural early-adopted ASU 2017-04, "Simplifying the Test for Goodwill Impairment" in the third quarter of 2018. The ASU removes Step 2 from the goodwill impairment test and under the amended guidance an entity should perform its annual goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount in which the carrying amounts exceed the fair value of the reporting unit. In accordance with the updated guidance per ASU 2017-04, NW Holdings' and NW Natural's policy for goodwill assessments begins with a qualitative analysis in which events and circumstances are evaluated, including macroeconomic conditions, industry and market conditions, regulatory environments, and the overall financial performance of the reporting unit. If the qualitative assessment indicates that the carrying value may be at risk of recoverability, a quantitative evaluation is performed to measure the carrying value against the fair value of the reporting unit. This evaluation may involve the assessment of future cash flows and other subjective factors for which uncertainty exists and could impact the estimation of future cash flows. These factors include, but are not limited to, the amount and timing of future cash flows, future growth rates, and the discount rate. Unforeseen events and changes in circumstances or market conditions could adversely affect these estimates, which could result in an impairment charge. A qualitative assessment was performed during the fourth quarter of 2018 which indicated a quantitative assessment was not required; thus, no goodwill impairment was recorded. See Note 2 and Note 14 for additional information.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

NW Holdings and NW Natural are exposed to various forms of market risk including commodity supply risk, commodity price risk, interest rate risk, foreign currency risk, credit risk and weather risk. The following describes NW Holdings' and NW Natural's exposure to these risks, as applicable.

Commodity Supply Risk

NW Natural enters into spot, short-term, and long-term natural gas supply contracts, along with associated pipeline transportation contracts, to manage commodity supply risk. Historically, NW Natural has arranged for physical delivery of an adequate supply of gas, including gas in Mist storage and off-system storage facilities, to meet expected requirements of core NGD customers. NW Natural's long-term gas supply contracts are primarily index-based and subject to monthly re-pricing, a strategy that is intended to substantially mitigate credit exposure to physical gas counterparties. Absolute notional amounts under physical gas contracts related to open positions on derivative instruments were 472.3 million therms and 520.3 million therms as of December 31, 2018 and 2017, respectively.

Commodity Price Risk

Natural gas commodity prices are subject to market fluctuations due to unpredictable factors including weather, pipeline transportation congestion, drilling technologies, market speculation, and other factors that affect supply and demand. Commodity price risk is managed with financial swaps and physical gas reserves from a long-term investment in working interests in gas leases operated by Jonah Energy. These financial hedge contracts and gas reserves volumes are generally included in NW Natural's annual PGA filing for recovery, subject to a regulatory prudence review. Notional amounts under financial derivative contracts were \$77.7 million and \$108.1 million as of December 31, 2018 and 2017, respectively. The fair value of financial swaps as of December 31, 2018 was an unrealized loss of \$7.8 million with future cash outflows of \$2.8 million in 2019, \$2.5 million in 2020, and \$2.5 million in 2021.

Interest Rate Risk

NW Holdings and NW Natural are exposed to interest rate risk primarily associated with new debt financing needed to fund capital requirements, including future contractual obligations and maturities of long-term and short-term debt. Interest rate risk is primarily managed through the issuance of fixed-rate debt with varying maturities. NW Holdings and NW Natural may also enter into financial derivative instruments, including interest rate swaps, options and other hedging instruments, to manage and mitigate interest rate exposure. NW Holdings and NW Natural did not have any interest rate swaps outstanding as of December 31, 2018 or 2017.

Foreign Currency Risk

The costs of certain pipeline and off-system storage services purchased from Canadian suppliers are subject to changes in the value of the Canadian currency in relation to the U.S. currency. Foreign currency forward contracts are used to hedge against fluctuations in exchange rates for NW

Natural's commodity-related demand and reservation charges paid in Canadian dollars. Notional amounts under foreign currency forward contracts were \$6.9 million and \$7.7 million as of December 31, 2018 and 2017, respectively. If all of the foreign currency forward contracts had been settled on December 31, 2018, a loss of \$0.3 million would have been realized. See Note 15.

Credit Risk

Credit Exposure to Natural Gas Suppliers

Certain gas suppliers have either relatively low credit ratings or are not rated by major credit rating agencies. To manage this supply risk, NW Natural purchases gas from a number of different suppliers at liquid exchange points. NW Natural evaluates and monitors suppliers' creditworthiness and maintains the ability to require additional financial assurances, including deposits, letters of credit, or surety bonds, in case a supplier defaults. In the event of a supplier's failure to deliver contracted volumes of gas, the NGD business would need to replace those volumes at prevailing market prices, which may be higher or lower than the original transaction prices. NW Natural expects these costs would be subject to its PGA sharing mechanism discussed above. Since most of NW Natural's commodity supply contracts are priced at the daily or monthly market index price tied to liquid exchange points, and NW Natural has adequate storage flexibility, NW Natural believes it is unlikely a supplier default would have a material adverse effect on its financial condition or results of operations.

Credit Exposure to Financial Derivative Counterparties

Based on estimated fair value at December 31, 2018, NW Natural's overall credit exposure relating to commodity contracts is considered immaterial as it reflects amounts owed to financial derivative counterparties (see table below). However, changes in natural gas prices could result in counterparties owing NW Natural money. Therefore, NW Natural's financial derivatives policy requires counterparties to have at least an investment-grade credit rating at the time the derivative instrument is entered into and specific limits on the contract amount and duration based on each counterparty's credit rating. Due to potential changes in market conditions and credit concerns, NW Natural continues to enforce strong credit requirements. NW Natural actively monitors and manages derivative credit exposure and places counterparties on hold for trading purposes or requires cash collateral, letters of credit, or guarantees as circumstances warrant.

The following table summarizes NW Natural's overall financial swap and option credit exposure, based on estimated fair value, and the corresponding counterparty credit ratings. The table uses credit ratings from S&P and Moody's, reflecting the higher of the S&P or Moody's rating or a middle rating if the entity is split-rated with more than one rating level difference:

<i>In millions</i>	Financial Derivative Position by Credit Rating Unrealized Fair Value Gain (Loss)	
	2018	2017
AAA/Aaa	\$ —	\$ —
AA/Aa	\$ (6.3)	\$ (9.0)
A/A	(1.5)	(13.3)
BBB/Baa	—	—
Total	<u>\$ (7.8)</u>	<u>\$ (22.3)</u>

In most cases, NW Natural also mitigates the credit risk of financial derivatives by having master netting arrangements with counterparties which provide for making or receiving net cash settlements. Generally, transactions of the same type in the same currency that have settlement on the same day with a single counterparty are netted and a single payment is delivered or received depending on which party is due funds.

Additionally, NW Natural has master contracts in place with each derivative counterparty that include provisions for posting or calling for collateral. Generally, NW Natural can obtain cash or marketable securities as collateral with one day's notice. Various collateral management strategies are used to reduce liquidity risk. The collateral provisions vary by counterparty but are not expected to result in the significant posting of collateral, if any. NW Natural has performed stress tests on the portfolio and concluded the liquidity risk from collateral calls is not material. Derivative credit exposure is primarily with investment grade counterparties rated AA-/Aa3 or higher. Contracts are diversified across counterparties to reduce credit and liquidity risk.

At December 31, 2018, financial derivative credit risk on a volumetric basis was geographically concentrated 33% in the United States and 67% in Canada, based on counterparties' location. At December 31, 2017, financial derivative credit risk on a volumetric basis was geographically concentrated 36% in the United States and 64% in Canada with our counterparties.

Credit Exposure to Insurance Companies

Credit exposure to insurance companies for loss or damage claims could be material. NW Holdings and NW Natural regularly monitor the financial condition of insurance companies who provide general liability insurance policy coverage to NW Holdings, NW Natural, their predecessors, and their subsidiaries.

Weather Risk

NW Natural has a weather normalization mechanism in Oregon; however, it is exposed to weather risk primarily from NGD business operations. A large percentage of NGD margin is volume driven, and current rates are based on an assumption of average weather. NW Natural's weather normalization mechanism in Oregon is for residential and

commercial customers, which is intended to stabilize the recovery of NGD business fixed costs and reduce fluctuations in customers' bills due to colder or warmer than average weather. Customers in Oregon are allowed to opt out of the weather normalization mechanism. As of December 31, 2018, approximately 8% of Oregon customers had opted out. In addition to the Oregon customers opting out, Washington residential and commercial customers account for approximately 11% of our total customer base and are not covered by weather normalization. The combination of Oregon and Washington customers not covered by a weather normalization mechanism is 19% of all residential and commercial customers. See "Results of Operations—Regulatory Matters—Rate Mechanisms—WARM" above.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Supplemental Schedules Omitted

All other schedules are omitted because of the absence of the conditions under which they are required or because the required information is included elsewhere in the financial statements.

NW HOLDINGS MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

NW Holdings management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934, as amended. NW Holdings' internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America (GAAP). NW Holdings' internal control over financial reporting includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions involving company assets;
- (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with GAAP, and that receipts and expenditures are being made only in accordance with authorizations of management and the NW Holdings Board of Directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of the unauthorized acquisition, use, or disposition of NW Holdings' assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements or fraud. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

NW Holdings management assessed the effectiveness of NW Holdings' internal control over financial reporting as of December 31, 2018. In making this assessment, NW Holdings management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework (2013)*.

Based on NW Holdings management's assessment and those criteria, NW Holdings management has concluded that it maintained effective internal control over financial reporting as of December 31, 2018.

The effectiveness of internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears in this annual report.

/s/ David H. Anderson

David H. Anderson
President and Chief Executive Officer

/s/ Frank H. Burkhartsmeier

Frank H. Burkhartsmeier
Senior Vice President and Chief Financial Officer

March 1, 2019

NW NATURAL MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

NW Natural management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934, as amended. NW Natural's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America (GAAP). NW Natural's internal control over financial reporting includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions involving company assets;
- (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with GAAP, and that receipts and expenditures are being made only in accordance with authorizations of management and the NW Natural Board of Directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of the unauthorized acquisition, use, or disposition of NW Natural's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements or fraud. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

NW Natural management assessed the effectiveness of NW Natural's internal control over financial reporting as of December 31, 2018. In making this assessment, NW Natural management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework (2013)*.

Based on NW Natural management's assessment and those criteria, NW Natural management has concluded that it maintained effective internal control over financial reporting as of December 31, 2018.

/s/ David H. Anderson

David H. Anderson
President and Chief Executive Officer

/s/ Frank H. Burkhartsmeyer

Frank H. Burkhartsmeyer
Senior Vice President and Chief Financial Officer

March 1, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Northwest Natural Holding Company:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Northwest Natural Holding Company and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of comprehensive income (loss), of shareholders' equity, and of cash flows for each of the three years in the period ended December 31, 2018, including the related notes and financial statement schedules listed in the accompanying index (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Portland, Oregon
March 1, 2019

We have served as the Company's auditor since 1997.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholder of Northwest Natural Gas Company:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Northwest Natural Gas Company and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of comprehensive income (loss), of shareholder's equity, and of cash flows for each of the three years in the period ended December 31, 2018, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Portland, Oregon
March 1, 2019

We have served as the Company's auditor since 1997.

NORTHWEST NATURAL HOLDING COMPANY

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

<i>In thousands, except per share data</i>	Year Ended December 31,		
	2018	2017	2016
Operating revenues	\$ 706,143	\$ 755,038	\$ 668,173
Operating expenses:			
Cost of gas	255,519	324,795	260,588
Operations and maintenance	156,698	152,358	136,723
Environmental remediation	11,127	15,291	13,298
General taxes	32,172	30,639	29,243
Revenue taxes	30,082	—	—
Depreciation and amortization	85,156	81,053	77,604
Other operating expenses	3,227	—	—
Total operating expenses	573,981	604,136	517,456
Income from operations	132,162	150,902	150,717
Other income (expense), net	(3,601)	(295)	(7,151)
Interest expense, net	37,059	37,526	38,136
Income before income taxes	91,502	113,081	105,430
Income tax expense	24,191	41,008	43,011
Net income from continuing operations	67,311	72,073	62,419
Loss from discontinued operations, net of tax	(2,742)	(127,696)	(3,524)
Net income (loss)	64,569	(55,623)	58,895
Other comprehensive income (loss):			
Change in employee benefit plan liability, net of taxes of (\$166) for 2018, \$735 for 2017, and \$452 for 2016	476	(2,059)	(744)
Amortization of non-qualified employee benefit plan liability, net of taxes of (\$278) for 2018, (\$374) for 2017, and (\$624) for 2016	774	572	955
Comprehensive income (loss)	\$ 65,819	\$ (57,110)	\$ 59,106
Average common shares outstanding:			
Basic	28,803	28,669	27,647
Diluted	28,873	28,753	27,779
Earnings from continuing operations per share of common stock:			
Basic	\$ 2.34	\$ 2.51	\$ 2.26
Diluted	2.33	2.51	2.25
Loss from discontinued operations per share of common stock:			
Basic	\$ (0.10)	\$ (4.45)	\$ (0.13)
Diluted	(0.09)	(4.44)	(0.13)
Earnings (loss) per share of common stock:			
Basic	\$ 2.24	\$ (1.94)	\$ 2.13
Diluted	2.24	(1.93)	2.12

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY

CONSOLIDATED BALANCE SHEETS

<i>In thousands</i>	As of December 31,	
	2018	2017
Assets:		
Current assets:		
Cash and cash equivalents	\$ 12,633	\$ 3,472
Accounts receivable	66,970	66,236
Accrued unbilled revenue	57,827	62,381
Allowance for uncollectible accounts	(977)	(956)
Regulatory assets	41,930	45,781
Derivative instruments	9,001	1,735
Inventories	44,149	47,577
Gas reserves	16,647	15,704
Income taxes receivable	6,000	—
Other current assets	28,472	24,949
Discontinued operations - current assets	13,269	3,057
Total current assets	295,921	269,936
Non-current assets:		
Property, plant, and equipment	3,414,490	3,204,635
Less: Accumulated depreciation	993,118	960,477
Total property, plant, and equipment, net	2,421,372	2,244,158
Gas reserves	66,197	84,053
Regulatory assets	371,786	356,608
Derivative instruments	725	1,306
Other investments	63,558	66,363
Goodwill	8,954	—
Other non-current assets	14,149	6,505
Discontinued operations - non-current assets	—	10,817
Total non-current assets	2,946,741	2,769,810
Total assets	\$ 3,242,662	\$ 3,039,746

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY

CONSOLIDATED BALANCE SHEETS

<i>In thousands</i>	As of December 31,	
	2018	2017
Liabilities and equity:		
Current liabilities:		
Short-term debt	\$ 217,620	\$ 54,200
Current maturities of long-term debt	29,989	96,703
Accounts payable	115,878	111,021
Taxes accrued	11,023	18,883
Interest accrued	7,306	6,773
Regulatory liabilities	47,436	34,013
Derivative instruments	12,381	18,722
Other current liabilities	54,492	39,942
Discontinued operations - current liabilities	12,959	1,593
Total current liabilities	509,084	381,850
Long-term debt	706,247	683,184
Deferred credits and other non-current liabilities:		
Deferred tax liabilities	280,463	270,526
Regulatory liabilities	611,560	586,093
Pension and other postretirement benefit liabilities	221,886	223,333
Derivative instruments	3,025	4,649
Other non-current liabilities	147,763	135,292
Discontinued operations - non-current liabilities	—	12,043
Total deferred credits and other non-current liabilities	1,264,697	1,231,936
Commitments and contingencies (see Note 16 and Note 17)		
Equity:		
Common stock - no par value; authorized 100,000 shares; issued and outstanding 28,880 and 28,736 at December 31, 2018 and 2017, respectively	457,640	448,865
Retained earnings	312,182	302,349
Accumulated other comprehensive loss	(7,188)	(8,438)
Total equity	762,634	742,776
Total liabilities and equity	\$ 3,242,662	\$ 3,039,746

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

<i>In thousands</i>	Common Stock	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Equity
Balance at December 31, 2015	\$ 383,144	\$ 404,990	\$ (7,162)	\$ 780,972
Comprehensive income	—	58,895	211	59,106
Dividends on common stock, \$1.87 per share	—	(51,624)	—	(51,624)
Stock-based compensation	2,924	—	—	2,924
Shares issued pursuant to equity based plans	6,358	—	—	6,358
Issuance of common stock, net of issuance costs	52,761	—	—	52,761
Balance at December 31, 2016	<u>445,187</u>	<u>412,261</u>	<u>(6,951)</u>	<u>850,497</u>
Comprehensive income (loss)	—	(55,623)	(1,487)	(57,110)
Dividends on common stock, \$1.88 per share	—	(54,289)	—	(54,289)
Stock-based compensation	2,882	—	—	2,882
Shares issued pursuant to equity based plans	796	—	—	796
Balance at December 31, 2017	<u>448,865</u>	<u>302,349</u>	<u>(8,438)</u>	<u>742,776</u>
Comprehensive income	—	64,569	1,250	65,819
Dividends on common stock, \$1.89 per share	—	(54,736)	—	(54,736)
Stock-based compensation	3,020	—	—	3,020
Shares issued pursuant to equity based plans	5,175	—	—	5,175
Cash purchase of shares for business combination	(7,945)	—	—	(7,945)
Value of shares transferred for business combination	8,525	—	—	8,525
Balance at December 31, 2018	<u><u>\$ 457,640</u></u>	<u><u>\$ 312,182</u></u>	<u><u>\$ (7,188)</u></u>	<u><u>\$ 762,634</u></u>

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY

CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>In thousands</i>	Year Ended December 31,		
	2018	2017	2016
Operating activities:			
Net income (loss)	\$ 64,569	\$ (55,623)	\$ 58,895
Adjustments to reconcile net income (loss) to cash provided by operations:			
Depreciation and amortization	85,156	81,053	77,604
Regulatory amortization of gas reserves	16,684	16,353	15,525
Deferred income taxes	14,356	(52,414)	32,056
Qualified defined benefit pension plan expense	8,108	5,364	5,274
Contributions to qualified defined benefit pension plans	(15,540)	(19,430)	(14,470)
Deferred environmental expenditures, net	(14,528)	(13,716)	(10,469)
Regulatory disallowance of prior environmental cost deferrals	—	—	3,287
Amortization of environmental remediation	11,127	15,291	13,298
Regulatory revenue deferral from the TCJA	7,929	—	—
Other	1,596	2,102	2,846
Changes in assets and liabilities:			
Receivables, net	181	3,282	(6,395)
Inventories	3,207	5,600	16,565
Income and other taxes	(16,904)	6,734	9,467
Accounts payable	16,792	1,092	12,028
Interest accrued	526	807	93
Deferred gas costs	(14,395)	17,122	(10,204)
Other, net	552	(4,093)	11,727
Discontinued operations	(645)	197,180	5,020
Cash provided by operating activities	168,771	206,704	222,147
Investing activities:			
Capital expenditures	(214,636)	(213,325)	(138,357)
Other	(3,390)	(577)	2,882
Discontinued operations	573	(270)	(1,154)
Cash used in investing activities	(217,453)	(214,172)	(136,629)
Financing activities:			
Repurchases related to stock-based compensation	—	(2,034)	(1,042)
Proceeds from stock options exercised	1,546	4,819	8,404
Proceeds from common stock issued	—	—	52,760
Long-term debt issued	50,000	100,000	150,000
Long-term debt retired	(97,000)	(40,000)	(25,000)
Change in short-term debt	163,274	900	(216,735)
Cash dividend payments on common stock	(51,311)	(53,957)	(51,508)
Stock purchases related to acquisitions	(7,951)	—	—
Other	(715)	(2,309)	(3,087)
Cash provided by (used in) financing activities	57,843	7,419	(86,208)
Increase (decrease) in cash and cash equivalents	9,161	(49)	(690)
Cash and cash equivalents, beginning of period	3,472	3,521	4,211
Cash and cash equivalents, end of period	\$ 12,633	\$ 3,472	\$ 3,521
Supplemental disclosure of cash flow information:			
Interest paid, net of capitalization	\$ 35,324	\$ 34,787	\$ 36,023
Income taxes paid (refunded)	27,370	14,780	(7,157)

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

<i>In thousands</i>	Year Ended December 31,		
	2018	2017	2016
Operating revenues	\$ 705,571	\$ 755,038	\$ 667,949
Operating expenses:			
Cost of gas	255,743	325,019	260,588
Operations and maintenance	155,225	152,180	135,979
Environmental remediation	11,127	15,291	13,298
General taxes	32,086	30,602	29,222
Revenue taxes	30,082	—	—
Depreciation and amortization	84,986	81,024	77,575
Other operating expenses	3,223	—	—
Total operating expenses	572,472	604,116	516,662
Income from operations	133,099	150,922	151,287
Other income (expense), net	(3,599)	(198)	(7,041)
Interest expense, net	36,992	37,526	38,136
Income before income taxes	92,508	113,198	106,110
Income tax expense	24,459	41,478	43,275
Net income from continuing operations	68,049	71,720	62,835
Loss from discontinued operations, net of tax	(1,723)	(127,343)	(3,940)
Net income (loss)	66,326	(55,623)	58,895
Other comprehensive income (loss):			
Change in employee benefit plan liability, net of taxes of (\$166) for 2018, \$735 for 2017, and \$452 for 2016	476	(2,059)	(744)
Amortization of non-qualified employee benefit plan liability, net of taxes of (\$278) for 2018, (\$374) for 2017, and (\$624) for 2016	774	572	955
Comprehensive income (loss)	\$ 67,576	\$ (57,110)	\$ 59,106

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY

CONSOLIDATED BALANCE SHEETS

<i>In thousands</i>	As of December 31,	
	2018	2017
Assets:		
Current assets:		
Cash and cash equivalents	\$ 7,947	\$ 3,110
Accounts receivable	66,824	66,236
Accrued unbilled revenue	57,773	62,381
Receivables from affiliates	4,166	266
Allowance for uncollectible accounts	(975)	(956)
Regulatory assets	41,930	45,781
Derivative instruments	9,001	1,735
Inventories	44,126	47,577
Gas reserves	16,647	15,704
Other current assets	25,347	24,862
Discontinued operations - current assets	—	7,170
Total current assets	272,786	273,866
Non-current assets:		
Property, plant, and equipment	3,410,439	3,204,260
Less: Accumulated depreciation	992,855	960,285
Total property, plant, and equipment, net	2,417,584	2,243,975
Gas reserves	66,197	84,053
Regulatory assets	371,786	356,608
Derivative instruments	725	1,306
Other investments	49,922	52,654
Other non-current assets	13,736	6,505
Discontinued operations - non-current assets	—	24,709
Total non-current assets	2,919,950	2,769,810
Total assets	\$ 3,192,736	\$ 3,043,676

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY

CONSOLIDATED BALANCE SHEETS

<i>In thousands</i>	As of December 31,	
	2018	2017
Liabilities and equity:		
Current liabilities:		
Short-term debt	\$ 217,500	\$ 54,200
Current maturities of long-term debt	29,989	96,703
Accounts payable	114,937	110,354
Payables to affiliates	523	3,664
Taxes accrued	10,990	18,844
Interest accrued	7,273	6,773
Regulatory liabilities	47,436	34,013
Derivative instruments	12,381	18,722
Other current liabilities	53,027	39,942
Discontinued operations - current liabilities	—	2,565
Total current liabilities	494,056	385,780
Long-term debt	704,134	683,184
Deferred credits and other non-current liabilities:		
Deferred tax liabilities	294,739	287,388
Regulatory liabilities	611,560	586,093
Pension and other postretirement benefit liabilities	221,886	223,333
Derivative instruments	3,025	4,649
Other non-current liabilities	147,668	135,205
Discontinued operations - non-current liabilities	—	(4,732)
Total deferred credits and other non-current liabilities	1,278,878	1,231,936
Commitments and contingencies (see Note 16 and Note 17)		
Equity:		
Common stock	226,452	448,865
Retained earnings	496,404	302,349
Accumulated other comprehensive loss	(7,188)	(8,438)
Total equity	715,668	742,776
Total liabilities and equity	\$ 3,192,736	\$ 3,043,676

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY
CONSOLIDATED STATEMENTS OF SHAREHOLDER'S EQUITY

<i>In thousands</i>	Common Stock	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Equity
Balance at December 31, 2015	\$ 383,144	\$ 404,990	\$ (7,162)	\$ 780,972
Comprehensive income	—	58,895	211	59,106
Dividends on common stock	—	(51,624)	—	(51,624)
Stock-based compensation	2,924	—	—	2,924
Shares issued pursuant to equity based plans	6,358	—	—	6,358
Issuance of common stock, net of issuance costs	52,761	—	—	52,761
Balance at December 31, 2016	<u>445,187</u>	<u>412,261</u>	<u>(6,951)</u>	<u>850,497</u>
Comprehensive income (loss)	—	(55,623)	(1,487)	(57,110)
Dividends on common stock	—	(54,289)	—	(54,289)
Stock-based compensation	2,882	—	—	2,882
Shares issued pursuant to equity based plans	796	—	—	796
Balance at December 31, 2017	<u>448,865</u>	<u>302,349</u>	<u>(8,438)</u>	<u>742,776</u>
Comprehensive income	—	66,326	1,250	67,576
Dividends on common stock	—	(41,035)	—	(41,035)
Stock-based compensation ⁽¹⁾	2,161	—	—	2,161
Shares issued pursuant to equity based plans ⁽¹⁾	3,075	—	—	3,075
Transfer of investments to NW Holdings as of October 1, 2018	(227,649)	168,764	—	(58,885)
Balance at December 31, 2018	<u>\$ 226,452</u>	<u>\$ 496,404</u>	<u>\$ (7,188)</u>	<u>\$ 715,668</u>

⁽¹⁾ Stock-based compensation is based on stock awards of NW Natural to be issued in shares of NW Holdings.

See Notes to Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY

CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>In thousands</i>	Year Ended December 31,		
	2018	2017	2016
Operating activities:			
Net income (loss)	\$ 66,326	\$ (55,623)	\$ 58,895
Adjustments to reconcile net income (loss) to cash provided by operations:			
Depreciation and amortization	84,986	81,024	77,575
Regulatory amortization of gas reserves	16,684	16,353	15,525
Deferred income taxes	12,330	15,894	30,772
Qualified defined benefit pension plan expense	8,108	5,364	5,274
Contributions to qualified defined benefit pension plans	(15,540)	(19,430)	(14,470)
Deferred environmental expenditures, net	(14,528)	(13,716)	(10,469)
Regulatory disallowance of prior environmental cost deferrals	—	—	3,287
Amortization of environmental remediation	11,127	15,291	13,298
Regulatory revenue deferral from the TCJA	7,929	—	—
Other	883	2,003	2,745
Changes in assets and liabilities:			
Receivables, net	(3,920)	3,215	(6,319)
Inventories	3,212	5,601	16,565
Income and other taxes	(7,854)	6,730	9,467
Accounts payable	13,937	3,332	10,822
Interest accrued	500	807	93
Deferred gas costs	(14,395)	17,122	(10,204)
Other, net	539	(3,855)	12,342
Discontinued operations	3,184	126,371	7,041
Cash provided by operating activities	173,508	206,483	222,239
Investing activities:			
Capital expenditures	(214,328)	(213,325)	(138,357)
Other	(3,517)	(577)	2,882
Discontinued operations	(20,617)	(270)	(1,154)
Cash used in investing activities	(238,462)	(214,172)	(136,629)
Financing activities:			
Repurchases related to stock-based compensation	—	(2,034)	(1,042)
Proceeds from stock options exercised	1,368	4,819	8,404
Proceeds from common stock issued	—	—	52,760
Long-term debt issued	50,000	100,000	150,000
Long-term debt retired	(97,000)	(40,000)	(25,000)
Change in short-term debt	163,300	900	(216,735)
Cash dividend payments on common stock	(38,387)	(53,957)	(51,508)
Other	(1,539)	(2,309)	(3,087)
Discontinued operations	(7,951)	—	—
Cash provided by (used in) financing activities	69,791	7,419	(86,208)
Increase (decrease) in cash and cash equivalents	4,837	(270)	(598)
Cash and cash equivalents, beginning of period	3,110	3,380	3,978
Cash and cash equivalents, end of period	\$ 7,947	\$ 3,110	\$ 3,380
Supplemental disclosure of cash flow information:			
Interest paid, net of capitalization	\$ 35,305	\$ 34,787	\$ 36,023
Income taxes paid (refunded)	27,350	14,780	(7,157)

See Notes to Consolidated Financial Statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND PRINCIPLES OF CONSOLIDATION

On October 1, 2018, we completed a reorganization into a holding company structure. In this reorganization, shareholders of NW Natural (the predecessor publicly held parent company) became shareholders of NW Holdings on a one-for-one basis; maintaining the same number of shares and ownership percentage as held in NW Natural immediately prior to the reorganization. NW Natural became a wholly-owned subsidiary of NW Holdings. Additionally, certain subsidiaries of NW Natural were transferred to NW Holdings. This reorganization was accounted for as a transaction among entities under common control. As required under accounting guidance, these subsidiaries are presented in this report as discontinued operations in the consolidated results of NW Natural. See Note 18 for additional information.

The accompanying consolidated financial statements represent the respective, consolidated results and financial results of NW Holdings and NW Natural and all respective companies that each registrant directly or indirectly controls, either through majority ownership or otherwise. This is a combined report of NW Holdings and NW Natural, which includes separate consolidated financial statements for each registrant.

NW Natural's natural gas distribution activities are reported in the natural gas distribution (NGD) segment, formerly titled and reported as the utility segment. The NGD segment is NW Natural's core operating business and serves residential, commercial, and industrial customers in Oregon and southwest Washington. The NGD segment is the only reportable segment for NW Holdings and NW Natural. All other business activities, including certain gas storage activities, water businesses, and other investments and activities are aggregated and reported as other at their respective registrant.

In addition, NW Holdings has reported discontinued operations results related to the pending sale of Gill Ranch Storage, LLC (Gill Ranch).

NW Holdings' direct and indirect wholly-owned subsidiaries include:

- Northwest Natural Gas Company (NW Natural);
 - Northwest Energy Corporation (Energy Corp);
 - NWN Gas Reserves LLC (NWN Gas Reserves);
- NW Natural Energy, LLC (NWN Energy);
 - NW Natural Gas Storage, LLC (NWN Gas Storage);
 - Gill Ranch Storage, LLC (Gill Ranch), which is presented as a discontinued operation;
- NNG Financial Corporation (NNG Financial);
 - KB Pipeline Company (KB);
- NW Natural Water Company, LLC (NWN Water);
 - Falls Water Co., Inc. (Falls Water);
 - Salmon Valley Water Company;

- Cascadia Water, LLC (Cascadia);
- NW Natural Water of Oregon, LLC (NWN Water of Oregon);
- NW Natural Water of Washington, LLC (NWN Water of Washington); and
- NW Natural Water of Idaho, LLC (NWN Water of Idaho); and
 - Gem State Water Company, LLC (Gem State)

Investments in corporate joint ventures and partnerships that NW Holdings does not directly or indirectly control, and for which it is not the primary beneficiary, include NWN Financial's investment in Kelso-Beaver Pipeline and NWN Energy's investment in Trail West Holdings, LLC (TWH), which is accounted for under the equity method. NW Holdings and its direct and indirect subsidiaries are collectively referred to herein as NW Holdings, and NW Natural and its direct and indirect subsidiaries are collectively referred to herein as NW Natural. The consolidated financial statements of NW Holdings and NW Natural are presented after elimination of all intercompany balances and transactions.

During the second quarter of 2018, we moved forward with our long-term strategic plans, which include a shift away from the California gas storage business. In June 2018, NWN Gas Storage, a wholly-owned subsidiary of NW Natural at the time and now a wholly-owned subsidiary of NW Holdings, entered into a Purchase and Sale Agreement that provides for the sale of all of the membership interests in its wholly-owned subsidiary, Gill Ranch, subject to various regulatory approvals and closing conditions. We have concluded that the pending sale of Gill Ranch qualifies as assets and liabilities held for sale and discontinued operations. As such, the results of Gill Ranch have been presented as a discontinued operation for NW Holdings for all periods presented and for NW Natural up until the holding company reorganization was effective on October 1, 2018 on the consolidated statements of comprehensive income and cash flows, and the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and liabilities on the NW Holdings consolidated balance sheet. See Note 18 for additional information. Additionally, we reevaluated reportable segments and concluded that the remaining gas storage activities no longer meet the requirements to be separately reported as a segment. Interstate Storage Services is now reported in Other under NW Natural and all prior periods reflect this change. See Note 4, which provides segment information.

Notes to the consolidated financial statements reflect the activity of continuing operations for both NW Holdings and NW Natural for all periods presented, unless otherwise noted. Note 4 and Note 18 provide information regarding reportable segments and discontinued operations, respectively.

All prior period amounts have been retrospectively adjusted to reflect the change in reportable segments and the designation of Gill Ranch as a discontinued operation for NW Holdings, and the designation of subsidiaries previously owned by NW Natural that are now owned by NW Holdings

as discontinued operations for NW Natural. These reclassifications and the reorganization activities described above had no effect on the prior year's consolidated results of operations, financial condition, or cash flows.

2. SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America (U.S. GAAP) requires management to make estimates and assumptions that affect reported amounts in the consolidated financial statements and accompanying notes. Actual amounts could differ from those estimates, and changes would most likely be reported in future periods. Management believes the estimates and assumptions used are reasonable.

Industry Regulation

NW Holdings' principal business is to operate as a holding company for NW Natural, NWN Water and its other subsidiaries.

NW Natural's principal business is the distribution of natural gas, which is regulated by the OPUC and WUTC. NW Natural also has natural gas storage services, which are regulated by the FERC, and to a certain extent by the OPUC and WUTC. Additionally, certain NW Holdings' subsidiaries own water businesses, which are regulated by the OPUC, WUTC, or IPUC. Accounting records and practices of the regulated businesses conform to the requirements and uniform system of accounts prescribed by these regulatory authorities in accordance with U.S. GAAP. The businesses in which customer rates are regulated by the OPUC, WUTC, IPUC, and FERC have approved cost-based rates which are intended to allow such businesses to earn a reasonable return on invested capital.

In applying regulatory accounting principles, we capitalize or defer certain costs and revenues as regulatory assets and liabilities pursuant to orders of the OPUC, WUTC, or IPUC, which provide for the recovery of revenues or expenses from, or refunds to, utility customers in future periods, including a return or a carrying charge in certain cases.

At December 31, NW Natural deferred the following amounts as regulatory assets and liabilities:

<i>In thousands</i>	Regulatory Assets	
	2018	2017
Current:		
Unrealized loss on derivatives ⁽¹⁾	\$ 12,381	\$ 18,712
Gas costs	2,873	154
Environmental costs ⁽²⁾	5,601	6,198
Decoupling ⁽³⁾	9,140	11,227
Income taxes	2,218	2,218
Other ⁽⁴⁾	9,717	7,272
Total current	<u>\$ 41,930</u>	<u>\$ 45,781</u>
Non-current:		
Unrealized loss on derivatives ⁽¹⁾	\$ 3,025	\$ 4,649
Pension balancing ⁽⁵⁾	74,173	60,383
Income taxes	19,185	19,991
Pension and other postretirement benefit liabilities	174,993	179,824
Environmental costs ⁽²⁾	76,149	72,128
Gas costs	9,978	84
Decoupling ⁽³⁾	2,545	3,970
Other ⁽⁴⁾	11,738	15,579
Total non-current	<u>\$ 371,786</u>	<u>\$ 356,608</u>
Regulatory Liabilities		
<i>In thousands</i>	2018	2017
Current:		
Gas costs	\$ 17,182	\$ 14,886
Unrealized gain on derivatives ⁽¹⁾	8,740	1,674
Decoupling ⁽³⁾	2,264	322
Other ⁽⁴⁾	19,250	17,131
Total current	<u>\$ 47,436</u>	<u>\$ 34,013</u>
Non-current:		
Gas costs	\$ 552	\$ 4,630
Unrealized gain on derivatives ⁽¹⁾	725	1,306
Decoupling ⁽³⁾	—	957
Income taxes ⁽⁶⁾	225,408	213,306
Accrued asset removal costs ⁽⁷⁾	380,464	360,929
Other ⁽⁴⁾	4,411	4,965
Total non-current	<u>\$ 611,560</u>	<u>\$ 586,093</u>

⁽¹⁾ Unrealized gains or losses on derivatives are non-cash items and, therefore, do not earn a rate of return or a carrying charge. These amounts are recoverable through natural gas distribution rates as part of the annual Purchased Gas Adjustment (PGA) mechanism when realized at settlement.

⁽²⁾ Refer to footnote (3) of the Deferred Regulatory Asset table in Note 17 for a description of environmental costs.

- (3) This deferral represents the margin adjustment resulting from differences between actual and expected volumes.
- (4) Balances consist of deferrals and amortizations under approved regulatory mechanisms and typically earn a rate of return or carrying charge.
- (5) Refer to footnote (1) of the Net Periodic Benefit Cost table in Note 9 for information regarding the deferral of pension expenses.
- (6) This balance represents estimated amounts associated with the Tax Cuts and Jobs Act. See Note 10.
- (7) Estimated costs of removal on certain regulated properties are collected through rates. See "Accounting Policies—*Plant, Property, and Accrued Asset Removal Costs*" below.

The amortization period for NW Natural's regulatory assets and liabilities ranges from less than one year to an indeterminable period. Regulatory deferrals for gas costs payable are generally amortized over 12 months beginning each November 1 following the gas contract year during which the deferred gas costs are recorded. Similarly, most other regulatory deferred accounts are amortized over 12 months. However, certain regulatory account balances, such as income taxes, environmental costs, pension liabilities, and accrued asset removal costs, are large and tend to be amortized over longer periods once NW Natural has agreed upon an amortization period with the respective regulatory agency.

We believe all costs incurred and deferred at December 31, 2018 are prudent. All regulatory assets and liability are reviewed annually for recoverability, or more often if circumstances warrant. If it is determined that all or a portion of these regulatory assets or liabilities no longer meet the criteria for continued application of regulatory accounting, then NW Natural would be required to write-off the net unrecoverable balances in the period such determination is made.

Environmental Regulatory Accounting

See Note 17 for information about the SRRM and OPUC orders regarding implementation.

New Accounting Standards

NW Holdings and NW Natural consider the applicability and impact of all accounting standards updates (ASUs) issued by the Financial Accounting Standards Board (FASB). ASUs not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on the consolidated financial position or results of operations.

Recently Adopted Accounting Pronouncements

STOCK COMPENSATION. On May 10, 2017, the FASB issued ASU 2017-09, "Stock Compensation - Scope of Modification Accounting." The purpose of the amendment is to provide clarity, reduce diversity in practice, and reduce the cost and complexity when applying the guidance in Topic 718, related to a change to the terms or conditions of a share-based payment award. Specifically, an entity would not apply modification accounting if the fair value, vesting conditions, and classification of the awards are the same immediately before and after the modification. The amendments in this update were effective beginning January 1, 2018, and will be applied prospectively to any award modified on or after the adoption date. The adoption did not have a material impact to the financial statements or disclosures of NW Holdings or NW Natural.

RETIREMENT BENEFITS. On March 10, 2017, the FASB issued ASU 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post Retirement Benefit Cost." The ASU requires entities to disaggregate current service cost from the other components of net periodic benefit cost and present it with other current compensation costs for related employees in the income statement. Additionally, the other components of net periodic benefit costs are to be presented elsewhere in the income statement and outside of income from operations if that subtotal is presented. Only the service cost component of the net periodic benefit cost is eligible for capitalization. The amendments in this update were effective beginning January 1, 2018. Upon adoption, the ASU required that changes to the income statement presentation of net periodic benefit cost be applied retrospectively, while changes to amounts capitalized must be applied prospectively. As such, the interest cost, expected return on assets, amortization of prior service costs, and other costs have been reclassified from operations and maintenance expense to other income (expense), net on the consolidated statements of comprehensive income for the years ended December 31, 2017 and 2016. We did not elect the practical expedient which would have allowed for the reclassification of amounts disclosed previously in the pension and other postretirement benefits footnote disclosure as the basis for applying retrospective presentation. As mentioned above, on a prospective basis, the other components of net periodic benefit cost will not be eligible for capitalization.

The retrospective presentation requirement related to the other components of net periodic benefit cost affected the operations and maintenance expense and other income (expense), net lines on the NW Natural consolidated statements of comprehensive income. For the years ended December 31, 2017 and 2016, \$5.6 million and \$6.6 million of expense was reclassified from operations and maintenance expense and included in other income (expense), net, respectively.

GOODWILL. On January 26, 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment." The ASU removes Step 2 from the goodwill impairment test and under the amended guidance an entity should perform its annual goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount in which the carrying

amounts exceed the fair value of the reporting unit. The amendments in this standard are effective beginning January 1, 2020 and early adoption is permitted for interim or annual goodwill impairment tests performed after January 1, 2017. ASU 2017-04 was early adopted in the third quarter ended September 30, 2018. The adoption of this ASU did not materially affect the financial statements or disclosures of NW Holdings or NW Natural and is currently not applicable to NW Natural.

STATEMENT OF CASH FLOWS. On August 26, 2016, the FASB issued ASU 2016-15, "Classification of Certain Cash Receipts and Cash Payments." The ASU adds guidance pertaining to the classification of certain cash receipts and payments on the statement of cash flows. The purpose of the amendment is to clarify issues that have been creating diversity in practice. The amendments in this standard were effective beginning January 1, 2018, and the adoption did not have a material impact to financial statements or disclosures as our historical practices and presentation were consistent with the directives of this ASU for NW Holdings and NW Natural.

FINANCIAL INSTRUMENTS. On January 5, 2016, the FASB issued ASU 2016-01, "Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities." The ASU enhances the reporting model for financial instruments, which includes amendments to address aspects of recognition, measurement, presentation, and disclosure. The new standard was effective beginning January 1, 2018, and the adoption did not materially impact the financial statements or disclosures of NW Holdings or NW Natural.

REVENUE RECOGNITION. On May 28, 2014, the FASB issued ASU 2014-09 "Revenue From Contracts with Customers." The underlying principle of the guidance requires entities to recognize revenue depicting the transfer of goods or services to customers at amounts the entity is expected to be entitled to in exchange for those goods or services. The ASU also prescribes a five-step approach to revenue recognition: (1) identify the contract(s) with the customer; (2) identify the separate performance obligations in the contract(s); (3) determine the transaction price; (4) allocate the transaction price to separate performance obligations; and (5) recognize revenue when, or as, each performance obligation is satisfied. The guidance also requires additional disclosures, both qualitative and quantitative, regarding the nature, amount, timing and uncertainty of revenue and cash flows.

The new accounting standard and all related amendments were effective beginning January 1, 2018. The accounting standard was applied to all contracts using the modified retrospective method. The new standard is primarily reflected in the consolidated statements of comprehensive income and Note 6. The implementation of the new revenue standard did not result in changes to how NW Holdings and NW Natural currently recognize revenue, and therefore, no cumulative effect or adjustment to the opening balances of retained earnings was required. The implementation did result in changes to the disclosures and presentation of revenues and expenses. The comparative information for prior years has not been restated. There is no material

impact to the financial results of NW Holdings or NW Natural and no significant changes to our control environment due to the adoption of the new revenue standard on an ongoing basis.

As previously discussed, the adoption of the new revenue standard did not impact the consolidated balance sheets or statements of cash flows but did result in changes to the presentation of the consolidated statements of comprehensive income for NW Holdings and NW Natural. Had the adoption of the new revenue standard not occurred, operating revenues for the year ended December 31, 2018 would have been \$676.0 million for NW Holdings, compared to the reported amount of \$706.1 million under the new revenue standard. Similarly, absent the impact of the new revenue standard, operating expenses would have been \$543.9 million for NW Holdings, compared to the reported amount of \$574.0 million under the new revenue standard for the year ended December 31, 2018. The effect of the change was an increase in both operating revenues and operating expenses of \$30.1 million at NW Holdings and NW Natural for the year ended December 31, 2018; due to the change in presentation of revenue taxes. As part of the adoption of the new revenue standard, we evaluated the presentation of revenue taxes under the new guidance and across our peer group and concluded that the gross presentation of revenue taxes provides the greatest level of consistency and transparency. Prior to the adoption of the new revenue standard, a portion of revenue taxes was presented net in operating revenues and a portion was recorded directly on the balance sheet. During year ended December 31, 2018, \$30.1 million in revenue taxes for NW Holdings and NW Natural was recognized in operating revenues and operating expenses. In comparison, for the years ended December 31, 2017 and 2016, \$32.2 million and \$28.3 million was recognized in revenue taxes for NW Holdings and NW Natural, of which \$19.1 million and \$17.1 million were recorded in operating revenues and \$13.1 million and \$11.2 million were recorded on the consolidated balance sheets, respectively. The change in presentation of revenue taxes had no impact on NGD margin, net income or earnings per share.

Recently Issued Accounting Pronouncements

CLOUD COMPUTING. On August 29, 2018, the FASB issued ASU 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The purpose of the amendment is to align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The amendments in this update are effective beginning January 1, 2020. Early adoption is permitted. The amended guidance can be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. We are currently assessing the effect of this standard on NW Holdings' and NW Natural's financial statements and disclosures.

RETIREMENT BENEFITS. On August 28, 2018, the FASB issued ASU 2018-14, "Changes to the Disclosure Requirements for Defined Benefit Plans." The purpose of the amendment is to modify the disclosure requirements for

defined benefit pension and other postretirement plans. The amendments in this update are effective for the year ended December 31, 2020. Early adoption is permitted. The amended presentation and disclosure guidance should be applied retrospectively. We are currently assessing the effect of this standard on NW Holdings' and NW Natural's disclosures.

FAIR VALUE MEASUREMENT. On August 28, 2018, the FASB issued ASU 2018-13, "Changes to the Disclosure Requirements for Fair Value Measurement." The purpose of the amendment is to modify the disclosure requirements for fair value measurements. The amendments in this update are effective beginning January 1, 2020. Early adoption is permitted. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively. All other amendments should be applied retrospectively. We are currently assessing the effect of this standard on NW Holdings' and NW Natural's disclosures.

ACCUMULATED OTHER COMPREHENSIVE INCOME. On February 14, 2018, the FASB issued ASU 2018-02, "Income Statement—Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." This update was issued in response to concerns from certain stakeholders regarding the current requirements under U.S. GAAP that deferred tax assets and liabilities are adjusted for a change in tax laws or rates, and the effect is to be included in income from continuing operations in the period of the enactment date. This requirement is also applicable to items in accumulated other comprehensive income where the related tax effects were originally recognized in other comprehensive income. The adjustment of deferred taxes due to the new corporate income tax rate enacted through the TCJA on December 22, 2017 recognized in income from continuing operations causes the tax effects of items within accumulated other comprehensive income (referred to as stranded tax effects) to not reflect the appropriate tax rate. The amendments in this update allow a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the TCJA and require certain disclosures about stranded tax effects. The amendments in this update are effective beginning January 1, 2019, and should be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the federal corporate income tax rate in the TCJA is recognized. The reclassification allowed in this update is elective, and we are currently assessing whether we will make the reclassification. This update is not expected to have a material impact on the financial condition of NW Holdings or NW Natural.

DERIVATIVES AND HEDGING. On August 28, 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities." The purpose of the amendment is to more closely align hedge accounting with companies' risk management strategies. The ASU amends the accounting for risk component hedging, the hedged item in fair value hedges of interest rate risk, and amounts excluded from the

assessment of hedge effectiveness. The guidance also amends the recognition and presentation of the effect of hedging instruments and includes other simplifications of hedge accounting. The amendments in this update are effective beginning January 1, 2019. Early adoption is permitted. The amended presentation and disclosure guidance is required prospectively. We do not anticipate the adoption of this standard to have a material impact on NW Holdings' and NW Natural's financial statements and disclosures.

LEASES. On February 25, 2016, the FASB issued ASU 2016-02, "Leases," which revises the existing lease accounting guidance. Pursuant to the new standard, lessees will be required to recognize all leases, including operating leases that are greater than 12 months at lease commencement, on the balance sheet and record corresponding right-of-use assets and lease liabilities. Lessor accounting will remain substantially the same under the new standard. Quantitative and qualitative disclosures are also required for users of the financial statements to have a clear understanding of the nature of NW Natural's leasing activities. On July 30, 2018, the FASB approved an optional alternative transition approach that would allow entities to apply the transition requirements on the effective date of the standard. Additionally, on January 25, 2018, the FASB issued ASU 2018-01, "Land Easement Practical Expedient for Transition to Topic 842", to address the costs and complexity of applying the transition provisions of the new lease standard to land easements. This ASU provides an optional practical expedient to not evaluate existing or expired land easements that were not previously accounted for as leases under the current lease guidance. The standard and associated ASUs were effective for us beginning January 1, 2019.

We elected the alternative prospective transition approach for adoption of ASC 842 beginning January 1, 2019. All comparative periods prior to January 1, 2019 will retain the financial reporting and disclosure requirements of ASC 840 "Leases" ("ASC 840"). We elected the land easement optional practical expedient to not evaluate existing or expired land easements that were not previously accounted for as leases under the current lease guidance. For the existing lease portfolio, we did not elect the optional practical expedient package to retain the legacy lease accounting conclusions upon adoption; rather, we re-assessed our existing contracts under the new leasing standard including whether the contract meets the definition of a lease and lease classification. As a result, we determined that most of our underground gas storage contracts no longer meet the definition of a lease under the new lease standard. Our lease portfolio under the new standard consists primarily of our leased headquarters, which expires in 2020. Upon adoption, NW Holdings expects to record a right-of-use lease asset and an associated lease liability of approximately \$7.3 million, of which \$7.0 million is expected to be recorded at NW Natural.

In October 2017, NW Natural entered into a 20-year operating lease agreement commencing in 2020 for the new headquarters location in Portland, Oregon. Under the new lease standard, NW Natural is no longer considered the accounting owner of the asset during construction. As such,

we expect to de-recognized the build-to-suit asset and liability balances of \$26.0 million as of December 31, 2018 that were recorded under ASC 840 within property, plant and equipment and other non-current liabilities in the consolidated balance sheet. Refer to Note 16 for current lease commitments.

CREDIT LOSSES. On June 16, 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments," which applies to financial assets subject to credit losses and measured at amortized cost. The new standard will require financial assets measured at amortized cost to be presented at the net amount expected to be collected and the allowance for credit losses is to be recorded as a valuation account that is deducted from the amortized cost basis. The amendments in this update are effective beginning January 1, 2020. Early adoption is permitted for fiscal years beginning after December 15, 2018. We are currently assessing the effect of this standard on the financial statements and disclosures of NW Holdings and NW Natural.

Accounting Policies

The accounting policies discussed below apply to both NW Holdings and NW Natural.

Plant, Property, and Accrued Asset Removal Costs

Plant and property are stated at cost, including capitalized labor, materials, and overhead. In accordance with regulatory accounting standards, the cost of acquiring and constructing long-lived plant and property generally includes an allowance for funds used during construction (AFUDC) or capitalized interest. AFUDC represents the regulatory financing cost incurred when debt and equity funds are used for construction (see "AFUDC" below). When constructed assets are subject to market-based rates rather than cost-based rates, the financing costs incurred during construction are included in capitalized interest in accordance with U.S. GAAP, not as regulatory financing costs under AFUDC.

In accordance with long-standing regulatory treatment, our depreciation rates consist of three components: one based on the average service life of the asset, a second based on the estimated salvage value of the asset, and a third based on the asset's estimated cost of removal. We collect, through rates, the estimated cost of removal on certain regulated properties through depreciation expense, with a corresponding offset to accumulated depreciation. These removal costs are non-legal obligations as defined by regulatory accounting guidance. Therefore, we have included these costs as non-current regulatory liabilities rather than as accumulated depreciation on our consolidated balance sheets. In the rate setting process, the liability for removal costs is treated as a reduction to the net rate base on which the NGD business has the opportunity to earn its allowed rate of return.

The costs of NGD plant retired or otherwise disposed of are removed from NGD plant and charged to accumulated depreciation for recovery or refund through future rates. Gains from the sale of regulated assets are generally deferred and refunded to customers. For assets not related to NGD, we record a gain or loss upon the disposal of the property, and the gain or loss is recorded in operating

income or loss in the consolidated statements of comprehensive income.

The provision for depreciation of NGD property, plant, and equipment is recorded under the group method on a straight-line basis with rates computed in accordance with depreciation studies approved by regulatory authorities. The weighted-average depreciation rate for NGD assets in service was approximately 2.8% for 2018, 2017, and 2016, reflecting the approximate weighted-average economic life of the property. This includes 2018 weighted-average depreciation rates for the following asset categories: 2.7% for transmission and distribution plant, 2.1% for gas storage facilities, 4.5% for general plant, and 3.1% for intangible and other fixed assets.

AFUDC. Certain additions to NGD plant include AFUDC, which represents the net cost of debt and equity funds used during construction. AFUDC is calculated using actual interest rates for debt and authorized rates for ROE, if applicable. If short-term debt balances are less than the total balance of construction work in progress, then a composite AFUDC rate is used to represent interest on all debt funds, shown as a reduction to interest charges, and on ROE funds, shown as other income. While cash is not immediately recognized from recording AFUDC, it is realized in future years through rate recovery resulting from the higher NGD cost of service. Our composite AFUDC rate was 5.2% in 2018, 5.5% in 2017, and 0.7% in 2016.

IMPAIRMENT OF LONG-LIVED ASSETS. We review the carrying value of long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. Factors that would necessitate an impairment assessment of long-lived assets include a significant adverse change in the extent or manner in which the asset is used, a significant adverse change in legal factors or business climate that could affect the value of the asset, or a significant decline in the observable market value or expected future cash flows of the asset, among others.

When such factors are present, we assess the recoverability by determining whether the carrying value of the asset will be recovered through expected future cash flows. An asset is determined to be impaired when the carrying value of the asset exceeds the expected undiscounted future cash flows from the use and eventual disposition of the asset. If an impairment is indicated, we record an impairment loss for the difference between the carrying value and the fair value of the long-lived assets. Fair value is estimated using appropriate valuation methodologies, which may include an estimate of discounted cash flows.

In the fourth quarter of 2017, a non-cash pre-tax impairment of long-lived assets at the Gill Ranch Facility of \$192.5 million was recognized. The income approach was used to estimate fair value, using the estimated future net cash flows. We also compared the results of the income approach to our own recent sale experience and recent market comparable transactions in order to estimate fair value. The Gill Ranch Facility was originally included in the gas storage segment, which has since been eliminated, and is now included in discontinued operations. We determined

circumstances existed that indicated the carrying value of the assets may not be recoverable. Those circumstances included the completion of a comprehensive strategic review process that evaluated various alternatives including a potential sale, as well as contracting for available storage at lower than anticipated values for the coming storage year. Given these considerations, management re-evaluated the estimated cash flows from our interests in the Gill Ranch Facility, and determined that those estimated cash flows were no longer sufficient to cover the carrying value of the assets. The results of Gill Ranch have been presented as a discontinued operation for NW Holdings and NW Natural on the consolidated statements of comprehensive income and cash flows, and the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and liabilities on the consolidated balance sheets. See Note 18 for additional information.

Cash and Cash Equivalents

For purposes of reporting cash flows, cash and cash equivalents include cash on hand plus highly liquid investment accounts with original maturity dates of three months or less. At December 31, 2018 and 2017, NW Holdings had outstanding checks of approximately \$2.7 million and \$4.8 million, respectively, substantially all of which is recorded at NW Natural. These balances are included in accounts payable in the NW Holdings and NW Natural balance sheets.

Revenue Recognition and Accrued Unbilled Revenue

Revenues, derived primarily from the sale and transportation of natural gas, are recognized upon delivery of the gas commodity or service to customers. Revenues include accruals for gas or water delivered but not yet billed to customers based on estimates of deliveries from meter reading dates to month end (accrued unbilled revenue). Accrued unbilled revenue is dependent upon a number of factors that require management's judgment, including total natural gas receipts and deliveries, customer use of natural gas or water by billing cycle, and weather factors. Accrued unbilled revenue is reversed the following month when actual billings occur. NW Holdings' accrued unbilled revenue at December 31, 2018 and 2017 was \$57.8 million and \$62.4 million, respectively, substantially all of which is accrued unbilled revenue at NW Natural.

Revenues not related to NGD are derived primarily from Interstate Storage Services, asset management activities at the Mist gas storage facility, and other investments and business activities. At the Mist underground storage facility, revenues are primarily firm service revenues in the form of fixed monthly reservation charges. In addition, we also have asset management service revenue from an independent energy marketing company that optimizes commodity, storage, and pipeline capacity release transactions. Under this agreement, guaranteed asset management revenue is recognized using a straight-line, pro-rata methodology over the term of each contract. Revenues earned above the guaranteed amount are recognized as they are earned.

Revenue Taxes

Revenue-based taxes are primarily franchise taxes, which are collected from customers and remitted to taxing authorities. In 2018, revenue taxes are included in operating expenses in the statements of comprehensive income for NW Holdings and NW Natural. In 2017 and 2016, revenue taxes are included in operating revenues in the statements of comprehensive income for NW Holdings and NW Natural. All revenue taxes are recorded at NW Natural and were \$30.1 million, \$19.1 million, and \$17.1 million for 2018, 2017, and 2016, respectively.

Accounts Receivable and Allowance for Uncollectible Accounts

Accounts receivable consist primarily of amounts due for natural gas sales and transportation services to NGD customers, plus amounts due for gas storage services. At NW Holdings and NW Natural we establish allowances for uncollectible accounts (allowance) for trade receivables, including accrued unbilled revenue, based on the aging of receivables, collection experience of past due account balances including payment plans, and historical trends of write-offs as a percent of revenues. A specific allowance is established and recorded for large individual customer receivables when amounts are identified as unlikely to be partially or fully recovered. Inactive accounts are written-off against the allowance after they are 120 days past due or when deemed uncollectible. Differences between the estimated allowance and actual write-offs will occur based on a number of factors, including changes in economic conditions, customer creditworthiness, and natural gas prices. The allowance for uncollectible accounts is adjusted quarterly, as necessary, based on information currently available.

Inventories

NGD gas inventories, which consist of natural gas in storage for NGD, are stated at the lower of average cost or net realizable value. The regulatory treatment of these inventories provides for cost recovery in customer rates. NGD gas inventories injected into storage are priced in inventory based on actual purchase costs, and those withdrawn from storage are charged to cost of gas during the current period they are withdrawn at the weighted-average inventory cost.

Gas storage inventories, which primarily represent inventories at the Gill Ranch Facility and are included in Discontinued operations - current assets on the consolidated balance sheets, mainly consist of natural gas received as fuel-in-kind from storage customers. Gas storage inventories are valued at the lower of average cost or net realizable value. Cushion gas is not included in inventory balances, is recorded at original cost, and is classified as a long-term plant asset.

Materials and supplies inventories consist of inventories both related to and unrelated to NGD and are stated at the lower of average cost or net realizable value.

NW Natural's NGD and gas storage inventories totaled \$29.9 million and \$36.7 million at December 31, 2018 and 2017, respectively. At December 31, 2018 and 2017, NW Holdings' materials and supplies inventories, which are comprised primarily of NW Natural's materials and supplies, totaled \$14.2 million and \$10.9 million, respectively.

Gas Reserves

Gas reserves are payments to acquire and produce natural gas reserves. Gas reserves are stated at cost, adjusted for regulatory amortization, with the associated deferred tax benefits recorded as liabilities on the balance sheet. The current portion is calculated based on expected gas deliveries within the next fiscal year. NW Natural recognizes regulatory amortization of this asset on a volumetric basis calculated using the estimated gas reserves and the estimated therms extracted and sold each month. The amortization of gas reserves is recorded to cost of gas along with gas production revenues and production costs. See Note 12.

Derivatives

NW Natural's derivatives are measured at fair value and recognized as either assets or liabilities on the balance sheet. Changes in the fair value of the derivatives are recognized currently in earnings unless specific regulatory or hedge accounting criteria are met. Accounting for derivatives and hedges provides an exception for contracts intended for normal purchases and normal sales for which physical delivery is probable. In addition, certain derivative contracts are approved by regulatory authorities for recovery or refund through customer rates. Accordingly, the changes in fair value of these approved contracts are deferred as regulatory assets or liabilities pursuant to regulatory accounting principles. NW Natural's financial derivatives generally qualify for deferral under regulatory accounting. NW Natural's index-priced physical derivative contracts also qualify for regulatory deferral accounting treatment.

Derivative contracts entered into for NGD requirements after the annual PGA rate has been set and maturing during the PGA year are subject to the PGA incentive sharing mechanism. In Oregon, NW Natural participates in a PGA sharing mechanism under which it is required to select either an 80% or 90% deferral of higher or lower gas costs such that the impact on current earnings from the gas cost sharing is either 20% or 10% of gas cost differences compared to PGA prices, respectively. For the PGA years in Oregon beginning November 1, 2018, 2017, and 2016, NW Natural selected the 90%, 90%, and 90% deferral of gas cost differences, respectively. In Washington, 100% of the differences between the PGA prices and actual gas costs are deferred. See Note 15.

NW Natural's financial derivatives policy sets forth the guidelines for using selected derivative products to support prudent risk management strategies within designated parameters. NW Natural's objective for using derivatives is to decrease the volatility of gas prices, earnings, and cash flows without speculative risk. The use of derivatives is permitted only after the risk exposures have been identified, are determined not to exceed acceptable tolerance levels, and are determined necessary to support normal business activities. NW Natural does not enter into derivative

instruments for trading purposes. All derivatives for NW Holdings are currently held at NW Natural.

Fair Value

In accordance with fair value accounting, we use the following fair value hierarchy for determining inputs for our debt, pension plan assets, and derivative fair value measurements:

- Level 1: Valuation is based on quoted prices for identical instruments traded in active markets;
- Level 2: Valuation is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market; and
- Level 3: Valuation is generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions reflect our own estimates of assumptions market participants would use in valuing the asset or liability.

When developing fair value measurements, it is our policy to use quoted market prices whenever available or to maximize the use of observable inputs and minimize the use of unobservable inputs when quoted market prices are not available. Fair values are primarily developed using industry-standard models that consider various inputs including: (a) quoted future prices for commodities; (b) forward currency prices; (c) time value; (d) volatility factors; (e) current market and contractual prices for underlying instruments; (f) market interest rates and yield curves; (g) credit spreads; and (h) other relevant economic measures. NW Natural considers liquid points for natural gas hedging to be those points for which there are regularly published prices in a nationally recognized publication or where the instruments are traded on an exchange.

Goodwill

NW Holdings, through its wholly-owned subsidiary NWN Water and NW Water's wholly-owned subsidiaries, has completed various acquisitions that resulted in the recognition of goodwill. Goodwill is measured as the excess of the acquisition-date fair value of the consideration transferred over the acquisition-date fair value of the net identifiable assets assumed. Adjustments are recorded during the measurement period to finalize the allocation of the purchase price. The carrying value of goodwill is reviewed annually during the fourth quarter using balances as of October 1, or whenever events or changes in circumstance indicate that such carrying values may not be recoverable. The goodwill assessment policy begins with a qualitative analysis in which events and circumstances are evaluated, including macroeconomic conditions, industry and market conditions, regulatory environments, and overall financial performance of the reporting unit. If the qualitative assessment indicates that the carrying value may be at risk of recoverability, a quantitative evaluation is performed to measure the carrying value of the goodwill against the fair value of the reporting unit. The reporting unit is determined primarily based on current operating segments and the level of review provided by the Chief Operating Decision Maker (CODM) and/or segment management on the operating

segment's financial results. Reporting units are evaluated periodically for changes in the corporate environment. As of December 31, 2018, NW Holdings had goodwill of \$9.0 million. All of NW Holdings' goodwill was acquired in 2018 through the business combinations completed by NWN Water and its wholly-owned subsidiaries. No impairment charges were recorded as a result of the fourth quarter goodwill impairment assessment.

Income Taxes

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the enactment date period unless, for NW Natural, a regulatory Order specifies deferral of the effect of the change in tax rates over a longer period of time.

For NW Natural, deferred income tax assets and liabilities are also recognized for temporary differences where the deferred income tax benefits or expenses have previously been flowed through in the ratemaking process of the NGD business. Regulatory tax assets and liabilities are recorded on these deferred tax assets and liabilities to the extent it is believed they will be recoverable from or refunded to customers in future rates.

Deferred investment tax credits on NGD plant additions, which reduce income taxes payable, are deferred for financial statement purposes and amortized over the life of the related plant.

Interest and penalties related to unrecognized tax benefits, if any, are recognized within income tax expense and accrued interest and penalties are recognized within the related tax liability line in the consolidated balance sheets. No accrued interest or penalties for uncertain tax benefits have been recorded. See Note 10.

Environmental Contingencies

Loss contingencies are recorded as liabilities when it is probable a liability has been incurred and the amount of the loss is reasonably estimable in accordance with accounting standards for contingencies. Estimating probable losses requires an analysis of uncertainties that often depend upon judgments about potential actions by third parties. Accruals for loss contingencies are recorded based on an analysis of potential results.

With respect to environmental liabilities and related costs, estimates are developed based on a review of information available from numerous sources, including completed studies and site specific negotiations. NW Natural's policy is to accrue the full amount of such liability when information is sufficient to reasonably estimate the amount of probable liability. When information is not available to reasonably estimate the probable liability, or when only the range of

probable liabilities can be estimated and no amount within the range is more likely than another, it is our policy to accrue at the low end of the range. Accordingly, due to numerous uncertainties surrounding the course of environmental remediation and the preliminary nature of several site investigations, in some cases, it may not be possible to reasonably estimate the high end of the range of possible loss. In those cases, the nature of the potential loss and the fact that the high end of the range cannot be reasonably estimated is disclosed. See Note 17.

Subsequent Events

We monitor significant events occurring after the balance sheet date and prior to the issuance of the financial statements to determine the impacts, if any, of events on the financial statements to be issued. We do not have any subsequent events to report.

3. EARNINGS PER SHARE

Basic earnings or loss per share are computed using NW Holdings' net income or loss and the weighted average number of common shares outstanding for each period presented. Diluted earnings per share are computed in the same manner, except it uses the weighted average number of common shares outstanding plus the effects of the

assumed exercise of stock options and the payment of estimated stock awards from other stock-based compensation plans that are outstanding at the end of each period presented. Antidilutive stock awards are excluded from the calculation of diluted earnings or loss per common share.

NW Holdings' diluted earnings or loss per share are calculated as follows:

<i>In thousands, except per share data</i>	2018	2017	2016
Net income from continuing operations	\$ 67,311	\$ 72,073	\$ 62,419
Loss from discontinued operations, net of tax	(2,742)	(127,696)	(3,524)
Net income (loss)	\$ 64,569	\$ (55,623)	\$ 58,895
Average common shares outstanding - basic	28,803	28,669	27,647
Additional shares for stock-based compensation plans (See Note 7)	70	84	132
Average common shares outstanding - diluted	28,873	28,753	27,779
Earnings (loss) from continuing operations per share of common stock:			
Basic	\$ 2.34	\$ 2.51	\$ 2.26
Diluted	\$ 2.33	\$ 2.51	\$ 2.25
Loss from discontinued operations per share of common stock:			
Basic	\$ (0.10)	\$ (4.45)	\$ (0.13)
Diluted	\$ (0.09)	\$ (4.44)	\$ (0.13)
Earnings (loss) per share of common stock:			
Basic	\$ 2.24	\$ (1.94)	\$ 2.13
Diluted	\$ 2.24	\$ (1.93)	\$ 2.12
Additional information:			
Antidilutive shares	2	13	5

4. SEGMENT INFORMATION

We primarily operate in one reportable business segment, which is NW Natural's local gas distribution business and is referred to as the NGD segment. During the second quarter of 2018, we moved forward with our long-term strategic plans, which include a shift away from the California gas storage business, by entering into a Purchase and Sale Agreement that provides for the sale of all of the membership interests in Gill Ranch, subject to various regulatory approvals and closing conditions. As such, we reevaluated reportable segments and concluded that the remaining gas storage activities no longer meet the requirements of a reportable segment. Interstate Storage Services and asset management activities at the Mist gas storage facility are now reported as other under NW Natural. NW Natural and NW Holdings also have investments and business activities not specifically related to NGD, which are aggregated and reported as other and described below for each entity.

No individual customer accounts for over 10% of NW Holdings' or NW Natural's operating revenues.

Natural Gas Distribution

The NGD segment is a regulated utility principally engaged in the purchase, sale, and delivery of natural gas and related services to customers in Oregon and southwest Washington. With regulated utility operations, NW Natural is responsible for building and maintaining a safe and reliable pipeline distribution system, purchasing sufficient gas supplies from producers and marketers, contracting for firm

and interruptible transportation of gas over interstate pipelines to bring gas from the supply basins into its service territory, and re-selling the gas to customers subject to rates, terms, and conditions approved by the OPUC or WUTC. NGD also includes taking customer-owned gas and transporting it from interstate pipeline connections, or city gates, to the customers' end-use facilities for a fee, which is approved by the OPUC or WUTC. Approximately 89% of NGD customers are located in Oregon and 11% in Washington. On an annual basis, residential and commercial customers typically account for around 60% of total NGD volumes delivered and around 90% of NGD margin. Industrial customers largely account for the remaining volumes and NGD margin. A small amount of the margin is also derived from miscellaneous services, gains or losses from an incentive gas cost sharing mechanism, and other service fees.

Industrial sectors served by NW Natural include: pulp, paper, and other forest products; the manufacture of electronic, electrochemical and electrometallurgical products; the processing of farm and food products; the production of various mineral products; metal fabrication and casting; the production of machine tools, machinery, and textiles; the manufacture of asphalt, concrete, and rubber; printing and publishing; nurseries; and government and educational institutions.

In addition to NW Natural's local gas distribution business, the NGD segment also includes the portion of the Mist underground storage facility used to serve NGD customers, the North Mist gas storage expansion in Oregon, and NWN Gas Reserves, which is a wholly-owned subsidiary of Energy Corp.

NW Natural

NW Natural activities included in Other includes Interstate Storage Services and third-party asset management services for the Mist facility in Oregon, appliance retail center operations, and corporate operating and non-operating revenues and expenses that cannot be allocated to NGD operations.

Earnings from Interstate Storage Services assets are primarily related to firm storage capacity revenues.

Earnings from the Mist facility also include revenue, net of amounts shared with NGD customers, from management of NGD assets at Mist and upstream pipeline capacity when not needed to serve NGD customers. Historically, under the Oregon sharing mechanism, NW Natural retained 80% of the pre-tax income from these services when the costs of the capacity were not included in NGD rates, or 33% of the pre-tax income when the costs have been included in these rates. The remaining 20% and 67%, respectively, were recorded to a deferred regulatory account for crediting back to NGD customers. After November 1, 2018 NW Natural retains 10% of the pre-tax income when the costs have been included in these rates,

and the remaining 90% is recorded to a deferred regulatory account for crediting back to NGD customers.

NW Holdings

NW Holdings' activities included in Other includes all remaining activities not associated with NW Natural, specifically NWN Water, which consolidates the water operations and is pursuing other investments in the water sector itself and through its wholly-owned subsidiaries, NWN Gas Storage, a wholly-owned subsidiary of NWN Energy, NWN Energy's equity investment in TWH, which is pursuing development of a cross-Cascades transmission pipeline project (TWP), and other pipeline assets in NNG Financial. For more information on TWP, see Note 13. Other also includes corporate revenues and expenses that cannot be allocated to other operations.

All prior period amounts have been retrospectively adjusted to reflect the change in reportable segments and the designation of Gill Ranch as a discontinued operation for NW Holdings, and the designation of subsidiaries previously owned by NW Natural that are now owned by NW Holdings as discontinued operations for NW Natural.

Segment Information Summary

Inter-segment transactions were immaterial for the periods presented. The following table presents summary financial information concerning the reportable segments of continued operations. See Note 18 for information regarding discontinued operations for NW Holdings and NW Natural.

<i>In thousands</i>	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
2018					
Operating revenues	\$ 680,648	\$ 24,923	\$ 705,571	\$ 572	\$ 706,143
Depreciation and amortization	83,732	1,254	84,986	170	85,156
Income (loss) from operations	118,095	15,004	133,099	(937)	132,162
Net income (loss) from continuing operations	57,491	10,558	68,049	(738)	67,311
Capital expenditures	212,323	2,005	214,328	308	214,636
Total assets at December 31, 2018 ⁽²⁾	3,141,969	50,767	3,192,736	36,657	3,229,393
2017					
Operating revenues	\$ 732,942	\$ 22,096	\$ 755,038	\$ —	\$ 755,038
Depreciation and amortization	79,734	1,290	81,024	29	81,053
Income (loss) from operations	138,450	12,472	150,922	(20)	150,902
Net income from continuing operations ⁽¹⁾	60,509	11,211	71,720	353	72,073
Capital expenditures	211,672	1,653	213,325	—	213,325
Total assets at December 31, 2017 ⁽²⁾	2,961,326	50,471	3,011,797	14,075	3,025,872
2016					
Operating revenues	\$ 650,477	\$ 17,472	\$ 667,949	\$ 224	\$ 668,173
Depreciation and amortization	76,289	1,286	77,575	29	77,604
Income (loss) from operations	137,178	14,109	151,287	(570)	150,717
Net income (loss) from continuing operations ⁽³⁾	54,567	8,268	62,835	(416)	62,419
Capital expenditures	138,074	283	138,357	—	138,357
Total assets at December 31, 2016 ⁽²⁾	2,806,627	48,719	2,855,346	14,040	2,869,386

⁽¹⁾ Includes \$1.0 million of tax expense in NGD, \$4.0 million of tax benefit in Other (NW Natural), and \$0.4 million of tax benefit in Other (NW Holdings) from the TCJA remeasurement for the year ended December 31, 2017.

⁽²⁾ Total assets for NW Holdings exclude assets related to discontinued operations of \$13.3 million, \$13.9 million and \$210.4 million as of December 31, 2018, 2017, and 2016, respectively. Total assets for NW Natural exclude assets related to discontinued operations of \$31.9 million and \$226.1 million as of December 31, 2017, and 2016, respectively.

⁽³⁾ Includes \$2.0 million in 2016 of after-tax regulatory environmental disallowance charges in NGD.

Natural Gas Distribution Margin

NGD margin is a financial measure used by the CODM, consisting of NGD operating revenues, reduced by the associated cost of gas, environmental recovery revenues, and revenue taxes. The cost of gas purchased for NGD customers is generally a pass-through cost in the amount of revenues billed to regulated NGD customers.

Environmental recovery revenues represent collections received from customers through the environmental recovery mechanism in Oregon. These collections are offset by the amortization of environmental liabilities, which

is presented as environmental remediation expense in operating expenses. Revenue taxes are collected from NGD customers and remitted to taxing authorities. The collections from customers are offset by the expense recognition of the obligation to the taxing authority. By subtracting cost of gas, environmental remediation expense, and revenue taxes from NGD operating revenues, NGD margin provides a key metric used by the CODM in assessing the performance of the NGD segment.

The following table presents additional segment information concerning NGD margin:

<i>In thousands</i>	2018	2017	2016
NGD margin calculation:			
NGD operating revenues	\$ 680,648	\$ 732,942	\$ 650,477
Less: NGD cost of gas	255,743	325,019	260,588
Environmental remediation expense	11,127	15,291	13,298
Revenue taxes ⁽¹⁾	30,082	—	—
NGD margin	<u>\$ 383,696</u>	<u>\$ 392,632</u>	<u>\$ 376,591</u>

⁽¹⁾ The change in presentation of revenue taxes was a result of the adoption of ASU 2014-09 "Revenue From Contracts with Customers" and all related amendments on January 1, 2018. This change had no impact on NGD margin results as revenue taxes were previously presented net in NGD operating revenue. For additional information, see Note 2.

5. COMMON STOCK

As part of the reorganization of NW Holdings and NW Natural into a holding company structure effective October 1, 2018, NW Natural shareholders automatically became shareholders of NW Holdings on a one-for-one share basis with the same number of shares and same relative ownership percentage in NW Holdings as was held in NW Natural immediately prior to the reorganization.

As of December 31, 2018, NW Holdings had 100 million shares of common stock authorized. As of December 31, 2018 and 2017, NW Natural had 100 million shares of common stock authorized. As of December 31, 2018, NW Holdings had 24,339 shares reserved for issuance of common stock under the Employee Stock Purchase Plan (ESPP) and 394,204 shares reserved for issuance under the Dividend Reinvestment and Direct Stock Purchase Plan (DRPP). At NW Holdings' election, shares sold through the DRPP may be purchased in the open market or through original issuance of shares reserved for issuance under the DRPP.

The Restated Stock Option Plan (SOP) was terminated with respect to new grants in 2012; however, options granted before the Restated SOP was terminated remain outstanding until the earlier of their expiration, forfeiture, or exercise. Options are now exercisable for shares of NW Holdings common stock. There were 55,938 options outstanding at December 31, 2018, which were granted prior to termination of the plan.

During November 2016, NW Natural completed an equity issuance consisting of an offering of 880,000 shares of common stock along with a 30-day option for the underwriters to purchase an additional 132,000 shares. The offering closed on November 16, 2016 and resulted in a total issuance of 1,012,000 shares as both the initial offering and the underwriter option were fully executed. All shares

were issued on November 16, 2016 at an offering price of \$54.63 per share and resulted in total net proceeds of \$52.8 million.

Stock Repurchase Program

NW Holdings has a share repurchase program under which it may purchase its common shares on the open market or through privately negotiated transactions. NW Holdings currently has Board authorization through May 2019 to repurchase up to an aggregate of the greater of 2.8 million shares or \$100 million. No shares of common stock were repurchased pursuant to this program during the year ended December 31, 2018. Since the plan's inception in 2000 under NW Natural, a total of 2.1 million shares have been repurchased at a total cost of \$83.3 million.

The following table summarizes the changes in the number of shares of NW Holdings' common stock issued and outstanding:

<i>In thousands</i>	Shares
Balance, December 31, 2015	27,427
Sales to employees under ESPP	18
Stock-based compensation	173
Equity Issuance	1,012
Balance, December 31, 2016	28,630
Sales to employees under ESPP	18
Stock-based compensation	88
Balance, December 31, 2017	28,736
Sales to employees under ESPP	19
Stock-based compensation	64
Sales to shareholders under DRPP	61
Balance, December 31, 2018	<u>28,880</u>

6. REVENUE

The following table presents disaggregated revenue from continuing operations:

<i>In thousands</i>	Year ended December 31, 2018				
	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
Natural gas sales	\$ 670,662	\$ —	\$ 670,662	\$ —	\$ 670,662
Gas storage revenue, net	—	10,780	10,780	—	10,780
Asset management revenue, net	—	8,548	8,548	—	8,548
Appliance retail center revenue	—	5,595	5,595	—	5,595
Other revenue	—	—	—	572	572
Revenue from contracts with customers	670,662	24,923	695,585	572	696,157
Alternative revenue	8,989	—	8,989	—	8,989
Leasing revenue	997	—	997	—	997
Total operating revenues	\$ 680,648	\$ 24,923	\$ 705,571	\$ 572	\$ 706,143

NW Natural's revenue represents substantially all of NW Holdings' revenue and is recognized for both registrants when the obligation to customers is satisfied and in the amount expected to be received in exchange for transferring goods or providing services. Revenue from contracts with customers contain one performance obligation that is generally satisfied over time, using the output method based on time elapsed, due to the continuous nature of the service provided. The transaction price is determined per a set price agreed upon in the contract or dependent on regulatory tariffs. Customer accounts are settled on a monthly basis or paid at time of sale and based on historical experience. It is probable that we will collect substantially all of the consideration to which we are entitled.

NW Holdings and NW Natural do not have any material contract assets, as net accounts receivable and accrued unbilled revenue balances are unconditional and only involve the passage of time until such balances are billed and collected. NW Holdings and NW Natural do not have any material contract liabilities.

Revenue-based taxes are primarily franchise taxes, which are collected from NGD customers and remitted to taxing authorities. Beginning January 1, 2018, revenue taxes are included in operating revenues with an equal and offsetting expense recognized in operating expenses in the consolidated statements of comprehensive income.

Natural Gas Distribution

Natural gas sales. NW Natural's primary source of revenue is providing natural gas to customers in the NGD service territory, which includes residential, commercial, industrial and transportation customers. NGD revenue is generally recognized over time upon delivery of the gas commodity or service to the customer, and the amount of consideration received and recognized as revenue is dependent on the Oregon and Washington tariffs. Customer accounts are to be paid in full each month, and there is no right of return or warranty for services provided. Revenues include firm and interruptible sales and transportation services, franchise taxes recovered from the customer, late payment fees, service fees, and accruals for gas delivered but not yet billed (accrued unbilled revenue). The accrued unbilled

revenue balance is based on estimates of deliveries during the period from the last meter reading and management judgment is required for a number of factors used in this calculation, including customer use and weather factors.

We applied the significant financing practical expedient and have not adjusted the consideration NW Natural expects to receive from NGD customers for the effects of a significant financing component as all payment arrangements are settled annually. Due to the election of the right to invoice practical expedient, we do not disclose the value of unsatisfied performance obligations as of December 31, 2018.

Alternative revenue. Weather normalization (WARM) and decoupling mechanisms are considered to be alternative revenue programs. Alternative revenue programs are considered to be contracts between NW Natural and its regulator and are excluded from revenue from contracts with customers.

Leasing revenue. Leasing revenue primarily consists of rental revenue for small leases of property owned for NGD to third parties. The majority of the transactions are accounted for as operating leases and the revenue is recognized on a straight-line basis over the term of the lease agreement. Lease revenue is excluded from revenue from contracts with customers.

NW Natural Other

Gas storage revenue. NW Natural's other revenue includes gas storage activity, which includes Interstate Storage Services used to store natural gas for customers. Gas storage revenue is generally recognized over time as the gas storage service is provided to the customer and the amount of consideration received and recognized as revenue is dependent on set rates defined per the storage agreements. Noncash consideration in the form of dekatherms of natural gas is received as consideration for providing gas injection services to gas storage customers. This noncash consideration is measured at fair value using the average spot rate. Customer accounts are generally paid in full each month, and there is no right of return or warranty for services provided. Revenues include firm and

interruptible storage services, net of the profit sharing amount refunded to NGD customers.

Asset management revenue. Asset management revenue is generally recognized over time using a straight-line approach over the term of each contract, and the amount of consideration received and recognized as revenue is dependent on a variable pricing model. Variable revenues earned above guaranteed amounts are estimated and recognized at the end of each period using the most likely amount approach. Revenues include the optimization of the storage assets and pipeline capacity provided, net of the profit sharing amount refunded to NGD customers. Asset management accounts are settled on a monthly basis.

As of December 31, 2018, unrecognized revenue for the fixed component of the transaction price related to gas storage and asset management revenue was approximately \$56.0 million. Of this amount, approximately \$14.1 million will be recognized in 2019, \$11.7 million in 2020, \$10.7 million in 2021, \$7.0 million in 2022, \$5.8 million in 2023, and \$6.7 million thereafter. The amounts presented here are calculated using current contracted rates. On October 12, 2018, NW Natural filed a rate petition with FERC for revised maximum cost-based rates, which incorporated the new federal corporate income tax rate. The revised rates became effective November 1, 2018.

Appliance retail center revenue. NW Natural owns and operates an appliance store that is open to the public,

7. STOCK-BASED COMPENSATION

Stock-based compensation plans are designed to promote stock ownership in NW Holdings by employees and officers. These compensation plans include a Long Term Incentive Plan (LTIP), an ESPP, and a Restated SOP.

Long Term Incentive Plan

The LTIP is intended to provide a flexible, competitive compensation program for eligible officers and key employees. Under the LTIP, shares of NW Holdings common stock are authorized for equity incentive grants in the form of stock, restricted stock, restricted stock units, stock options, or performance shares. An aggregate of 1,100,000 shares were authorized for issuance as of December 31, 2018. Shares awarded under the LTIP may be purchased on the open market or issued as original shares.

Of the 1,100,000 shares of common stock authorized for LTIP awards at December 31, 2018, there were 574,787 shares available for issuance under any type of award. This assumes market, performance, and service-based grants currently outstanding are awarded at the target level. There were no outstanding grants of restricted stock or stock options under the LTIP at December 31, 2018 or 2017. The LTIP stock awards are compensatory awards for which compensation expense is based on the fair value of stock awards, with expense being recognized over the performance and vesting period of the outstanding awards. Forfeitures are recognized as they occur.

where customers can purchase natural gas home appliances. Revenue from the sale of appliances is recognized at the point in time in which the appliance is transferred to the third party responsible for delivery and installation services and when the customer has legal title to the appliance. It is required that the sale be paid for in full prior to transfer of legal title. The amount of consideration received and recognized as revenue varies with changes in marketing incentives and discounts offered to customers.

NW Holdings Other

NW Holdings' primary source of other revenue is providing water distribution services to customers. Water distribution revenue is generally recognized over time upon delivery of the water commodity or service to the customer, and the amount of consideration received and recognized as revenue is dependent on the Oregon, Washington and Idaho tariffs. Customer accounts are to be paid in full each month, and there is no right of return or warranty for services provided.

We applied the significant financing practical expedient and have not adjusted the consideration we expect to receive from water distribution customers for the effects of a significant financing component as all payment arrangements are settled annually. Due to the election of the right to invoice practical expedient, we do not disclose the value of unsatisfied performance obligations as of December 31, 2018.

Performance Shares

Since the LTIP's inception in 2001, performance shares, which incorporate market, performance, and service-based factors, have been granted annually with three-year performance periods. The following table summarizes performance share expense information:

<i>Dollars in thousands</i>	Shares ⁽¹⁾	Expense During Award Year ⁽²⁾	Total Expense for Award
Estimated award:			
2016-2018 grant ⁽³⁾	28,218	\$ 598	\$ 1,413
Actual award:			
2015-2017 grant	18,304	(346)	1,169
2014-2016 grant	31,388	168	1,685

⁽¹⁾ In addition to common stock shares, a participant also receives a dividend equivalent cash payment equal to the number of shares of common stock received on the award payout multiplied by the aggregate cash dividends paid per share during the performance period.

⁽²⁾ Amount represents the expense recognized in the third year of the vesting period noted above. For the 2015-2017 grant, targets were not met and expense was reversed during 2017 that had been previously recognized.

⁽³⁾ This represents the estimated number of shares to be awarded as of December 31, 2018 as certain performance share measures have been achieved. Amounts are subject to change with final payout amounts authorized by the Board of Directors in February 2019.

The aggregate number of performance shares granted and outstanding at the target and maximum levels were as follows:

Performance Period	Performance Share Awards Outstanding		2018	Cumulative Expense
	Target	Maximum	Expense	December 31, 2018
2016-18	24,421	48,842	\$ 598	\$ 1,413
2017-19	31,372	62,744	458	1,400
2018-20	—	—	—	—
Total	<u>55,793</u>	<u>111,586</u>	<u>\$ 1,056</u>	

For the 2016-2018 performance period, performance share awards are based on EPS and Return on Invested Capital (ROIC) factors and a total shareholder return (TSR factor) relative to the Dow Jones U.S. Gas Distribution peer group over the three-year performance period. Additionally, these plans are based on performance results achieved relative to specific core and non-core strategies (strategic factor). For the 2017-2019 performance period, performance share awards are based on the achievement of EPS and ROIC factors, which can be modified by a TSR factor relative to the performance of the Russell 2500 Utilities Index over the three-year performance period and a growth modifier based on accumulative EBITDA measure. For the 2018-2020 performance period, performance share awards are based on the achievement of a three-year ROIC threshold that must be met and a cumulative EPS factor, which can be modified by a TSR factor relative to the performance of the Russell 2500 Utilities Index over the three-year performance period. The 2018-2020 performance period allows for one of the performance factors to remain variable until the first quarter of the third year of the award period. As the performance factor will not be approved until the first quarter of 2020, there is not a mutual understanding of the award's key terms and conditions between NW Natural and the participants as of December 31, 2018, and therefore, no expense was recognized for the 2018-2020 performance period. NW Natural will calculate the grant date fair value and recognize expense once the final performance factor has been approved. If the target was achieved for the 2018 award, NW Holdings would grant 34,702 shares in the first quarter of 2020.

Compensation expense is recognized in accordance with accounting standards for stock-based compensation and calculated based on performance levels achieved and an estimated fair value using the Monte-Carlo method. The weighted-average grant date fair value of nonvested shares at December 31, 2018 and 2017 was \$57.05 and \$56.40 per share, respectively. The weighted-average grant date fair value of shares vested during the year was \$56.23 per share and there were no performance shares granted during the year for accounting purposes. As of December 31, 2018, there was \$1.1 million of unrecognized compensation expense related to the nonvested portion of performance awards expected to be recognized through 2019.

Restricted Stock Units

In 2012, RSUs began being granted under the LTIP instead of stock options under the Restated SOP. Generally, the RSUs awarded are forfeitable and include a performance-based threshold as well as a vesting period of four years from the grant date. Upon vesting, the RSU holder is issued one share of common stock plus a cash payment equal to the total amount of dividends paid per share between the grant date and vesting date of that portion of the RSU. The fair value of an RSU is equal to the closing market price of NW Holdings' common stock on the grant date. During 2018, total RSU expense was \$1.8 million compared to \$1.6 million in 2017 and \$1.5 million in 2016. As of December 31, 2018, there was \$3.1 million of unrecognized compensation cost from grants of RSUs, which is expected to be recognized over a period extending through 2023.

Information regarding the RSU activity is summarized as follows:

	Number of RSUs	Weighted - Average Price Per RSU
Nonvested, December 31, 2015	88,587	\$ 44.78
Granted	40,271	54.36
Vested	(29,488)	45.56
Forfeited	(9,397)	44.59
Nonvested, December 31, 2016	89,973	48.85
Granted	32,168	60.51
Vested	(35,341)	47.07
Forfeited	(2,278)	53.78
Nonvested, December 31, 2017	84,522	53.90
Granted	32,450	57.59
Vested	(32,689)	50.75
Forfeited	(1,603)	59.95
Nonvested, December 31, 2018	82,680	\$ 56.47

Restated Stock Option Plan

The NW Natural Restated SOP was terminated for new option grants in 2012; however, options granted before the plan terminated remain outstanding until the earlier of their expiration, forfeiture, or exercise and are now exercisable for shares of NW Holdings common stock. Any new grants of stock options will be made under NW Holdings' LTIP, however, no option grants have been awarded since 2012 and all stock options were vested as of December 31, 2015.

Options under the Restated SOP were granted to officers and key employees designated by a committee of the Board of Directors. All options were granted at an option price equal to the closing market price on the date of grant and may be exercised for a period of up to 10 years and seven days from the date of grant. Option holders may exchange shares they have owned for at least six months, valued at the current market price, to purchase shares at the option price.

Information regarding the Restated SOP activity is summarized as follows:

	Option Shares	Weighted - Average Price Per Share	Intrinsic Value (In millions)
Balance outstanding, December 31, 2015	352,688	\$ 44.00	\$ 2.3
Exercised	(172,525)	43.61	2.0
Forfeited	—	n/a	n/a
Balance outstanding, December 31, 2016	180,163	44.38	2.8
Exercised	(88,275)	44.33	1.8
Forfeited	(200)	41.15	n/a
Balance outstanding and exercisable, December 31, 2017	91,688	44.43	1.4
Exercised	(35,450)	43.61	0.8
Expired	(300)	43.29	n/a
Balance outstanding and exercisable, December 31, 2018	55,938	\$ 44.96	\$ 0.9

During 2018, cash of \$1.5 million was received for stock options exercised and \$0.2 million related tax benefit was recognized. The weighted-average remaining life of options exercisable and outstanding at December 31, 2018 was 1.69 years.

8. DEBT

Short-Term Debt

The primary source of short-term liquidity for NW Holdings is cash balances, dividends from its operating subsidiaries, in particular NW Natural, available cash from a multi-year credit facility, and short-term credit facilities it may enter into from time to time.

The primary source of short-term liquidity for NW Natural is from the sale of commercial paper and bank loans. NW Natural has a commercial paper program, and NW Holdings and NW Natural have separate bank facilities. In addition to issuing commercial paper or bank loans to meet working capital requirements, including seasonal requirements to finance gas purchases and accounts receivable, short-term debt may also be used to temporarily fund capital requirements. For NW Natural, commercial paper and bank loans are periodically refinanced through the sale of long-term debt or equity contributions from NW Holdings. NW Natural's commercial paper is sold through two commercial banks under an issuing and paying agency agreement and is supported by one or more unsecured revolving credit facilities. See "Credit Agreements" below.

At December 31, 2018 and 2017, NW Holdings had short-term debt outstanding of \$217.6 million and \$54.2 million, respectively, substantially all of which was recorded at NW Natural and was comprised primarily of NW Natural's commercial paper. The weighted average interest rate of commercial paper outstanding at December 31, 2018 and 2017 was 3.0% and 1.9%, respectively.

Employee Stock Purchase Plan

NW Holdings' ESPP allows employees of NW Holdings, NW Natural and certain designated subsidiaries to purchase common stock at 85% of the closing price on the trading day immediately preceding the initial offering date, which is set annually. Each eligible employee may purchase up to \$21,205 worth of stock through payroll deductions over a period defined by the Board of Directors, with shares issued at the end of the subscription period.

Stock-Based Compensation Expense

Stock-based compensation expense is recognized as operations and maintenance expense or is capitalized as part of construction overhead at the entity at which the award recipient is employed. The following table summarizes the NW Holdings' financial statement impact, substantially all of which was recorded at NW Natural, of stock-based compensation under the LTIP, Restated SOP and ESPP:

In thousands	2018	2017	2016
Operations and maintenance expense, for stock-based compensation	\$ 2,489	\$ 2,354	\$ 2,370
Income tax benefit	(659)	(930)	(924)
Net stock-based compensation effect on net income (loss)	\$ 1,830	\$ 1,424	\$ 1,446
Amounts capitalized for stock-based compensation	\$ 531	\$ 528	\$ 554

The carrying cost of commercial paper approximates fair value using Level 2 inputs, due to the short-term nature of the notes. See Note 2 for a description of the fair value hierarchy. At December 31, 2018, NW Natural's commercial paper had a maximum remaining maturity of 46 days and an average remaining maturity of 22 days.

Credit Agreements

NW Holdings

In October 2018, NW Holdings entered into a \$100.0 million credit agreement, with a feature that allows it to request increases in the total commitment amount, up to a maximum of \$150.0 million. The maturity date of the agreement is October 2, 2023, with available extensions of commitments for two additional one-year periods, subject to lender approval.

The NW Holdings credit agreement permits the issuance of letters of credit in an aggregate amount of up to \$40.0 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. The credit agreement requires NW Holdings to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Holdings was in compliance with this covenant at December 31, 2018.

The agreement also requires NW Holdings to maintain debt ratings (which are defined by a formula using NW Natural's credit ratings in the event NW Holdings does not have a credit rating) with Standard & Poor's (S&P) and Moody's Investors Service, Inc. (Moody's) and notify the lenders of any change in its senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Holdings' debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the credit agreement. Rather, interest rates on any loans outstanding under the credit agreements are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the credit agreements when ratings are changed. NW Holdings does not currently maintain ratings with S&P or Moody's.

There were no outstanding balances and no letters of credit issued or outstanding under the NW Holdings agreement at December 31, 2018. NW Holdings had \$2.8 million of letters of credit issued and outstanding, separate from the aforementioned credit agreement, at December 31, 2018.

NW Natural

In October 2018, NW Natural entered into a new multi-year credit agreement for unsecured revolving loans totaling \$300.0 million, with a feature that allows NW Natural to request increases in the total commitment amount, up to a maximum of \$450.0 million. The maturity date of the agreement is October 2, 2023 with available extensions of commitments for two additional one-year periods, subject to lender approval. The new credit agreement is substantially similar to the prior credit agreement which was terminated upon the closing of the New Credit Agreement. The new credit agreement permits the issuance of letters of credit in an aggregate amount of up to \$60.0 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. There were no outstanding balances under NW Natural's prior credit agreement or the new credit agreement and no letters of credit issued or outstanding at December 31, 2018 and 2017.

NW Natural's prior credit agreement and the new credit agreement require NW Natural to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Natural was in compliance with this covenant at December 31, 2018 and 2017.

The new credit agreement also requires NW Natural to maintain credit ratings with S&P and Moody's and notify the lenders of any change in NW Natural's senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Natural's debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the new credit agreement. Rather, interest rates on any loans outstanding under the new credit agreement are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the new credit agreement when ratings are changed.

Long-Term Debt

NW Natural's issuance of FMBs, which includes NW Natural's medium-term notes, under the Mortgage and Deed of Trust (Mortgage) is limited by eligible property, adjusted net earnings, and other provisions of the Mortgage. The Mortgage constitutes a first mortgage lien on substantially all of NW Natural's NGD property.

Maturities and Outstanding Long-Term Debt

Retirement of long-term debt for each of the annual periods through December 31, 2023 and thereafter are as follows:

<i>In thousands</i>	Long-term debt maturities
2019	\$ 30,000
2020	75,000
2021	60,000
2022	—
2023	90,000
Thereafter	484,700

The following table presents debt outstanding as of December 31:

<i>In thousands</i>	2018	2017
NW Natural		
<u>First Mortgage Bonds:</u>		
6.600% Series due 2018	\$ —	\$ 22,000
1.545% Series due 2018	—	75,000
8.310% Series due 2019	10,000	10,000
7.630% Series due 2019	20,000	20,000
5.370% Series due 2020	75,000	75,000
9.050% Series due 2021	10,000	10,000
3.176% Series due 2021	50,000	50,000
3.542% Series due 2023	50,000	50,000
5.620% Series due 2023	40,000	40,000
7.720% Series due 2025	20,000	20,000
6.520% Series due 2025	10,000	10,000
7.050% Series due 2026	20,000	20,000
3.211% Series due 2026	35,000	35,000
7.000% Series due 2027	20,000	20,000
2.822% Series due 2027	25,000	25,000
6.650% Series due 2027	19,700	19,700
6.650% Series due 2028	10,000	10,000
7.740% Series due 2030	20,000	20,000
7.850% Series due 2030	10,000	10,000
5.820% Series due 2032	30,000	30,000
5.660% Series due 2033	40,000	40,000
5.250% Series due 2035	10,000	10,000
4.000% Series due 2042	50,000	50,000
4.136% Series due 2046	40,000	40,000
3.685% Series due 2047	75,000	75,000
4.110% Series due 2048	50,000	—
	<u>739,700</u>	<u>786,700</u>
Less: current maturities	30,000	97,000
Total long-term debt	<u>\$ 709,700</u>	<u>\$ 689,700</u>
 Other NW Holdings Entities:		
Long-term debt obligations	\$ 2,113	\$ —
 NW Holdings:		
Long-term debt, gross	\$ 741,813	\$ 786,700
Less: current maturities	30,000	97,000
Total long-term debt	<u>\$ 711,813</u>	<u>\$ 689,700</u>

9. PENSION AND OTHER POSTRETIREMENT BENEFIT COSTS

NW Natural maintains a qualified non-contributory defined benefit pension plan, non-qualified supplemental pension plans for eligible executive officers and other key employees, and other postretirement employee benefit plans. NW Natural also has a qualified defined contribution plan (Retirement K Savings Plan) for all eligible employees. The qualified defined benefit pension plan and Retirement K Savings Plan have plan assets, which are held in qualified trusts to fund retirement benefits.

First Mortgage Bonds

In September 2018, NW Natural issued \$50.0 million of FMBs with a coupon rate of 4.110%, due in 2048.

In September 2017, NW Natural issued \$100.0 million of FMBs consisting of \$25.0 million with a coupon rate of 2.822% and a maturity date in 2027 and \$75.0 million with a coupon rate of 3.685% and a maturity date in 2047.

Retirements of Long-Term Debt

In March 2018, NW Natural retired \$22.0 million of FMBs with a coupon rate of 6.600%, and retired \$75.0 million of FMBs with a coupon rate of 1.545% in December 2018.

In August 2017, NW Natural retired \$40.0 million of FMBs with a coupon rate of 7.000%.

Fair Value of Long-Term Debt

NW Holdings' and NW Natural's outstanding debt does not trade in active markets. The fair value of debt is estimated using natural gas distribution companies with similar credit ratings, terms, and remaining maturities to NW Holdings' and NW Natural's debt that actively trade in public markets. Substantially all outstanding debt at NW Holdings is comprised of NW Natural debt. These valuations are based on Level 2 inputs as defined in the fair value hierarchy. See Note 2.

The following table provides an estimate of the fair value of NW Natural's long-term debt, including current maturities of long-term debt, using market prices in effect on the valuation date:

<i>In thousands</i>	December 31,	
	2018	2017
Gross long-term debt	\$ 739,700	\$ 786,700
Unamortized debt issuance costs	(5,577)	(6,813)
Carrying amount	\$ 734,123	\$ 779,887
Estimated fair value	\$ 760,222	\$ 853,339

Effective January 1, 2007 and 2010, the qualified defined benefit pension plans and postretirement benefits for non-union employees and union employees, respectively, were closed to new participants.

Non-union and union employees hired or re-hired after December 31, 2006 and 2009, respectively, and employees of NW Natural subsidiaries are provided an enhanced Retirement K Savings Plan benefit.

The following table provides a reconciliation of the changes in NW Natural's benefit obligations and fair value of plan assets, as applicable, for NW Natural's pension and other postretirement benefit plans, excluding the Retirement K Savings Plan, and a summary of the funded status and amounts recognized in NW Holdings' and NW Natural's consolidated balance sheets as of December 31:

<i>In thousands</i>	Postretirement Benefit Plans			
	Pension Benefits		Other Benefits	
	2018	2017	2018	2017
Reconciliation of change in benefit obligation:				
Obligation at January 1	\$ 486,289	\$ 457,839	\$ 28,927	\$ 29,395
Service cost	7,185	7,090	282	341
Interest cost	16,991	18,111	964	1,141
Net actuarial (gain) loss	(32,979)	34,829	(327)	(213)
Benefits paid ⁽¹⁾	(21,918)	(31,580)	(1,674)	(1,737)
Obligation at December 31	<u>\$ 455,568</u>	<u>\$ 486,289</u>	<u>\$ 28,172</u>	<u>\$ 28,927</u>
Reconciliation of change in plan assets:				
Fair value of plan assets at January 1	\$ 287,925	\$ 257,714	\$ —	\$ —
Actual return on plan assets	(25,925)	40,308	—	—
Employer contributions	17,715	21,483	1,674	1,737
Benefits paid ⁽¹⁾	(21,918)	(31,580)	(1,674)	(1,737)
Fair value of plan assets at December 31	<u>\$ 257,797</u>	<u>\$ 287,925</u>	<u>\$ —</u>	<u>\$ —</u>
Funded status at December 31	<u>\$ (197,771)</u>	<u>\$ (198,364)</u>	<u>\$ (28,172)</u>	<u>\$ (28,927)</u>

⁽¹⁾ In 2017, NW Natural completed a partial buy-out of its qualified defined benefit pension plan in which \$9.3 million of plan assets and \$8.7 million of liabilities were transferred to an insurer to provide annuities for buy-out plan participants.

NW Natural's qualified defined benefit pension plan had a projected benefit obligation of \$420.2 million and \$449.7 million at December 31, 2018 and 2017, respectively, and fair values of plan assets of \$257.8 million and \$287.9 million, respectively. The plan had an accumulated benefit obligation of \$385.9 million and \$410.3 million at December 31, 2018 and 2017, respectively.

The following table presents amounts realized through regulatory assets or in other comprehensive loss (income) for the years ended December 31:

<i>In thousands</i>	Regulatory Assets						Other Comprehensive Loss (Income)		
	Pension Benefits			Other Postretirement Benefits			Pension Benefits		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Net actuarial loss (gain)	\$ 14,261	\$ 12,177	\$ 14,005	\$ (327)	\$ (214)	\$ (1,488)	\$ (677)	\$ 2,777	\$ (1,196)
Settlement Loss	—	—	—	—	—	—	—	—	193
Amortization of:									
Prior service cost	(42)	(127)	(230)	468	468	468	—	—	—
Actuarial loss	(18,761)	(14,802)	(13,238)	(448)	(696)	(705)	(1,052)	(946)	1,386
Total	<u>\$ (4,542)</u>	<u>\$ (2,752)</u>	<u>\$ 537</u>	<u>\$ (307)</u>	<u>\$ (442)</u>	<u>\$ (1,725)</u>	<u>\$ (1,729)</u>	<u>\$ 1,831</u>	<u>\$ 383</u>

The following table presents amounts recognized in regulatory assets and accumulated other comprehensive loss (AOCL) at December 31:

<i>In thousands</i>	Regulatory Assets				AOCL	
	Pension Benefits		Other Postretirement Benefits		Pension Benefits	
	2018	2017	2018	2017	2018	2017
Prior service cost (credit)	\$ 7	\$ 49	\$ (1,738)	\$ (2,206)	\$ —	\$ —
Net actuarial loss	170,535	175,035	6,189	6,964	11,537	13,266
Total	<u>\$ 170,542</u>	<u>\$ 175,084</u>	<u>\$ 4,451</u>	<u>\$ 4,758</u>	<u>\$ 11,537</u>	<u>\$ 13,266</u>

The following table presents amounts recognized by NW Holdings and NW Natural in AOCL and the changes in AOCL related to NW Natural's non-qualified employee benefit plans:

<i>In thousands</i>	Year Ended December 31,	
	2018	2017
Beginning balance	\$ (8,438)	\$ (6,951)
Amounts reclassified to AOCL	642	(2,794)
Amounts reclassified from AOCL:		
Amortization of actuarial losses	1,052	946
Total reclassifications before tax	1,694	(1,848)
Tax expense (benefit)	(444)	361
Total reclassifications for the period	1,250	(1,487)
Ending balance	\$ (7,188)	\$ (8,438)

In 2019, NW Natural will amortize an estimated \$13.7 million from regulatory assets to net periodic benefit costs, consisting of \$14.2 million of actuarial losses offset by \$0.5 million of prior service credits. A total of \$0.6 million will be amortized from AOCL to earnings related to actuarial losses in 2019.

The assumed discount rate for NW Natural's pension plan and other postretirement benefit plans was determined independently based on the FTSE Above Median Curve (discount rate curve), which uses high quality corporate bonds rated AA- or higher by S&P or Aa3 or higher by Moody's. The discount rate curve was applied to match the estimated cash flows in each of the plans to reflect the timing and amount of expected future benefit payments for these plans.

The assumed expected long-term rate of return on plan assets for NW Natural's qualified pension plan was developed using a weighted-average of the expected returns for the target asset portfolio. In developing the expected long-term rate of return assumption, consideration was given to the historical performance of each asset class in which the plan's assets are invested and the target asset allocation for plan assets.

The investment strategy and policies for qualified pension plan assets held in the retirement trust fund were approved by the NW Natural Retirement Committee, which is composed of senior management with the assistance of an outside investment consultant. The policies set forth the guidelines and objectives governing the investment of plan assets. Plan assets are invested for total return with appropriate consideration for liquidity, portfolio risk, and return expectations. All investments are expected to satisfy the prudent investments rule under the Employee Retirement Income Security Act of 1974. The approved asset classes may include cash and short-term investments, fixed income, common stock and convertible securities, absolute and real return strategies, and real estate. Plan assets may be invested in separately managed accounts or in commingled or mutual funds. Investment re-balancing takes place periodically as needed, or when significant cash flows occur, in order to maintain the allocation of assets within the stated target ranges. The retirement trust fund is not currently invested in NW Holdings or NW Natural securities.

The following table presents the NW Natural pension plan asset target allocation at December 31, 2018:

Asset Category	Target Allocation
Long government/credit	20%
U.S. large cap equity	18
Non-U.S. equity	18
Absolute return strategies	12
U.S. small/mid cap equity	10
Real estate funds	7
High yield bonds	5
Emerging markets equity	5
Emerging market debt	5

Non-qualified supplemental defined benefit plan obligations were \$35.4 million and \$36.6 million at December 31, 2018 and 2017, respectively. These plans are not subject to regulatory deferral, and the changes in actuarial gains and losses, prior service costs, and transition assets or obligations are recognized in AOCL, net of tax until they are amortized as a component of net periodic benefit cost. These are unfunded, non-qualified plans with no plan assets; however, a significant portion of the obligations is indirectly funded with company and trust-owned life insurance and other assets.

Other postretirement benefit plans are unfunded plans but are subject to regulatory deferral. The actuarial gains and losses, prior service costs, and transition assets or obligations for these plans are recognized as a regulatory asset.

Net periodic benefit costs consist of service costs, interest costs, the expected returns on plan assets, and the amortization of gains and losses and prior service costs. The gains and losses are the sum of the actuarial and asset gains and losses throughout the year and are amortized over the average remaining service period of active participants. The asset gains and losses are based in part on a market-related valuation of assets. The market-related valuation reflects differences between expected returns and actual investment returns with the differences recognized over a two-year period from the year in which they occur, thereby reducing year-to-year net periodic benefit cost volatility.

The service cost component of net periodic benefit cost for NW Natural pension and other postretirement benefit plans is recognized in operations and maintenance expense in the consolidated statements of comprehensive income. The other non-service cost components are recognized in other income (expense), net in the consolidated statements of comprehensive income. The following table provides the components of net periodic benefit cost for NW Natural's pension and other postretirement benefit plans for the years ended December 31:

<i>In thousands</i>	Pension Benefits			Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Service cost	\$ 7,185	\$ 7,090	\$ 7,083	\$ 282	\$ 341	\$ 391
Interest cost	16,991	18,111	18,399	964	1,141	1,175
Expected return on plan assets	(20,639)	(20,433)	(20,054)	—	—	—
Amortization of prior service costs	43	127	231	(468)	(468)	(468)
Amortization of net actuarial loss	19,813	15,748	14,624	448	696	705
Settlement expense	—	—	193	—	—	—
Net periodic benefit cost	23,393	20,643	20,476	1,226	1,710	1,803
Amount allocated to construction	(2,764)	(6,597)	(5,746)	(98)	(587)	(600)
Amount deferred to regulatory balancing account	(10,314)	(6,542)	(6,252)	—	—	—
Net amount charged to expense	\$ 10,315	\$ 7,504	\$ 8,478	\$ 1,128	\$ 1,123	\$ 1,203

Net periodic benefit costs are reduced by amounts capitalized to NGD plant based on approximately 25% to 35% payroll overhead charge. In addition, a certain amount of net periodic benefit costs were recorded to the regulatory balancing account, representing net periodic pension expense for the qualified plan above the amount set in rates, as approved by the OPUC, from 2011 through October 31, 2018. On October 26, 2018 the OPUC ordered that the balancing account be frozen as of October 31, 2018, with recovery subject to future proceedings. Effective November 1, 2018 the OPUC authorized an additional \$8.1 million to be included in rates for defined benefit pension plan expenses.

The following table provides the assumptions used in measuring periodic benefit costs and benefit obligations for the years ended December 31:

	Pension Benefits			Other Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Assumptions for net periodic benefit cost:						
Weighted-average discount rate	3.51%	3.99%	4.17%	3.44%	3.85%	4.00%
Rate of increase in compensation	3.25-4.5%	3.25-4.5%	3.25-4.5%	n/a	n/a	n/a
Expected long-term rate of return	7.50%	7.50%	7.50%	n/a	n/a	n/a
Assumptions for year-end funded status:						
Weighted-average discount rate	4.20%	3.52%	4.00%	4.13%	3.44%	3.85%
Rate of increase in compensation	3.25-3.5%	3.25-4.5%	3.25-4.5%	n/a	n/a	n/a
Expected long-term rate of return	7.50%	7.50%	7.50%	n/a	n/a	n/a

The assumed annual increase in health care cost trend rates used in measuring other postretirement benefits as of December 31, 2018 was 6.75%. These trend rates apply to both medical and prescription drugs. Medical costs and prescription drugs are assumed to decrease gradually each year to a rate of 4.75% by 2025.

Mortality assumptions are reviewed annually and are updated for material changes as necessary. In 2018, mortality rate assumptions were updated from RP-2006 mortality tables for employees and healthy annuitants with a fully generational projection using scale MP-2017 to RP-2014 mortality tables using scale MP-2018, which partially offset increases of the projected benefit obligation.

Assumed health care cost trend rates can have a significant effect on the amounts reported for the health care plans; however, other postretirement benefit plans have a cap on the amount of costs reimbursable by NW Natural.

A one percentage point change in assumed health care cost trend rates would have the following effects:

<i>In thousands</i>	1% Increase	1% Decrease
Effect on net periodic postretirement health care benefit cost	\$ 43	\$ (39)
Effect on the accumulated postretirement benefit obligation	622	(560)

The following table provides information regarding employer contributions and benefit payments for NW Natural's qualified pension plan, non-qualified pension plans, and other postretirement benefit plans for the years ended December 31, and estimated future contributions and payments:

<i>In thousands</i>	Pension Benefits	Other Benefits
Employer Contributions:		
2017	\$ 21,483	\$ 1,737
2018	17,715	1,674
2019 (estimated)	13,318	1,787
Benefit Payments:		
2016	20,959	1,732
2017	31,580	1,737
2018	21,918	1,674
Estimated Future Benefit Payments:		
2019	22,699	1,787
2020	23,622	1,846
2021	24,516	1,930
2022	25,316	1,941
2023	26,074	1,993
2024-2028	145,917	9,628

Employer Contributions to Company-Sponsored Defined Benefit Pension Plans

NW Natural makes contributions to its qualified defined benefit pension plans based on actuarial assumptions and estimates, tax regulations, and funding requirements under federal law. The Pension Protection Act of 2006 (the Act) established funding requirements for defined benefit plans. The Act establishes a 100% funding target over seven years for plan years beginning after December 31, 2008. In 2012 the Moving Ahead for Progress in the 21st Century Act (MAP-21) legislation changed several provisions affecting pension plans, including temporary funding relief and Pension Benefit Guaranty Corporation (PBGC) premium increases, which reduces the level of minimum required contributions in the near-term but generally increases contributions in the long-run and increases the operational costs of running a pension plan. In 2014, the Highway and Transportation Funding Act (HATFA) was signed and extended funding relief for an additional five years.

The qualified defined benefit pension plan was underfunded by \$162.4 million at December 31, 2018. Including the impacts of MAP-21 and HATFA, NW Natural made cash contributions totaling \$15.5 million to its qualified defined benefit pension plan for 2018. During 2019, NW Natural expects to make contributions of approximately \$11.0 million to this plan.

Multiemployer Pension Plan

In addition to the NW Natural-sponsored defined benefit plans presented above, prior to 2014 NW Natural contributed to a multiemployer pension plan for its NGD union employees known as the Western States Office and Professional Employees International Union Pension Fund (Western States Plan). The plan's employer identification number is 94-6076144. Effective December 22, 2013, NW

Natural withdrew from the plan, which was a noncash transaction. Vested participants will receive all benefits accrued through the date of withdrawal. As the plan was underfunded at the time of withdrawal, NW Natural was assessed a withdrawal liability of \$8.3 million, plus interest, which requires NW Natural to pay \$0.6 million each year to the plan for 20 years beginning in July 2014. The cost of the withdrawal liability was deferred to a regulatory account on the balance sheet.

Payments were \$0.6 million for 2018, and as of December 31, 2018 the liability balance was \$6.8 million. For 2017 and 2016, contributions to the plan were \$0.6 million and \$0.6 million, respectively, which was approximately 4% to 6% of the total contributions to the plan by all employer participants in those years.

Defined Contribution Plan

NW Natural's Retirement K Savings Plan is a qualified defined contribution plan under Internal Revenue Code Sections 401(a) and 401(k). NW Natural contributions totaled \$6.5 million, \$5.4 million, and \$4.6 million for 2018, 2017, and 2016, respectively. The Retirement K Savings Plan includes an Employee Stock Ownership Plan.

Deferred Compensation Plans

NW Natural's supplemental deferred compensation plans for eligible officers and senior managers are non-qualified plans. These plans are designed to enhance the retirement savings of employees and to assist them in strengthening their financial security by providing an incentive to save and invest regularly.

Fair Value

Below is a description of the valuation methodologies used for assets measured at fair value. In cases where NW Natural's pension plan is invested through a collective trust fund or mutual fund, the fund's market value is utilized. Market values for investments directly owned are also utilized.

U.S. EQUITY. These are non-published net asset value (NAV) assets. The non-published NAV assets consist of commingled trusts where NAV is not published but the investment can be readily disposed of at NAV or market value. The underlying investments in this asset class includes investments primarily in U.S. common stocks.

INTERNATIONAL/GLOBAL EQUITY. These are Level 1 and non-published NAV assets. The Level 1 asset is a mutual fund, and the non-published NAV assets consist of commingled trusts where the NAV/unit price is not published but the investment can be readily disposed of at the NAV/unit price. The mutual funds has a readily determinable fair value, including a published NAV, and the commingled trusts are valued at unit price. This asset class includes investments primarily in foreign equity common stocks.

LIABILITY HEDGING. These are non-published NAV assets. The non-published NAV assets consist of commingled trusts where NAV is not published but the investment can be readily disposed of at NAV or market value. The underlying investments in this asset class include long duration fixed income investments primarily in U.S. treasuries, U.S. government agencies, municipal securities, mortgage-

backed securities, asset-backed securities, as well as U.S. and international investment-grade corporate bonds.

OPPORTUNISTIC. These are non-published NAV assets consisting of commingled trusts where the investments can be readily disposed of at unit price, and a hedge fund of funds where the valuation is not published. This hedge fund of funds is winding down. Based on recent dispositions, NW Natural believes the remaining investment is fairly valued. The hedge fund of funds is valued at the weighted average value of investments in various hedge funds, which in turn are valued at the closing price of the underlying securities. This asset class includes investments in emerging market debt, leveraged loans, REITs, high yield bonds, a commodities fund, and a hedge fund of funds.

ABSOLUTE RETURN STRATEGY. This is a non-published NAV asset consisting of a hedge fund of funds where the valuation is not published. This hedge fund of funds is winding down. Based on recent dispositions, NW Natural believes the remaining investment is fairly valued. The hedge fund of funds is valued at the weighted average value of investments in various hedge funds, which in turn are valued at the closing price of the underlying securities. This asset class primarily includes investments in common stocks and fixed income securities.

The following tables present the fair value of NW Natural's plan assets, including outstanding receivables and liabilities, of NW Natural's retirement trust fund:

<i>In thousands</i>		December 31, 2018				
Investments	Level 1	Level 2	Level 3	Non-Published NAV ⁽¹⁾	Total	
US equity	\$ —	\$ —	\$ —	\$ 85,233	\$ 85,233	
International / Global equity	24,994	—	—	70,017	95,011	
Liability hedging	—	—	—	45,659	45,659	
Opportunistic	—	—	—	23,186	23,186	
Cash and cash equivalents	—	—	—	8,707	8,707	
Total investments	<u>\$ 24,994</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 232,802</u>	<u>\$ 257,796</u>	
		December 31, 2017				
Investments	Level 1	Level 2	Level 3	Non-Published NAV ⁽¹⁾	Total	
US equity	\$ —	\$ —	\$ —	\$ 98,375	\$ 98,375	
International / Global equity	21,211	—	—	84,818	106,029	
Liability hedging	—	—	—	53,981	53,981	
Opportunistic	—	—	—	23,895	23,895	
Cash and cash equivalents	82	—	—	5,533	5,615	
Total investments	<u>\$ 21,293</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 266,602</u>	<u>\$ 287,895</u>	
		December 31,				
		2018	2017			
Receivables:						
Accrued interest and dividend income		\$ 1	\$ 30			
Due from broker for securities sold		—	—			
Total receivables		<u>\$ 1</u>	<u>\$ 30</u>			
<u>Liabilities:</u>						
Due to broker for securities purchased		\$ —	\$ —			
Total investment in retirement trust		<u>\$ 257,797</u>	<u>\$ 287,925</u>			

⁽¹⁾ The fair value for these investments is determined using Net Asset Value per share (NAV) as of December 31, as a practical expedient, and therefore they are not classified within the fair value hierarchy. These investments primarily consist of institutional investment products, for which the NAV is generally not publicly available.

CASH AND CASH EQUIVALENTS. These are Level 1 and non-published NAV assets. The Level 1 assets consist of cash in U.S. dollars, which can be readily disposed of at face value. The non-published NAV assets represent mutual funds without published NAV's but the investment can be readily disposed of at the NAV. The mutual funds are valued at the NAV of the shares held by the plan at the valuation date.

The preceding valuation methods may produce a fair value calculation that is not indicative of net realizable value or reflective of future fair values. Although we believe these valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain investments could result in a different fair value measurement at the reporting date.

Investment securities are exposed to various financial risks including interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of NW Natural's investment securities will occur in the near term and such changes could materially affect NW Natural's investment account balances and the amounts reported as plan assets available for benefit payments.

10. INCOME TAX

The following table provides a reconciliation between income taxes calculated at the statutory federal tax rate and the provision for income taxes reflected in the NW Holdings and NW Natural statements of comprehensive income or loss for December 31:

<i>Dollars in thousands</i>	NW Holdings			NW Natural		
	2018	2017	2016	2018	2017	2016
Income taxes at federal statutory rate	\$ 19,222	\$ 39,578	\$ 36,901	\$ 19,434	\$ 39,624	\$ 37,137
Increase (decrease):						
State income tax, net of federal	4,927	5,066	4,844	4,982	5,072	4,858
Differences required to be flowed-through by regulatory commissions	1,302	2,357	2,357	1,302	2,357	2,357
Effect of the TCJA	—	(3,376)	—	—	(2,956)	—
Deferred tax rate differential post-TCJA	(76)	—	—	(75)	—	—
Other, net	(1,184)	(2,617)	(1,091)	(1,184)	(2,619)	(1,077)
Total provision for income taxes	<u>\$ 24,191</u>	<u>\$ 41,008</u>	<u>\$ 43,011</u>	<u>\$ 24,459</u>	<u>\$ 41,478</u>	<u>\$ 43,275</u>
Effective tax rate	<u>26.4%</u>	<u>36.3%</u>	<u>40.8%</u>	<u>26.4%</u>	<u>36.6%</u>	<u>40.8%</u>

The NW Holdings and NW Natural effective income tax rates for 2018 compared to 2017 changed primarily as a result of the lower federal corporate income tax rate provided for by the TCJA. The effective tax rates for 2017 compared to 2016 changed primarily as a result of the lower

federal corporate income tax rate provided for by the TCJA and NW Natural's increased benefits from the equity portion of AFUDC and excess tax benefits related to stock based compensation.

The provision for current and deferred income taxes consists of the following at December 31:

<i>In thousands</i>	NW Holdings			NW Natural		
	2018	2017	2016	2018	2017	2016
Current						
Federal	\$ 8,953	\$ 19,345	\$ 10,042	\$ 9,127	\$ 19,304	\$ 10,158
State	3,785	5,963	3,116	3,846	5,956	3,131
	<u>12,738</u>	<u>25,308</u>	<u>13,158</u>	<u>12,973</u>	<u>25,260</u>	<u>13,289</u>
Deferred						
Federal	9,001	13,869	25,473	9,025	14,371	25,581
State	2,452	1,831	4,380	2,461	1,847	4,405
	<u>11,453</u>	<u>15,700</u>	<u>29,853</u>	<u>11,486</u>	<u>16,218</u>	<u>29,986</u>
Income tax provision	<u>\$ 24,191</u>	<u>\$ 41,008</u>	<u>\$ 43,011</u>	<u>\$ 24,459</u>	<u>\$ 41,478</u>	<u>\$ 43,275</u>

The following table summarizes the tax effect of significant items comprising NW Holdings and NW Natural's deferred income tax balances recorded at December 31:

<i>In thousands</i>	NW Holdings		NW Natural	
	2018	2017 ⁽¹⁾	2018	2017
Deferred tax liabilities:				
Plant and property	\$ 288,385	\$ 278,735	\$ 303,186	\$ 296,113
Pension and postretirement obligations	27,135	23,352	27,135	23,352
Income tax regulatory asset	21,403	22,209	21,402	22,209
Other	1,061	2,766	537	2,250
Total deferred income tax liabilities	<u>\$ 337,984</u>	<u>\$ 327,062</u>	<u>\$ 352,260</u>	<u>\$ 343,924</u>
Deferred income tax assets:				
Income tax regulatory liability	\$ 57,469	\$ 56,470	\$ 57,469	\$ 56,470
Alternative minimum tax credit carryforward	52	66	52	66
Total deferred income tax assets	<u>\$ 57,521</u>	<u>\$ 56,536</u>	<u>\$ 57,521</u>	<u>\$ 56,536</u>
Total net deferred income tax liabilities	<u>\$ 280,463</u>	<u>\$ 270,526</u>	<u>\$ 294,739</u>	<u>\$ 287,388</u>

⁽¹⁾Amounts have been reclassified among categories to conform to current period presentation.

At December 31, 2018 and 2017, regulatory income tax assets of \$19.1 million and \$21.3 million, respectively, were recorded by NW Natural, a portion of which is recorded in current assets. These regulatory income tax assets primarily represent future rate recovery of deferred tax liabilities, resulting from differences in NGD plant financial statement and tax bases and NGD plant removal costs, which were previously flowed through for rate making purposes and to take into account the additional future taxes, which will be generated by that recovery. These deferred tax liabilities, and the associated regulatory income tax assets, are currently being recovered through customer rates. At December 31, 2018 and 2017, regulatory income tax assets of \$2.3 million and \$0.9 million, respectively, were recorded by NW Natural, representing future recovery of deferred tax liabilities resulting from the equity portion of AFUDC.

At December 31, 2018 and 2017, deferred tax assets of \$57.5 million and \$56.5 million, respectively, were recorded by NW Natural representing the future income tax benefit associated with the excess deferred income tax regulatory liability recorded as a result of the lower federal corporate income tax rate provided for by the TCJA. At December 31, 2018 and 2017, regulatory liability balances representing the net tax benefit of the change in deferred taxes as a result of the TCJA of \$217.1 million and \$213.3 million, respectively, were recorded by NW Natural.

NW Natural's natural gas utility rates include an allowance to provide for the recovery of the anticipated provision for income taxes incurred as a result of providing regulated services. As a result of the 21 percent federal corporate income tax rate enacted in 2017, NW Natural recorded an additional regulatory liability in 2018 reflecting the estimated net reduction in the provision for income taxes. This revenue deferral is based on the estimated net benefit to customers and includes a gross-up for income taxes. As of December 31, 2018, a regulatory liability of \$8.2 million, including accrued interest, was recorded to reflect this estimated revenue deferral.

NW Holdings and NW Natural assess the available positive and negative evidence to estimate if sufficient taxable income will be generated to utilize their respective existing deferred tax assets. Based upon this assessment, NW Holdings and NW Natural determined that it is more likely than not that all of their respective deferred tax assets recorded as of December 31, 2018 will be realized.

Uncertain tax positions are accounted for in accordance with accounting standards that require an assessment of the anticipated settlement outcome of material uncertain tax positions taken in a prior year, or planned to be taken in the current year. Until such positions are sustained, the uncertain tax benefits resulting from such positions would not be recognized. No reserves for uncertain tax positions were recorded as of December 31, 2018, 2017, or 2016.

NW Holdings files a consolidated U.S. federal income tax return that includes NW Natural. Income tax expense is allocated on a separate company basis.

The federal income tax returns for tax years 2014 and earlier are closed by statute. The IRS Compliance Assurance Process (CAP) examination of the 2015, and

2016 tax years have been completed. There were no material changes to these returns as filed. The 2017 and 2018 tax years are currently under IRS CAP examination. Our 2019 CAP application has been accepted by the IRS. Under the CAP program, NW Holdings and NW Natural work with the IRS to identify and resolve material tax matters before the tax return is filed each year.

As of December 31, 2018, income tax years 2015 through 2018 remain open for state examination. The State of Oregon is currently examining the Oregon corporate income tax returns for tax years 2015, 2016, and 2017. No material changes are anticipated as a result of this examination.

U.S. Federal TCJA Matters

On December 22, 2017, the TCJA was enacted and lowered the U.S. federal corporate income tax rate to 21% from the existing maximum rate of 35%, effective for the tax year beginning January 1, 2018. The TCJA included specific provisions related to regulated public utilities that provided for the continued deductibility of interest expense and the elimination of bonus tax depreciation for property both acquired and placed in service on or after January 1, 2018.

Under pre-TCJA law, business interest was generally deductible in the determination of taxable income. The TCJA imposed a new limitation on the deductibility of net business interest expense in excess of approximately 30 percent of adjusted taxable income. Taxpayers operating in the trade or business of a regulated utility are excluded from these new interest expense limitations. Proposed U.S. Treasury Regulations were published in November of 2018 which provide a de minimis rule whereby if 90 percent or more of a taxpayer's adjusted asset basis is allocable to regulated utility activities, then all of the business interest expense of that taxpayer is deemed to be excepted business interest of the regulated utility activity and is thereby not limited under the TCJA. As a result of the de minimis rule, NW Holdings and NW Natural anticipate that business interest expense will not be limited under the TCJA.

The TCJA generally provides for immediate full expensing for qualified property both acquired and placed in service after September 27, 2017 and before January 1, 2023. This would generally provide for accelerated cost recovery for capital investments. However, the definition of qualified property excludes property used in the trade or business of a regulated utility. Proposed U.S. Treasury Regulations were published in August of 2018 which indicated that bonus tax depreciation would not be available for regulated utility activity assets acquired and placed in service by NW Holdings or NW Natural on or after January 1, 2018, but bonus tax depreciation would be available for regulated utility activity assets acquired and placed in service by NW Holdings or NW Natural before January 1, 2018.

The SEC staff previously issued Staff Accounting Bulletin 118, which provided guidance on accounting for the tax effects of the TCJA. SAB 118 provided a measurement period that should not extend beyond one year from the TCJA enactment date for companies to complete the accounting for the TCJA under ASC 740. To the extent that a company's accounting for certain income tax effects of the TCJA was incomplete but a reasonable estimate could be made, a company would record a provisional estimate in the

financial statements. NW Natural previously disclosed that due to uncertainties with respect to the availability of bonus tax depreciation for regulated utility activity assets under the TCJA that the effects of bonus tax depreciation for assets placed in service after September 27, 2017 but before January 1, 2018 had not been recorded. The determination to exclude all assets placed in service after September 27, 2017 but before January 1, 2018 from bonus tax depreciation was provisional as provided for under SAB 118.

As a result of the Proposed Regulations on bonus tax depreciation published in August of 2018, NW Natural revised the provisional estimate of deferred taxes and

income taxes payable to reflect the effects of bonus tax depreciation for assets placed in service after September 27, 2017 but before January 1, 2018. In the third quarter, NW Natural recognized increases to prepaid income tax of \$7.4 million, deferred income tax liability of \$4.1 million, and regulatory liability of \$3.3 million. In the fourth quarter, NW Natural recognized additional increases to prepaid income tax of \$0.5 million, deferred income tax liability of \$0.3 million, and regulatory liability of \$0.2 million. The accounting for income tax effects of the TCJA is now complete.

11. PROPERTY, PLANT, AND EQUIPMENT

The following table sets forth the major classifications of property, plant, and equipment and accumulated depreciation at December 31:

<i>In thousands</i>	2018	2017
NW Natural:		
NGD plant in service	\$3,134,122	\$2,975,217
NGD work in progress	204,978	159,924
Less: Accumulated depreciation	974,252	942,879
NGD plant, net	<u>2,364,848</u>	<u>2,192,262</u>
Other plant in service	66,009	64,997
Other construction work in progress	5,330	4,122
Less: Accumulated depreciation	18,603	17,406
Other plant, net ⁽¹⁾	<u>52,736</u>	<u>51,713</u>
Total property, plant, and equipment	<u>\$2,417,584</u>	<u>\$2,243,975</u>
Other (NW Holdings):		
Other plant in service	\$ 4,051	\$ 375
Less: Accumulated depreciation	263	192
Other plant, net ⁽¹⁾	<u>3,788</u>	<u>183</u>
NW Holdings:		
Total property, plant, and equipment	<u>\$2,421,372</u>	<u>\$2,244,158</u>
NW Natural and NW Holdings:		
Capital expenditures in accrued liabilities	\$ 23,676	\$ 34,761

⁽¹⁾ NW Natural's previously reported other balances were restated due to certain assets and liabilities now being classified as discontinued operations assets and liabilities in its balance sheets. See Note 18 for further discussion.

Accumulated depreciation does not include the accumulated provision for asset removal costs of \$380.5 million and \$360.9 million at December 31, 2018 and 2017, respectively. These accrued asset removal costs are reflected on the balance sheet as regulatory liabilities. See Note 2. During 2018 and 2017, no equipment was acquired under capital leases.

NW Holdings

Other plant balances include long-lived assets associated with water operations and non-regulated activities not held by NW Natural or its subsidiaries.

NW Natural

Other plant balances include long-lived assets not related to NGD.

The weighted average depreciation rate for NGD assets was 2.8% during 2018, 2017, and 2016. The weighted average depreciation rate for assets not related to NGD was 2.2% in 2018, 1.9% in 2017, and 2.0% in 2016.

12. GAS RESERVES

NW Natural has invested \$188 million through the gas reserves program in the Jonah Field located in Wyoming as of December 31, 2018. Gas reserves are stated at cost, net of regulatory amortization, with the associated deferred tax benefits recorded as liabilities in the consolidated balance sheets. The investment in gas reserves provides long-term price protection for NGD customers through the original agreement with Encana Oil & Gas (USA) Inc. under which NW Natural invested \$178 million and the amended agreement with Jonah Energy LLC under which an additional \$10 million was invested.

NW Natural entered into the original agreements with Encana in 2011 under which NW Natural holds working interests in certain sections of the Jonah Field. Gas produced in these sections is sold at prevailing market prices, and revenues from such sales, net of associated operating and production costs and amortization, are credited to the NGD cost of gas. The cost of gas, including a carrying cost for the rate base investment, is included in the annual Oregon PGA filing, which allows NW Natural to recover these costs through customer rates. The investment under the original agreement, less accumulated amortization and deferred taxes, earns a rate of return.

In March 2014, NW Natural amended the original gas reserves agreement in order to facilitate Encana's proposed sale of its interest in the Jonah field to Jonah Energy. Under the amendment, NW Natural ended the drilling program with Encana, but increased its working interests in its assigned sections of the Jonah field. NW Natural also retained the right to invest in new wells with Jonah Energy. Under the amended agreement there is still the option to invest in additional wells on a well-by-well basis with drilling costs and resulting gas volumes shared at NW Natural's amended proportionate working interest for each well in

which it invests. NW Natural elected to participate in some of the additional wells drilled in 2014, but did not participate in additional wells since 2014. However, there may be the opportunity to participate in more wells in the future.

Gas produced from the additional wells is included in the Oregon PGA at a fixed rate of \$0.4725 per therm, which approximates the 10-year hedge rate plus financing costs at the inception of the investment.

Gas reserves acted to hedge the cost of gas for approximately 6%, 6% and 8% of NGD gas supplies for the years ended December 31, 2018, 2017, and 2016 respectively.

The following table outlines NW Natural's net gas reserves investment at December 31:

<i>In thousands</i>	2018	2017
Gas reserves, current	\$ 16,647	\$ 15,704
Gas reserves, non-current	170,660	171,832
Less: Accumulated amortization	104,463	87,779
Total gas reserves ⁽¹⁾	82,844	99,757
Less: Deferred taxes on gas reserves	20,071	22,712
Net investment in gas reserves	<u>\$ 62,773</u>	<u>\$ 77,045</u>

⁽¹⁾ The net investment in additional wells included in total gas reserves was \$4.8 million and \$5.8 million at December 31, 2018 and 2017, respectively.

NW Natural's investment is included in NW Holdings' and NW Natural's consolidated balance sheets under gas reserves with the maximum loss exposure limited to the investment balance.

13. INVESTMENTS

Investments include financial investments in life insurance policies, and equity method investments in certain partnerships and limited liability companies. The following table summarizes other investments at December 31:

<i>In thousands</i>	NW Holdings		NW Natural	
	2018	2017	2018	2017
Investments in life insurance policies	\$ 49,922	\$ 50,792	\$ 49,922	\$ 50,792
Investments in gas pipeline	13,571	13,669	—	—
Other	65	1,902	—	1,862
Total other investments	<u>\$ 63,558</u>	<u>\$ 66,363</u>	<u>\$ 49,922</u>	<u>\$ 52,654</u>

Investment in Life Insurance Policies

NW Natural has invested in key person life insurance contracts to provide an indirect funding vehicle for certain long-term employee and director benefit plan liabilities. The amount in the above table is reported at cash surrender value, net of policy loans.

Investments in Gas Pipeline

TWP, a wholly-owned subsidiary of TWH, is pursuing the development of a new gas transmission pipeline that would provide an interconnection with NW Natural's NGD system. NWN Energy, a wholly-owned subsidiary of NW Holdings, owns 50% of TWH, and 50% is owned by TransCanada American Investments Ltd., an indirect wholly-owned subsidiary of TransCanada Corporation.

Variable Interest Entity (VIE) Analysis

TWH is a VIE, with NW Holdings' investment in TWP reported under equity method accounting. It has been determined that NW Holdings is not the primary beneficiary of TWH's activities as it only has a 50% share of the entity, and there are no stipulations that allow NW Holdings a disproportionate influence over it. Investments in TWH and TWP are included in other investments on NW Holdings' balance sheet. If this investment is not developed, then the maximum loss exposure related to TWH is limited to NW Holdings' equity investment balance, less its share of any cash or other assets available to NW Holdings as a 50% owner. The investment balance in TWH was \$13.4 million at December 31, 2018 and 2017.

Impairment Analysis

Investments in nonconsolidated entities accounted for under the equity method are reviewed for impairment at each reporting period and following updates to our corporate planning assumptions. If it is determined a loss in value is other than temporary, a charge is recognized for the difference between the investment's carrying value and its estimated fair value. Fair value is based on quoted market prices when available or on the present value of expected future cash flows. Differing assumptions could affect the timing and amount of a charge recorded in any period.

In 2011, TWP withdrew its original application with the FERC for a proposed natural gas pipeline in Oregon and informed FERC that it intended to re-file an application to reflect changes in the project scope aligning the project with the region's current and future gas infrastructure needs. TWP continues working with customers in the Pacific

Northwest to further understand their gas transportation needs and determine the commercial support for a revised pipeline proposal. A new FERC certificate application is expected to be filed to reflect a revised scope based on these regional needs.

NW Holdings' equity investment was not impaired at December 31, 2018 as the fair value of expected cash flows from planned development exceeded NW Holdings' remaining equity investment of \$13.4 million at December 31, 2018. However, if NW Holdings learns that the project is not viable or will not go forward, it could be required to recognize a maximum charge of up to approximately \$13.4 million based on the current amount of the equity investment, net of cash and working capital at TWP. NW Holdings will continue to monitor and update the impairment analysis as required.

14. BUSINESS COMBINATIONS

Falls Water

On September 13, 2018, NWN Water, then a wholly-owned subsidiary of NW Natural and now a wholly-owned subsidiary of NW Holdings, completed the acquisition of Falls Water Co., Inc. (Falls Water), a privately-owned water utility in the Pacific Northwest for preliminary non-cash consideration of \$8.5 million, subject to closing adjustments, in the form of 125,000 shares of NW Natural common stock. Falls Water became a wholly-owned subsidiary of NWN Water and marked its first acquisition in the water services sector. This acquisition aligns with NW Holdings' water sector strategy as the acquisition provides NWN Water entry into Idaho, expands service area, and opens further opportunity for growth. Falls Water is based in Idaho Falls, Idaho and serves approximately 5,300 connections.

Through the purchase of all of the outstanding shares of Falls Water, NWN Water acquired the net assets and 100% control of Falls Water. We determined that the Falls Water acquisition met the criteria of a business combination, and as such performed a preliminary allocation of the consideration to the acquired assets and assumed liabilities based on their fair value as of the acquisition date, the majority of which was allocated to goodwill. The allocation is considered preliminary as of December 31, 2018, and is primarily associated with certain tax positions and goodwill. Subsequent adjustments are not expected to be significant,

and any such adjustments are expected to be completed within a one-year measurement period. The acquisition costs were insignificant and were expensed as incurred. The results of Falls Water are not material to the consolidated financial results of NW Holdings.

Preliminary goodwill of \$6.4 million was recognized from this acquisition and is attributable to Falls Water's regulated service territory and experienced workforce as well as the strategic benefits expected from this high-growth service territory. NW Holdings has included this goodwill in other for segment reporting purposes, and it is not deductible for income tax purposes. No intangible assets aside from goodwill were acquired. See Note 2 for goodwill impairment information.

Other Acquisitions

During 2018, in addition to the Falls Water acquisition, NWN Water completed three acquisitions qualifying as business combinations. The aggregate fair value of the preliminary consideration transferred for these acquisitions was approximately \$2.8 million. These business combinations, both individually and in aggregate, were not significant to NW Holdings' results of operations.

As a result of all acquisitions completed, total goodwill was \$9.0 million as of December 31, 2018.

15. DERIVATIVE INSTRUMENTS

NW Natural enters into financial derivative contracts to hedge a portion of the NGD segment's natural gas sales requirements. These contracts include swaps, options, and combinations of option contracts. These derivative financial instruments are primarily used to manage commodity price variability. A small portion of NW Natural's derivative hedging strategy involves foreign currency exchange contracts.

NW Natural enters into these financial derivatives, up to prescribed limits, primarily to hedge price variability related to physical gas supply contracts as well as to hedge spot purchases of natural gas. The foreign currency forward

contracts are used to hedge the fluctuation in foreign currency exchange rates for pipeline demand charges paid in Canadian dollars.

In the normal course of business, NW Natural also enters into indexed-price physical forward natural gas commodity purchase contracts and options to meet the requirements of NGD customers. These contracts qualify for regulatory deferral accounting treatment.

NW Natural also enters into exchange contracts related to the third-party asset management of its gas portfolio, some of which are derivatives that do not qualify for hedge

accounting or regulatory deferral, but are subject to NW Natural's regulatory sharing agreement. These derivatives are recognized in operating revenues, net of amounts shared with NGD customers.

Notional Amounts

The following table presents the absolute notional amounts related to open positions on NW Natural derivative instruments:

<i>In thousands</i>	At December 31,	
	2018	2017
Natural gas (in therms):		
Financial	408,850	429,100
Physical	472,275	520,268
Foreign exchange	\$ 6,936	\$ 7,669

Unrealized and Realized Gain/Loss

The following table reflects the income statement presentation for the unrealized gains and losses from NW Natural's derivative instruments, which also represents all derivative instruments at NW Holdings:

<i>In thousands</i>	December 31, 2018		December 31, 2017	
	Natural gas commodity	Foreign exchange	Natural gas commodity	Foreign exchange
Benefit (expense) to cost of gas	\$ (1,239)	\$ (284)	\$ (26,000)	\$ 107
Operating revenues	1,660	—	(1,021)	—
Amounts deferred to regulatory accounts on balance sheet	(211)	284	26,665	(107)
Total gain (loss) in pre-tax earnings	\$ 210	\$ —	\$ (356)	\$ —

UNREALIZED GAIN/LOSS. Outstanding derivative instruments related to regulated NGD operations are deferred in accordance with regulatory accounting standards. The cost of foreign currency forward and natural gas derivative contracts are recognized immediately in the cost of gas; however, costs above or below the amount embedded in the current year PGA are subject to a regulatory deferral tariff and therefore, are recorded as a regulatory asset or liability.

REALIZED GAIN/LOSS. Net gains of \$7.4 million and net losses of \$7.8 million were realized for the years ended December 31, 2018 and 2017, respectively, from the settlement of natural gas financial derivative contracts. Realized gains and losses are recorded in cost of gas, deferred through regulatory accounts, and amortized through customer rates in the following year.

Credit Risk Management of Financial Derivatives Instruments

No collateral was posted with or by NW Natural counterparties as of December 31, 2018 or 2017. NW Natural attempts to minimize the potential exposure to collateral calls by counterparties to manage liquidity risk. Counterparties generally allow a certain credit limit threshold before requiring NW Natural to post collateral against loss positions. Given NW Natural's counterparty credit limits and portfolio diversification, it was not subject to collateral calls in 2018 or 2017. The collateral call exposure is set forth

Purchased Gas Adjustment (PGA)

Derivatives entered into by NW Natural for the procurement or hedging of natural gas for future gas years generally receive regulatory deferral accounting treatment. In general, commodity hedging for the current gas year is completed prior to the start of the gas year, and hedge prices are reflected in the weighted-average cost of gas in the PGA filing. Hedge contracts entered into after the start of the PGA period are subject to the PGA incentive sharing mechanism in Oregon. NW Natural entered the 2018-19 and 2017-18 gas year with forecasted sales volumes hedged at 48% and 49% in financial swap and option contracts, and 24% and 26% in physical gas supplies, respectively. Hedge contracts entered into prior to the PGA filing, in September 2018, were included in the PGA for the 2018-19 gas year. Hedge contracts entered into after the PGA filing, and related to subsequent gas years, may be included in future PGA filings and qualify for regulatory deferral.

under credit support agreements, which generally contain credit limits. NW Natural could also be subject to collateral call exposure where it has agreed to provide adequate assurance, which is not specific as to the amount of credit limit allowed, but could potentially require additional collateral in the event of a material adverse change.

Based on current commodity financial swap and option contracts outstanding, which reflect unrealized losses of \$7.8 million at December 31, 2018, we have estimated the level of collateral demands, with and without potential adequate assurance calls, using current gas prices and various credit downgrade rating scenarios for NW Natural as follows:

<i>In thousands</i>	(Current Ratings) A+/A3	Credit Rating Downgrade Scenarios			
		BBB+/Baa1	BBB/Baa2	BBB-/Baa3	Speculative
With Adequate Assurance Calls	\$ —	\$ —	\$ —	\$(3,940)	\$(6,059)
Without Adequate Assurance Calls	—	—	—	(3,940)	(4,452)

NW Natural's financial derivative instruments are subject to master netting arrangements; however, they are presented on a gross basis in NW Natural's consolidated balance sheets. NW Natural and its counterparties have the ability to set-off obligations to each other under specified circumstances. Such circumstances may include a defaulting party, a credit change due to a merger affecting either party, or any other termination event.

If netted by counterparty, NW Natural's derivative position would result in an asset of \$3.6 million and a liability of \$9.3 million as of December 31, 2018, and an asset of \$2.9 million and a liability of \$23.3 million as of December 31, 2017.

NW Natural is exposed to derivative credit and liquidity risk primarily through securing fixed price natural gas commodity swaps to hedge the risk of price increases for natural gas purchases made on behalf of customers. NW Natural utilizes master netting arrangements through International Swaps and Derivatives Association contracts to minimize this risk along with collateral support agreements with counterparties based on their credit ratings. In certain cases, NW Natural requires guarantees or letters of credit from counterparties to meet its minimum credit requirement standards.

NW Natural's financial derivatives policy requires counterparties to have a certain investment-grade credit rating at the time the derivative instrument is entered into, and the policy specifies limits on the contract amount and duration based on each counterparty's credit rating. NW Natural does not speculate with derivatives; instead, derivatives are used to hedge exposure above risk tolerance limits. Any increase in market risk created by the use of derivatives should be offset by the exposures they modify. We actively monitor NW Natural's derivative credit exposure and place counterparties on hold for trading purposes or require other forms of credit assurance, such as letters of credit, cash collateral, or guarantees as circumstances warrant. The ongoing assessment of counterparty credit risk includes consideration of credit ratings, credit default swap

spreads, bond market credit spreads, financial condition, government actions, and market news. A Monte-Carlo simulation model is used to estimate the change in credit and liquidity risk from the volatility of natural gas prices. The results of the model are used to establish earnings-at-risk trading limits. NW Natural's credit risk for all outstanding financial derivatives at December 31, 2018 extends to October 31, 2021.

We could become materially exposed to credit risk with one or more of our counterparties if natural gas prices experience a significant increase. If a counterparty were to become insolvent or fail to perform on its obligations, we could suffer a material loss; however, we would expect such a loss to be eligible for regulatory deferral and rate recovery, subject to a prudence review. All of our existing counterparties currently have investment-grade credit ratings.

Fair Value

In accordance with fair value accounting, non-performance risk is included in calculating fair value adjustments. This includes a credit risk adjustment based on the credit spreads of NW Natural's counterparties when it is in an unrealized gain position, or on NW Natural's own credit spread when it is in an unrealized loss position. The inputs in the valuation models include natural gas futures, volatility, credit default swap spreads, and interest rates. Additionally, the assessment of non-performance risk is generally derived from the credit default swap market and from bond market credit spreads. The impact of the credit risk adjustments for all outstanding derivatives was immaterial to the fair value calculation at December 31, 2018. As of December 31, 2018 and 2017, the net fair value was a liability of \$5.7 million and a liability of \$20.3 million, respectively, using significant other observable, or Level 2, inputs. No Level 3 inputs were used in the derivative valuations, and there were no transfers between Level 1 or Level 2 during the years ended December 31, 2018 and 2017.

16. COMMITMENTS AND CONTINGENCIES

Leases

Land, buildings, and equipment are leased under agreements that expire in various years, including a 99-year land lease that extends through 2108. Rental costs for continuing operations were \$5.9 million, \$7.3 million, and \$5.9 million for the years ended December 31, 2018, 2017, and 2016, respectively, a portion of which was capitalized.

The following table reflects NW Natural's future minimum lease payments due under non-cancelable operating leases for continuing operations at December 31, 2018. These commitments relate principally to the lease of the office headquarters and underground gas storage facilities.

<i>In thousands</i>	Minimum lease payments
2019	\$ 5,368
2020	4,812
2021	7,077
2022	7,223
2023	7,304
Thereafter	149,881
Total	<u>\$ 181,665</u>

In October 2017, NW Natural entered into a 20-year operating lease agreement for a new headquarters in Portland, Oregon in anticipation of the expiration of the current lease in 2020.

Payments under the new lease are expected to commence in 2020. Total estimated base rent payments over the life of the lease are approximately \$160 million and have been included in the table above. There is an option to extend the term of the lease for two additional seven-year periods.

Additionally, the lease was analyzed under the lease standard in effect at the time of signing in consideration of build-to-suit lease accounting implications, and NW Natural concluded that it was the accounting owner of the asset during construction. As a result, NW Natural recognized \$26.0 million and \$0.5 million in property, plant and equipment and an obligation in other non-current liabilities for the same amount in its consolidated balance sheet at December 31, 2018 and 2017, respectively.

17. ENVIRONMENTAL MATTERS

NW Natural owns, or previously owned, properties that may require environmental remediation or action. The range of loss for environmental liabilities is estimated based on current remediation technology, enacted laws and regulations, industry experience gained at similar sites, and an assessment of the probable level of involvement and financial condition of other potentially responsible parties (PRPs). When amounts are prudently expended related to site remediation of those sites described herein, NW Natural has a recovery mechanism in place to collect 96.68% of remediation costs from Oregon customers, and NW Natural

Gas Purchase and Pipeline Capacity Purchase and Release Commitments

NW Natural has signed agreements providing for the reservation of firm pipeline capacity under which it is required to make fixed monthly payments for contracted capacity. The pricing component of the monthly payment is established, subject to change, by U.S. or Canadian regulatory bodies. In addition, NW Natural has entered into long-term sale agreements to release firm pipeline capacity. NW Natural also enters into short-term and long-term gas purchase agreements.

The aggregate amounts of these agreements were as follows at December 31, 2018:

<i>In thousands</i>	Gas Purchase Agreements	Pipeline Capacity Purchase Agreements	Pipeline Capacity Release Agreements
2019	\$ 144,500	\$ 78,449	\$ 4,272
2020	2,776	76,613	3,560
2021	2,313	66,656	—
2022	—	61,075	—
2023	—	60,619	—
Thereafter	—	580,022	—
Total	<u>149,589</u>	<u>923,434</u>	<u>7,832</u>
Less: Amount representing interest	<u>1,314</u>	<u>201,224</u>	<u>183</u>
Total at present value	<u>\$ 148,275</u>	<u>\$ 722,210</u>	<u>\$ 7,649</u>

Total payments for fixed charges under capacity purchase agreements were \$82.6 million for 2018, \$85.3 million for 2017, and \$85.0 million for 2016. Included in the amounts were reductions for capacity release sales of \$4.3 million for 2018, \$4.5 million for 2017, and \$4.5 million for 2016. In addition, per-unit charges are required to be paid based on the actual quantities shipped under the agreements. In certain take-or-pay purchase commitments, annual deficiencies may be offset by prepayments subject to recovery over a longer term if future purchases exceed the minimum annual requirements.

Environmental Matters

Refer to Note 17 for a discussion of environmental commitments and contingencies.

is allowed to defer environmental remediation costs allocated to customers in Washington annually until they are reviewed for prudence at a subsequent proceeding.

These sites are subject to the remediation process prescribed by the Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (ODEQ). The process begins with a remedial investigation (RI) to determine the nature and extent of contamination and then a risk assessment (RA) to establish whether the contamination at the site poses unacceptable risks to

humans and the environment. Next, a feasibility study (FS) or an engineering evaluation/cost analysis (EE/CA) evaluates various remedial alternatives. It is at this point in the process when NW Natural is able to estimate a range of remediation costs and record a reasonable potential remediation liability, or make an adjustment to the existing liability. From this study, the regulatory agency selects a remedy and issues a Record of Decision (ROD).

After a ROD is issued, NW Natural would seek to negotiate a consent decree or consent judgment for designing and implementing the remedy. NW Natural would have the ability to further refine estimates of remediation liabilities at that time.

Remediation may include treatment of contaminated media such as sediment, soil and groundwater, removal and disposal of media, institutional controls such as legal restrictions on future property use, or natural recovery. Following construction of the remedy, the EPA and ODEQ also have requirements for ongoing maintenance, monitoring, and other post-remediation care that may continue for many years.

Environmental Sites

The following table summarizes information regarding liabilities related to environmental sites, which are recorded in other current liabilities and other noncurrent liabilities in NW Natural's balance sheet at December 31:

<i>In thousands</i>	Current Liabilities		Non-Current Liabilities	
	2018	2017	2018	2017
Portland Harbor site:				
Gasco/Siltronic Sediments	\$ 5,117	\$ 2,683	\$ 44,351	\$ 45,346
Other Portland Harbor	2,600	1,949	6,273	4,163
Gasco/Siltronic Upland site	13,983	13,422	44,830	47,835
Central Service Center site	10	25	—	—
Front Street site	11,402	1,009	3	10,757
Oregon Steel Mills	—	—	179	179
Total	<u>\$ 33,112</u>	<u>\$ 19,088</u>	<u>\$ 95,636</u>	<u>\$ 108,280</u>

PORTLAND HARBOR SITE. The Portland Harbor is an EPA listed Superfund site that is approximately 10 miles long on the Willamette River and is adjacent to NW Natural's Gasco uplands sites. NW Natural is one of over one hundred PRPs to the Superfund site. In January 2017, the EPA issued its Record of Decision, which selects the remedy for the clean-up of the Portland Harbor site (Portland Harbor ROD). The Portland Harbor ROD estimates the present value total cost at approximately \$1.05 billion with an accuracy between -30% and +50% of actual costs.

NW Natural's potential liability is a portion of the costs of the remedy for the entire Portland Harbor Superfund site. The cost of that remedy is expected to be allocated among more than 100 PRPs. In addition, NW Natural is actively pursuing clarification and flexibility under the ROD in order to better understand its obligation under the clean-up. NW Natural is

Where appropriate and reasonably known, NW Natural will provide for these costs in the remediation liabilities described below.

Due to the numerous uncertainties surrounding the course of environmental remediation and the preliminary nature of several site investigations, in some cases, NW Natural may not be able to reasonably estimate the high end of the range of possible loss. In those cases, the nature of the possible loss has been disclosed, as has the fact that the high end of the range cannot be reasonably estimated where a range of potential loss is available. Unless there is an estimate within the range of possible losses that is more likely than other cost estimates within that range, NW Natural records the liability at the low end of this range. It is likely changes in these estimates and ranges will occur throughout the remediation process for each of these sites due to the continued evaluation and clarification concerning responsibility, the complexity of environmental laws and regulations, and the determination by regulators of remediation alternatives. In addition to remediation costs, NW Natural could also be subject to Natural Resource Damages (NRD) claims. NW Natural will assess the likelihood and probability of each claim and recognize a liability if deemed appropriate. Refer to "Other Portland Harbor" below.

also participating in a non-binding allocation process with the other PRPs in an effort to resolve its potential liability. The Portland Harbor ROD does not provide any additional clarification around allocation of costs among PRPs and, as a result of the issuance of the Portland Harbor ROD, NW Natural has not modified any of the recorded liabilities at this time.

NW Natural manages its liability related to the Superfund site as two distinct remediation projects, the Gasco/Siltronic Sediments and Other Portland Harbor projects.

Gasco/Siltronic Sediments. In 2009, NW Natural and Siltronic Corporation entered into a separate Administrative Order on Consent with the EPA to evaluate and design specific remedies for sediments adjacent to the Gasco uplands and Siltronic uplands sites. NW Natural submitted a draft EE/CA to the EPA in May 2012 to provide the estimated cost of

potential remedial alternatives for this site. At this time, the estimated costs for the various sediment remedy alternatives in the draft EE/CA, for the additional studies and design work needed before the cleanup can occur, and for regulatory oversight throughout the clean-up range from \$49.5 million to \$350 million. NW Natural has recorded a liability of \$49.5 million for the sediment clean-up, which reflects the low end of the range. At this time, we believe sediments at this site represent the largest portion of NW Natural's liability related to the Portland Harbor site discussed above.

Other Portland Harbor. While we believe liabilities associated with the Gasco/Siltronic sediments site represent NW Natural's largest exposure, there are other potential exposures associated with the Portland Harbor ROD, including NRD costs and harborwide clean-up costs (including downstream petroleum contamination), for which allocations among the PRPs have not yet been determined.

NW Natural and other parties have signed a cooperative agreement with the Portland Harbor Natural Resource Trustee council to participate in a phased NRD assessment to estimate liabilities to support an early restoration-based settlement of NRD claims. One member of this Trustee council, the Yakama Nation, withdrew from the council in 2009, and in 2017, filed suit against NW Natural and 29 other parties seeking remedial costs and NRD assessment costs associated with the Portland Harbor, set forth in the complaint. The complaint seeks recovery of alleged costs totaling \$0.3 million in connection with the selection of a remedial action for the Portland Harbor as well as declaratory judgment for unspecified future remedial action costs and for costs to assess the injury, loss, or destruction of natural resources resulting from the release of hazardous substances at and from the Portland Harbor site. The Magistrate Judge has recommended granting NW Natural and certain other defendants' motion to stay the case. NW Natural has recorded a liability for NRD claims which is at the low end of the range of the potential liability; the high end of the range cannot be reasonably estimated at this time. The NRD liability is not included in the aforementioned range of costs provided in the Portland Harbor ROD.

GASCO UPLANDS SITE. A predecessor of NW Natural, Portland Gas and Coke Company, owned a former gas manufacturing plant that was closed in 1958 (Gasco site) and is adjacent to the Portland Harbor site described above. The Gasco site has been under investigation by NW Natural for environmental contamination under the ODEQ Voluntary Clean-Up Program (VCP). It is not included in the range of remedial costs for the Portland Harbor site noted above. The Gasco site is managed in two parts, the uplands portion and the groundwater source control action.

NW Natural submitted a revised Remedial Investigation Report for the uplands to ODEQ in May 2007. In March 2015, ODEQ approved the RA, enabling commencement of work on the FS in 2016. NW Natural has recognized a liability for the remediation of the uplands portion of the site which is at the low end of the range of potential liability; the high end of the range cannot be reasonably estimated at this time.

In October 2016, ODEQ and NW Natural agreed to amend their VCP agreement to incorporate a portion of the Siltronic property adjacent to the Gasco site formerly owned by Portland Gas & Coke between 1939 and 1960 into the Gasco RA and FS, excluding the uplands for Siltronic. Previously, NW Natural was conducting an investigation of manufactured gas plant constituents on the entire Siltronic uplands for ODEQ. Siltronic will be working with ODEQ directly on environmental impacts to the remainder of its property.

In September 2013, NW Natural completed construction of a groundwater source control system, including a water treatment station, at the Gasco site. NW Natural has estimated the cost associated with the ongoing operation of the system and has recognized a liability which is at the low end of the range of potential costs. NW Natural cannot estimate the high end of the range at this time due to the uncertainty associated with the duration of the operation of the water treatment station, which is highly dependent on the remedy determined for both the upland portion as well as the final remedy for Gasco sediment exposure.

OTHER SITES. In addition to those sites above, NW Natural has environmental exposures at three other sites: Central Service Center, Front Street, and Oregon Steel Mills. NW Natural may have exposure at other sites that have not been identified at this time. Due to the uncertainty of the design of remediation, regulation, timing of the remediation, and in the case of the Oregon Steel Mills site, pending litigation, liabilities for each of these sites have been recognized at their respective low end of the range of potential liability; the high end of the range cannot be reasonably estimated at this time.

Central Service Center site. NW Natural is currently performing an environmental investigation of the property under ODEQ's Independent Cleanup Pathway. This site is on ODEQ's list of sites with confirmed releases of hazardous substances, and cleanup is necessary.

Front Street site. The Front Street site was the former location of a gas manufacturing plant NW Natural operated (the former Portland Gas Manufacturing site, or PGM). At ODEQ's request, NW Natural conducted a sediment and source control investigation and provided findings to ODEQ. In December 2015, a FS on the former Portland Gas Manufacturing site was completed.

In July 2017, ODEQ issued the PGM ROD. The ROD specifies the selected remedy, which requires a combination of dredging, capping, treatment, and natural recovery. In addition, the selected remedy also requires institutional controls and long-term inspection and maintenance. NW Natural revised the liability in the second quarter of 2017 to incorporate the estimated undiscounted cost of approximately \$10.5 million for the selected remedy. Further, NW Natural has recognized an additional liability of \$0.9 million for additional studies and design costs as well as regulatory oversight throughout the clean-up. NW Natural plans to complete the remedial design in early 2019 and expects to construct the remedy during 2019.

Oregon Steel Mills site. Refer to the “Legal Proceedings,” below.

Site Remediation and Recovery Mechanism (SRRM)

NW Natural has an SRRM through which it tracks and has the ability to recover past deferred and future prudently incurred environmental remediation costs allocable to Oregon, subject to an earnings test, for those sites identified therein. In the February 2015 Order establishing the SRRM (2015 Order), the OPUC addressed outstanding issues related to the SRRM, which required NW Natural to forego the collection of \$15 million out of approximately \$95 million in total environmental remediation expenses and associated carrying costs.

As a follow-up to the 2015 Order, the OPUC issued an additional Order in January 2016 (2016 Order) regarding the SRRM implementation in which the OPUC: (1) disallowed the recovery of \$2.8 million of interest earned on the previously disallowed environmental expenditure amounts; (2) clarified the state allocation of 96.68% of environmental remediation costs for all environmental sites allocable to Oregon; and (3) confirmed NW Natural's treatment of \$13.8 million of expenses put into the SRRM amortization account was correct and in compliance with prior OPUC orders. As a result of the 2016 Order, NW Natural recognized a \$3.3 million non-cash charge in the first quarter, of which \$2.8 million is reflected in other income and expense, net and \$0.5 million is included in operations and maintenance expense.

COLLECTIONS FROM OREGON CUSTOMERS. Under the SRRM collection process there are three types of deferred environmental remediation expense:

- Pre-review - This class of costs represents remediation spend that has not yet been deemed prudent by the OPUC. Carrying costs on these remediation expenses are recorded at NW Natural's authorized cost of capital. NW Natural anticipates the prudence review for annual costs and approval of the earnings test prescribed by the OPUC to occur by the third quarter of the following year.
- Post-review - This class of costs represents remediation spend that has been deemed prudent and allowed after applying the earnings test, but is not yet included in amortization. NW Natural earns a carrying cost on these amounts at a rate equal to the five-year treasury rate plus 100 basis points.
- Amortization - This class of costs represents amounts included in current customer rates for collection and is generally calculated as one-fifth of the post-review deferred balance. NW Natural earns a carrying cost equal to the amortization rate determined annually by the OPUC, which approximates a short-term borrowing rate. In addition to the collection amount noted above, the Order also provides for the annual collection of \$5.0 million from Oregon customers through a tariff rider. As NW Natural collects amounts from customers, it recognizes these collections as revenue and separately amortizes an equal and offsetting amount of its deferred regulatory asset balance through the environmental remediation operating expense line shown separately in the operating expense section of the income statement.

NW Natural received total environmental insurance proceeds of approximately \$150.0 million as a result of settlements from litigation that was dismissed in July 2014. Under the 2015 OPUC Order, one-third of the Oregon allocated proceeds were applied to costs deferred through 2012 with the remaining two-thirds applied to costs at a rate of \$5.0 million per year plus interest over the following 20 years. NW Natural accrues interest on the insurance proceeds in the customer's favor at a rate equal to the five-year treasury rate plus 100 basis points. As of December 31, 2018, NW Natural has applied \$73.2 million of insurance proceeds to prudently incurred remediation costs allocated to Oregon.

The following table presents information regarding the total regulatory asset deferred as of December 31:

<i>In thousands</i>	2018	2017
Deferred costs and interest ⁽¹⁾	\$ 41,883	\$ 45,546
Accrued site liabilities ⁽²⁾	128,369	126,950
Insurance proceeds and interest	(88,502)	(94,170)
Total regulatory asset deferral ⁽¹⁾	\$ 81,750	\$ 78,326
Current regulatory assets ⁽³⁾	5,601	6,198
Long-term regulatory assets ⁽³⁾	76,149	72,128

⁽¹⁾ Includes pre-review and post-review deferred costs, amounts currently in amortization, and interest, net of amounts collected from customers.

⁽²⁾ Excludes 3.32% of the Front Street site liability, or \$0.4 million in 2018 and \$0.4 million in 2017, as the OPUC only allows recovery of 96.68% of costs for those sites allocable to Oregon, including those that historically served only Oregon customers.

⁽³⁾ Environmental costs relate to specific sites approved for regulatory deferral by the OPUC and WUTC. In Oregon, NW Natural earns a carrying charge on cash amounts paid, whereas amounts accrued but not yet paid do not earn a carrying charge until expended. NW Natural also accrues a carrying charge on insurance proceeds for amounts owed to customers. In Washington, a carrying charge related to deferred amounts will be determined in a future proceeding. Current environmental costs represent remediation costs management expects to collect from customers in the next 12 months. Amounts included in this estimate are still subject to a prudence and earnings test review by the OPUC and do not include the \$5.0 million tariff rider. The amounts allocable to Oregon are recoverable through NGD rates, subject to an earnings test.

ENVIRONMENTAL EARNINGS TEST. To the extent NW Natural earns at or below its authorized Return on Equity (ROE), remediation expenses and interest in excess of the \$5.0 million tariff rider and \$5.0 million insurance proceeds are recoverable through the SRRM. To the extent NW Natural earns more than its authorized ROE in a year, it is required to cover environmental expenses and interest on expenses greater than the \$10.0 million with those earnings that exceed its authorized ROE.

Under the 2015 Order, the OPUC stated they would revisit the deferral and amortization of future remediation expenses, as well as the treatment of remaining insurance proceeds three years from the original Order, or earlier if NW Natural gains greater certainty about its future remediation costs, to consider whether adjustments to the mechanism may be appropriate. NW Natural filed an update with the OPUC in March 2018 and recommended no changes.

WASHINGTON DEFERRAL. In Washington, cost recovery and carrying charges on amounts deferred for costs associated with services provided to Washington customers will be determined in a future proceeding.

Legal Proceedings

NW Holdings is not currently party to any direct claims or litigation, though in the future it may be subject to claims and litigation arising in the ordinary course of business.

NW Natural is subject to claims and litigation arising in the ordinary course of business. Although the final outcome of any of these legal proceedings cannot be predicted with certainty, including the matter described below, NW Natural and NW Holdings do not expect that the ultimate disposition of any of these matters will have a material effect on financial condition, results of operations, or cash flows.

18. DISCONTINUED OPERATIONS

NW Holdings

On June 20, 2018, NWN Gas Storage, then a wholly-owned subsidiary of NW Natural, entered into a Purchase and Sale Agreement (the Agreement) that provides for the sale by NWN Gas Storage of all of the membership interests in Gill Ranch. Gill Ranch owns a 75% interest in the natural gas storage facility located near Fresno, California known as the Gill Ranch Gas Storage Facility. PG&E owns the remaining 25% interest in the Gill Ranch Gas Storage Facility. The CPUC regulates Gill Ranch under a market-based rate model which allows for the price of storage services to be set by the marketplace. The CPUC also regulates the issuance of securities, system of accounts, and regulates intrastate storage services.

The Agreement provides for an initial cash purchase price of \$25.0 million (subject to a working capital adjustment), plus potential additional payments to NWN Gas Storage of up to \$26.5 million in the aggregate if Gill Ranch achieves certain economic performance levels for the first three full gas storage years (April 1 of one year through March 31 of the following year) occurring after the closing and the remaining portion of the gas storage year during which the closing occurs.

OREGON STEEL MILLS SITE. In 2004, NW Natural was served with a third-party complaint by the Port of Portland (the Port) in a Multnomah County Circuit Court case, Oregon Steel Mills, Inc. v. The Port of Portland. The Port alleges that in the 1940s and 1950s petroleum wastes generated by NW Natural's predecessor, Portland Gas & Coke Company, and 10 other third-party defendants, were disposed of in a waste oil disposal facility operated by the United States or Shaver Transportation Company on property then owned by the Port and now owned by Evraz Oregon Steel Mills. The complaint seeks contribution for unspecified past remedial action costs incurred by the Port regarding the former waste oil disposal facility as well as a declaratory judgment allocating liability for future remedial action costs. No date has been set for trial. In August 2017, the case was stayed pending outcome of the Portland Harbor allocation process or other mediation. Although the final outcome of this proceeding cannot be predicted with certainty, NW Natural and NW Holdings do not expect the ultimate disposition of this matter will have a material effect on NW Natural's or NW Holdings' financial condition, results of operations, or cash flows.

For additional information regarding other commitments and contingencies, see Note 16.

We expect the transaction to close in 2019. The closing of the transaction is subject to approval by the CPUC, satisfaction of representations, warranties and covenants of the Agreement, and other customary closing conditions. In July 2018, Gill Ranch filed an application with the CPUC for approval of this transaction. On February 14, 2019, the active parties to the CPUC proceeding filed a settlement agreement with the CPUC. The CPUC is expected to rule on the settlement agreement within 90 days of its filing, but may grant further time for public comment. We expect an order on this matter by the end of June.

As a result of the strategic shift away from the California gas storage market and the significance of Gill Ranch's financial results in 2017, we concluded that the pending sale of Gill Ranch qualified it as assets and liabilities held for sale and discontinued operations. As such, the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and discontinued operations liabilities, respectively, and, the results of Gill Ranch are presented, net of tax, as discontinued operations separate from the results of continuing operations for all periods presented. The expenses included in the results of discontinued operations are the direct operating expenses incurred by Gill Ranch that may be reasonably segregated from the costs of our continuing operations.

The following table presents the carrying amounts of the major components of Gill Ranch that are classified as discontinued operations assets and liabilities on NW Holdings' consolidated balance sheets:

<i>In thousands</i>	NW Holdings Discontinued Operations	
	2018	2017
Assets:		
Accounts receivable	\$ 390	\$ 2,126
Inventories	685	396
Other current assets	333	535
Property, plant, and equipment	11,621	10,816
Less: Accumulated depreciation	7	—
Other non-current assets	247	1
Discontinued operations - current assets	13,269	3,057
Discontinued operations - non-current assets	—	10,817
Total discontinued operations assets	<u>\$ 13,269</u>	<u>\$ 13,874</u>
Liabilities:		
Accounts payable	\$ 873	\$ 1,287
Other current liabilities	307	306
Other non-current liabilities	11,779	12,043
Discontinued operations - current liabilities	12,959	1,593
Discontinued operations - non-current liabilities	—	12,043
Total discontinued operations liabilities	<u>\$ 12,959</u>	<u>\$ 13,636</u>

(1) The total assets and liabilities of Gill Ranch are classified as current as of December 31, 2018 because it is probable that the sale will be completed within one year.

The following table presents the operating results of Gill Ranch, which was historically reported within the gas storage segment, and is presented net of tax on NW Holdings' consolidated statements of comprehensive income:

<i>In thousands, except per share data</i>	NW Holdings Discontinued Operations		
	2018	2017	2016
Revenues	\$ 3,579	\$ 7,135	\$ 7,794
Expenses			
Operations and maintenance	5,771	7,245	6,643
General taxes	479	1,373	1,295
Depreciation and amortization	430	4,525	4,685
Other expenses and interest	609	975	992
Impairment expense	—	192,478	—
Total expenses	<u>7,289</u>	<u>206,596</u>	<u>13,615</u>
Loss from discontinued operations before income tax	(3,710)	(199,461)	(5,821)
Income tax benefit ⁽¹⁾	(968)	(71,765)	(2,297)
Loss from discontinued operations, net of tax	<u>\$ (2,742)</u>	<u>\$ (127,696)</u>	<u>\$ (3,524)</u>
Loss from discontinued operations per share of common stock:			
Basic	\$ (0.10)	\$ (4.45)	\$ (0.13)
Diluted	\$ (0.09)	\$ (4.44)	\$ (0.13)

(1) 2017 income tax benefit includes approximately \$18 million of tax benefit from the enactment of the TCJA. The TCJA was enacted December 22, 2017 and resulted in the federal tax rate changing from 35% to 21%.

NW Natural

As part of the holding company reorganization in October 2018, NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings, which were direct and indirect subsidiaries of NW Natural prior to the reorganization, are no longer subsidiaries of NW Natural. See Note 1 for additional information. As a result, NW Natural's financial statements reflect amounts related to these entities as discontinued operations for all periods presented. The expenses included in the results of discontinued operations are the direct operating expenses incurred by the entities that may be reasonably segregated from the costs of NW Natural's continuing operations.

The following table presents the carrying amounts of the major components of NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings that are classified as discontinued operations assets and liabilities on NW Natural's consolidated balance sheets:

<i>In thousands</i>	NW Natural Discontinued Operations
	2017
Assets:	
Cash	\$ 362
Accounts receivable	2,126
Intercompany receivables	3,664
Inventories	396
Other current assets	622
Property, plant, and equipment	11,191
Less: Accumulated depreciation	192
Other investments	13,710
Other non-current assets	—
Discontinued operations - current assets	7,170
Discontinued operations - non- current assets	24,709
Total discontinued operations assets	<u>\$ 31,879</u>
Liabilities:	
Accounts payable	\$ 1,954
Intercompany payables	266
Other current liabilities	345
Deferred tax liabilities	(16,862)
Other non-current liabilities	12,130
Discontinued operations - current liabilities	2,565
Discontinued operations - non- current liabilities	(4,732)
Total discontinued operations liabilities	<u>\$ (2,167)</u>

The following table presents the operating results prior to the holding company reorganization effective October 1, 2018 of NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings, which were historically reported within the gas storage segment and other, and is presented net of tax on NW Natural's consolidated statements of comprehensive income:

	NW Natural Discontinued Operations		
<i>In thousands, except per share data</i>	2018	2017	2016
Revenues	\$ 3,016	\$ 7,360	\$ 8,018
Expenses			
Operations and maintenance	4,151	7,423	7,387
General taxes	448	1,410	1,317
Depreciation and amortization	420	4,555	4,714
Other expenses and interest	342	650	1,097
Impairment expense	—	192,478	—
Total expenses	<u>5,361</u>	<u>206,516</u>	<u>14,515</u>
Loss from discontinued operations before income tax	(2,345)	(199,156)	(6,497)
Income tax benefit ⁽¹⁾	(622)	(71,813)	(2,557)
Loss from discontinued operations, net of tax	<u>\$ (1,723)</u>	<u>\$ (127,343)</u>	<u>\$ (3,940)</u>

⁽¹⁾ 2017 income tax benefit includes approximately \$18 million of tax benefit from the enactment of the TCJA. The TCJA was enacted December 22, 2017 and resulted in the federal tax rate changing from 35% to 21%.

NORTHWEST NATURAL HOLDING COMPANY

QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

NW Holdings

Quarter ended⁽¹⁾

In thousands, except per share data

	March 31	June 30	September 30	December 31
2018				
Operating revenues	\$ 263,635	\$ 124,567	\$ 91,239	\$ 226,702
Net income (loss) from continuing operations	42,011	(339)	(11,144)	36,783
Loss from discontinued operations, net of tax	(474)	(659)	(650)	(959)
Net income (loss)	41,537	(998)	(11,794)	35,824
Average common shares outstanding:				
Basic	28,753	28,791	28,815	28,851
Diluted	28,803	28,791	28,815	28,940
Earnings (loss) from continuing operations per share of common stock:				
Basic	1.46	(0.01)	(0.39)	1.27
Diluted	1.46	(0.01)	(0.39)	1.27
Loss from discontinued operations per share of common stock:				
Basic	(0.02)	(0.02)	(0.02)	(0.03)
Diluted	(0.02)	(0.02)	(0.02)	(0.03)
Earnings (loss) per share of common stock:				
Basic	1.44	(0.03)	(0.41)	1.24
Diluted	1.44	(0.03)	(0.41)	1.24
2017				
Operating revenues	\$ 295,724	\$ 134,476	\$ 86,212	\$ 238,626
Net income (loss) from continuing operations	41,397	4,075	(7,887)	34,488
Loss from discontinued operations, net of tax	(1,087)	(1,346)	(608)	(124,655)
Net income (loss)	40,310	2,729	(8,495)	(90,167)
Average common shares outstanding:				
Basic	28,633	28,648	28,678	28,716
Diluted	28,723	28,717	28,678	28,797
Earnings (loss) from continuing operations per share of common stock:				
Basic	1.45	0.14	(0.28)	1.20
Diluted	1.44	0.14	(0.28)	1.20
Loss from discontinued operations per share of common stock:				
Basic	(0.04)	(0.04)	(0.02)	(4.34)
Diluted	(0.04)	(0.04)	(0.02)	(4.33)
Earnings (loss) per share of common stock:				
Basic	1.41	0.10	(0.30)	(3.14)
Diluted	1.40	0.10	(0.30)	(3.13)

⁽¹⁾ Quarterly earnings (loss) per share are based upon the average number of common shares outstanding during each quarter. Variations in earnings between quarterly periods are due primarily to the seasonal nature of our business.

NORTHWEST NATURAL GAS COMPANY

QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

<i>In thousands</i>	NW Natural			
	Quarter ended			
	March 31	June 30	September 30	December 31
2018				
Operating revenues	\$ 263,635	\$ 124,563	\$ 91,227	\$ 226,146
Net income (loss) from continuing operations	42,014	(271)	(11,275)	37,581
Loss from discontinued operations, net of tax	(477)	(727)	(519)	—
Net income (loss)	<u>41,537</u>	<u>(998)</u>	<u>(11,794)</u>	<u>37,581</u>
2017				
Operating revenues	\$ 295,668	\$ 134,420	\$ 86,157	\$ 238,793
Net income (loss) from continuing operations	41,438	4,072	(7,876)	34,086
Loss from discontinued operations, net of tax	(1,128)	(1,343)	(619)	(124,253)
Net income (loss)	<u>40,310</u>	<u>2,729</u>	<u>(8,495)</u>	<u>(90,167)</u>

SCHEDULE I - CONDENSED FINANCIAL INFORMATION OF NORTHWEST NATURAL
HOLDING COMPANY

NORTHWEST NATURAL HOLDING COMPANY
CONDENSED STATEMENTS OF COMPREHENSIVE INCOME
(PARENT COMPANY ONLY)

<i>In thousands</i>	Inception through December 31, 2018
Operating expenses:	
Operations and maintenance	\$ 838
Total operating expenses	<u>838</u>
Loss from operations	(838)
Earnings from investment in subsidiaries, net of tax	36,469
Other income (expense), net	36
Interest expense, net	<u>53</u>
Income before income taxes	35,614
Income tax expense (benefit)	<u>(225)</u>
Net income	<u>\$ 35,839</u>

See Notes to Condensed Financial Statements

NORTHWEST NATURAL HOLDING COMPANY
CONDENSED BALANCE SHEETS
(PARENT COMPANY ONLY)

As of December 31,
2018

In thousands

Assets:	
Current assets:	
Cash and cash equivalents	\$ 4,011
Receivables from affiliates	2,796
Income taxes receivable	6,000
Other current assets	3,078
Total current assets	15,885
Non-current assets:	
Investments in subsidiaries	754,971
Other investments	65
Other non-current assets	310
Total non-current assets	755,346
Total assets	\$ 771,231
Liabilities and equity:	
Current liabilities:	
Accounts payable	\$ 168
Payables to affiliates	9,166
Interest accrued	32
Total current liabilities	9,366
Long-term debt	(1)
Deferred credits and other non-current liabilities:	
Deferred tax liabilities	7
Total deferred credits and other non-current liabilities	7
Equity:	
Common stock	739,722
Retained earnings	22,137
Total equity	761,859
Total liabilities and equity	\$ 771,231

See Notes to Condensed Financial Statements

NORTHWEST NATURAL HOLDING COMPANY
CONDENSED STATEMENTS OF CASH FLOWS
(PARENT COMPANY ONLY)

<i>In thousands</i>	Inception through December 31, 2018
<hr/>	
Operating activities:	
Net income	\$ 35,839
Adjustments to reconcile net income to cash used in operations:	
Equity in earnings of subsidiaries, net of tax	(36,469)
Deferred income taxes	7
Other	15
Changes in assets and liabilities:	
Receivables, net	(585)
Income and other taxes	(9,034)
Accounts payable	9,304
Interest accrued	32
Other, net	(44)
Cash used in operating activities	<u>(935)</u>
Investing activities:	
Contributions to subsidiaries	(1,804)
Cash used in investing activities	<u>(1,804)</u>
Financing activities:	
Cash dividend payments on common stock	(12,923)
Capital contributions	20,000
Other	(327)
Cash provided by financing activities	<u>6,750</u>
Increase in cash and cash equivalents	4,011
Cash and cash equivalents, beginning of period	—
Cash and cash equivalents, end of period	<u>\$ 4,011</u>

See Notes to Condensed Financial Statements

NOTES TO CONDENSED FINANCIAL STATEMENTS

1. BASIS OF PRESENTATION

NW Holdings is an energy services holding company that conducts substantially all of its business operations through its subsidiaries, particularly NW Natural. These condensed financial statements and related footnotes have been prepared in accordance with Rule 12-04, Schedule I of Regulation S-X. These financial statements, in which NW Holdings' subsidiaries have been included using the equity

method, should be read in conjunction with the consolidated financial statements and notes thereto of NW Holdings included in Item 8 of this Form 10-K.

Equity earnings of subsidiaries included earnings from NW Natural of \$36.5 million for the year ended December 31, 2018.

2. DEBT

For information concerning NW Holdings' debt obligations, see Note 8 to the consolidated financial statements included in Item 8 of this report.

NORTHWEST NATURAL HOLDING COMPANY
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

COLUMN A	COLUMN B	COLUMN C		COLUMN D	COLUMN E
		Additions		Deductions	
<i>In thousands (year ended December 31)</i>	Balance at beginning of period	Charged to costs and expenses	Charged to other accounts	Net write-offs	Balance at end of period
2018					
Reserves deducted in balance sheet from assets to which they apply:					
Allowance for uncollectible accounts	\$ 956	\$ 680	\$ —	\$ 659	\$ 977
2017					
Reserves deducted in balance sheet from assets to which they apply:					
Allowance for uncollectible accounts	\$ 1,290	\$ 865	\$ —	\$ 1,199	\$ 956
2016					
Reserves deducted in balance sheet from assets to which they apply:					
Allowance for uncollectible accounts	\$ 870	\$ 1,246	\$ —	\$ 826	\$ 1,290

NORTHWEST NATURAL GAS COMPANY
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

COLUMN A	COLUMN B	COLUMN C		COLUMN D	COLUMN E
		Additions		Deductions	
<i>In thousands (year ended December 31)</i>	Balance at beginning of period	Charged to costs and expenses	Charged to other accounts	Net write-offs	Balance at end of period
2018					
Reserves deducted in balance sheet from assets to which they apply:					
Allowance for uncollectible accounts	\$ 956	\$ 678	\$ —	\$ 659	\$ 975
2017					
Reserves deducted in balance sheet from assets to which they apply:					
Allowance for uncollectible accounts	\$ 1,290	\$ 865	\$ —	\$ 1,199	\$ 956
2016					
Reserves deducted in balance sheet from assets to which they apply:					
Allowance for uncollectible accounts	\$ 870	\$ 1,246	\$ —	\$ 826	\$ 1,290

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

NW Holdings and NW Natural management, under the supervision and with the participation of the Chief Executive Officer and Chief Financial Officer, completed an evaluation of the effectiveness of the design and operation of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the Exchange Act)). Based upon this evaluation, the Chief Executive Officer and Chief Financial Officer of each registrant have concluded that, as of the end of the period covered by this report, disclosure controls and procedures were effective to ensure that information required to be disclosed by each such registrant and included in reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission (SEC) rules and forms and that such information is accumulated and communicated to management of each registrant, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

(b) Changes in Internal Control Over Financial Reporting

NW Holdings and NW Natural management are responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in the Exchange Act Rule 13a-15(f). There have been no changes in internal control over financial reporting that occurred during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting for NW Holdings and NW Natural.

The statements contained in Exhibit 31a., Exhibit 31b., Exhibit 31c. and Exhibit 31d. should be considered in light of, and read together with, the information set forth in this Item 9(a).

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The "Information Concerning Nominees and Continuing Directors", "Corporate Governance", and "Section 16(a) Beneficial Ownership Reporting Compliance" contained in NW Holdings' definitive Proxy Statement for the 2019 Annual Meeting of Shareholders is hereby incorporated by reference.

EXECUTIVE OFFICERS		
Name	Age at Dec. 31, 2018	Positions held during last five years ⁽¹⁾
David H. Anderson*	57	Chief Executive Officer and President ⁽²⁾ (2016-); Chief Operating Officer and President (2015-2016); Executive Vice President and Chief Operating Officer (2014-2015); Executive Vice President Operations and Regulation (2013-2014); Senior Vice President and Chief Financial Officer (2004-2013).
Frank H. Burkhartsmeier*	54	Senior Vice President and Chief Financial Officer ⁽²⁾ (2017-); President and Chief Executive Officer of Renewables, Avangrid Renewables (2015-2017); Senior Vice President of Finance, Iberdrola Renewables Holdings, Inc. (2012-2015).
Lea Anne Doolittle ⁽³⁾	63	Senior Vice President and Chief Administrative Officer (2013-2018); Senior Vice President (2008-2013).
James R. Downing	49	Vice President and Chief Information Officer (2017-); Chief Information Officer, WorleyParsons (America's Division) (2016-2017); Executive Service Delivery Manager for SAP, British Petroleum (2011-2015).
Shawn M. Filippi*	46	Vice President, Chief Compliance Officer and Corporate Secretary ⁽²⁾ (2016-); Vice President and Corporate Secretary (2015-2016); Senior Legal Counsel (2011-2014); Assistant Corporate Secretary (2010-2014).
Kimberly A. Heiting	49	Senior Vice President, Operations and Chief Marketing Officer (2018-); Senior Vice President, Communications and Chief Marketing Officer (2018); Vice President, Communications and Chief Marketing Officer (2015-2018); Chief Marketing & Communications Officer (2013-2014); Chief Corporate Communications Officer (2011-2013).
Jon G. Huddleston	56	Vice President, Engineering and Utility Operations (2018-); Senior Director, Utility Operations (2014-2018); Director, Utility Operations (2013-2014); Process Director (2007-2013).
Thomas J. Imeson ⁽⁴⁾	68	Vice President of Public Affairs (2014-); Director of Public Affairs, Port of Portland (2006-2014).
Justin Palfreyman	40	Vice President, Strategy and Business Development (2017-); Vice President, Business Development (2016-2017); Director, Power, Energy and Infrastructure Group, Lazard, Freres & Co. (2009-2016).
Melinda B. Rogers	53	Vice President, Chief Human Resources and Diversity Officer (2018-); Senior Director of Human Resources (2018); Senior Manager, Organizational Effectiveness and Talent Acquisition (2015-2017); Senior Associate, Plan B (2014-2015); Director, Executive Development Center, Willamette University (2011-2015).
Lori Russell	59	Vice President, Utility Services (2016-); Utility Field Operations Director (2013-2016); Serve Customer Process Director (2008-2013).
MardiLyn Saathoff*	62	Senior Vice President, Regulation and General Counsel ⁽⁵⁾ (2016-); Senior Vice President and General Counsel (2015-2016); Vice President, Legal, Risk and Compliance (2013-2014); Deputy General Counsel (2010-2013); Chief Governance Officer and Corporate Secretary (2008-2014).
David A. Weber	59	President and Chief Executive Officer, NW Natural Gas Storage, LLC and Gill Ranch Storage, LLC (2011-).
Brody J. Wilson*	39	Vice President, Chief Accounting Officer, Controller and Treasurer ⁽²⁾ (2017-); Chief Financial Officer (Interim), Treasurer, Chief Accounting Officer and Controller (2016-2017); Chief Accounting Officer, Controller and Assistant Treasurer (2016); Controller (2013-2015); Acting Controller (2013); Accounting Director (2012-2013).

DIRECTOR (NORTHWEST NATURAL GAS COMPANY ONLY)**

Name	Age at Dec. 31, 2018	Positions held during last five years ⁽¹⁾
Steven E. Wynne	66	Executive Vice President, Moda, Inc., a privately-held healthcare insurance company (2012-); Director, FLIR Systems, Inc. (1999-); Director, JELD-WEN Holding Inc. (2012-); Director, Pendleton Woolen Mills, Inc. (2013-); Director, Lone Rock Resources, Inc. (2016-); Director, Citifyd Inc. (2013-); Trustee, Willamette University (1999-); Trustee, Portland Center Stage (2012-); Executive Vice President, JELD-WEN, Inc. (2011-2012); President and Chief Executive Officer, SBI International, Ltd. (2004-2007); Partner, Ater Wynne LLP (2001-2002; 2003-2004); President and Chief Executive Officer, Adidas (1995-2000)

Mr. Wynne's senior management experience with a variety of companies, board service on a number of public and private companies and longstanding legal practice in the areas of corporate finance, securities and mergers and acquisitions qualify him to provide insight and guidance in the areas of corporate governance, strategic planning, enterprise risk management, finance and operations.

* Executive Officer of Northwest Natural Holding Company and Northwest Natural Gas Company.

** Director of Northwest Natural Gas Company only. All other directors of Northwest Natural Gas Company are also directors of Northwest Natural Holding Company, and information regarding all directors concurrently serving on the Board of Directors of Northwest Natural Gas Company and Northwest Natural Holding Company will be incorporated by reference to our definitive Proxy Statement for the 2019 Annual Meeting of Shareholders.

⁽¹⁾ Unless otherwise specified, all positions held at Northwest Natural Gas Company.

⁽²⁾ Position held at Northwest Natural Holding Company (beginning March 2018) and Northwest Natural Gas Company.

⁽³⁾ Ms. Doolittle retired effective December 31, 2018.

⁽⁴⁾ Mr. Imeson announced his intention to retire effective April 1, 2019. The Board of Directors appointed Kathryn Williams to become Vice President of Public Affairs effective April 1, 2019.

⁽⁵⁾ Ms. Saathoff is Senior Vice President and General Counsel of Northwest Natural Holding Company (beginning March 2018) and Senior Vice President, Regulation and General Counsel of Northwest Natural Gas Company.

Each executive officer serves successive annual terms; present terms end at the 2019 annual meeting. There are no family relationships among our executive officers, directors or any person chosen to become one of our officers or directors. NW Holdings and NW Natural have adopted a Code of Ethics (Code) applicable to all employees, officers, and directors that is available on our website at www.nwnaturalholdings.com. We intend to disclose on our website at www.nwnaturalholdings.com any amendments to the Code or waivers of the Code for executive officers and directors.

ITEM 11. EXECUTIVE COMPENSATION

The information concerning "Executive Compensation", "Report of the Organization and Executive Compensation Committee", and "Compensation Committee Interlocks and

Insider Participation" contained in NW Holdings' definitive Proxy Statement for the 2019 Annual Meeting of Shareholders is hereby incorporated by reference. Information related to Executive Officers as of December 31, 2018 is reflected in Part III, Item 10, above.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

As of February 22, 2019, NW Holdings owned 100% of the outstanding common stock of NW Natural.

The following table sets forth information regarding compensation plans under which equity securities of NW Holdings are authorized for issuance as of December 31, 2018 (see Note 7 to the Consolidated Financial Statements):

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders:			
LTIP ⁽¹⁾⁽²⁾	173,175	n/a	574,787
Restated Stock Option Plan	55,938	\$ 44.96	—
Employee Stock Purchase Plan	20,022	60.07	204,317
Equity compensation plans not approved by security holders:			
Executive Deferred Compensation Plan (EDCP) ⁽³⁾	1,063	n/a	n/a
Directors Deferred Compensation Plan (DDCP) ⁽³⁾	41,069	n/a	n/a
Deferred Compensation Plan for Directors and Executives (DCP) ⁽⁴⁾	194,205	n/a	n/a
Total	485,472		779,104

- (1) Awards may be granted under the LTIP as Performance Share Awards, Restricted Stock Units, or stock options. Shares issued pursuant to Performance Share Awards and Restricted Stock Units under the LTIP do not include an exercise price, but are payable when the award criteria are satisfied. The number of shares shown in column (a) include 82,680 Restricted Stock Units and 90,495 Performance Share Awards, reflecting the number of shares to be issued as performance share awards under outstanding Performance Share Awards if target performance levels are achieved. If the maximum awards were paid pursuant to the Performance Share Awards outstanding at December 31, 2018, the number of shares shown in column (a) would increase by 90,495 shares, reflecting the maximum share award of 200% of target, and the number of shares shown in column (c) would decrease by the same amount of shares. No stock options or other types of award have been issued under the LTIP.
- (2) The number of shares shown in column (c) includes shares that are available for future issuance under the LTIP as Restricted Stock Units, Performance Share Awards, or stock options at December 31, 2018.
- (3) Prior to January 1, 2005, deferred amounts were credited, at the participant's election, to either a "cash account" or a "stock account." If deferred amounts were credited to stock accounts, such accounts were credited with a number of shares of NW Natural (now NW Holdings) common stock based on the purchase price of the common stock on the next purchase date under our Dividend Reinvestment and Direct Stock Purchase Plan, and such accounts were credited with additional shares based on the deemed reinvestment of dividends. Cash accounts are credited quarterly with interest at a rate equal to Moody's Average Corporate Bond Yield plus two percentage points, subject to a 6% minimum rate. At the election of the participant, deferred balances in the stock accounts are payable after termination of Board service or employment in a lump sum, in installments over a period not to exceed 10 years in the case of the DDCP, or 15 years in the case of the EDCP, or in a combination of lump sum and installments. Amounts credited to stock accounts are payable solely in shares of common stock and cash for fractional shares, and amounts in the above table represent the aggregate number of shares credited to participant's stock accounts. We have contributed common stock to the trustee of the Umbrella Trusts such that the Umbrella Trusts hold approximately the number of shares of common stock equal to the number of shares credited to all participants' stock accounts.
- (4) Effective January 1, 2005, the EDCP and DDCP were closed to new participants and replaced with the DCP. The DCP continues the basic provisions of the EDCP and DDCP under which deferred amounts are credited to either a "cash account" or a "stock account." Stock accounts represent a right to receive shares of NW Holdings common stock on a deferred basis, and such accounts are credited with additional shares based on the deemed reinvestment of dividends. Effective January 1, 2007, cash accounts are credited quarterly with interest at a rate equal to Moody's Average Corporate Bond Yield. Our obligation to pay deferred compensation in accordance with the terms of the DCP will generally become due on retirement, death, or other termination of service, and will be paid in a lump sum or in installments of five, 10, or 15 years as elected by the participant in accordance with the terms of the DCP. Amounts credited to stock accounts are payable solely in shares of common stock and cash for fractional shares, and amounts in the above table represent the aggregate number of shares credited to participants' stock accounts. We have contributed common stock to the trustee of the Supplemental Trust such that this trust holds approximately the number of common shares equal to the number of shares credited to all participants' stock accounts. The right of each participant in the DCP is that of a general, unsecured creditor of the Company.

The information captioned "Beneficial Ownership of Common Stock by Directors and Executive Officers" and "Security Ownership of Common Stock of Certain Beneficial Owners" contained in NW Holdings' definitive Proxy Statement for the 2019 Annual Meeting of Shareholders is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information captioned "Transactions with Related Persons" and "Corporate Governance" in NW Holdings' definitive Proxy Statement for the 2019 Annual Meeting of Shareholders is hereby incorporated by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

NW Holdings

The information captioned "2018 and 2017 Audit Firm Fees" in NW Holdings' definitive Proxy Statement for the 2019 Annual Meeting of Shareholders is hereby incorporated by reference.

NW Natural

The following table shows the fees and expenses of NW Natural, paid or accrued for the integrated audits of the consolidated financial statements and other services provided by NW Natural's independent registered public accounting firm, PricewaterhouseCoopers LLP, for fiscal years 2018 and 2017:

<i>In thousands</i>	2018	2017
Audit Fees	\$ 1,379	\$ 1,262
Audit-Related Fees	30	115
Tax Fees	34	35
All Other Fees	4	3
Total	<u>\$ 1,447</u>	<u>\$ 1,415</u>

AUDIT FEES. This category includes fees and expenses for services rendered for the integrated audit of the consolidated financial statements included in the Annual Report on Form 10-K and the review of the quarterly financial statements included in the Quarterly Reports on Form 10-Q. The integrated audit includes the review of our internal control over financial reporting in compliance with Section 404 of the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley Act). In addition, amounts include fees for services routinely provided by the auditor in connection with regulatory filings, including issuance of consents and comfort letters relating to the registration of Company securities and assistance with the review of documents filed with the SEC.

AUDIT-RELATED FEES. This category includes fees for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and internal control over financial reporting, including fees and expenses related to consultations for financial accounting and reporting, in addition to fees for EPA assurance letters.

TAX FEES. This category includes fees for tax compliance, and review services rendered for NW Natural's income tax returns.

ALL OTHER FEES. This category relates to services other than those described above. The amount reflects payments for accounting research tools in each of 2018 and 2017, and educational seminars in 2018.

PRE-APPROVAL POLICY FOR AUDIT AND NON-AUDIT SERVICES. The Audit Committee of NW Natural approved or ratified 100 percent of 2018 and 2017 services for audit, audit-related, tax services and all other fees, including audit services relating to compliance with Section 404 of the Sarbanes-Oxley Act. The chair of the Audit Committee of NW Natural is authorized to pre-approve non-audit services between meetings of the Audit Committee and must report such approvals at the next Audit Committee meeting.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this exhibit 99.1:

1. A list of all Financial Statements and Supplemental Schedules is incorporated by reference to Item 8.
2. List of Exhibits filed:

Reference is made to the Exhibit Index commencing on the following page.

ITEM 16. FORM 10-K SUMMARY

None.

NORTHWEST NATURAL HOLDING COMPANY

NORTHWEST NATURAL GAS COMPANY

Exhibit Index to Annual Report on Form 10-K
For the Fiscal Year Ended December 31, 2018

<u>Exhibit Number</u>	<u>Document</u>
*2a.	Agreement and Plan of Merger by and among Northwest Natural Gas Company, Northwest Natural Holding Company, and NWN Merger Sub, Inc., dated as of March 7, 2018 (incorporated by reference to Exhibit 2 to the Current Report on Form 8-K dated March 13, 2018, File No. 1-15973).
*2b.	Amendment to Agreement and Plan of Merger between Northwest Natural Gas Company, Northwest Natural Holding Company, and NWN Merger Sub, Inc., dated September 26, 2018 (incorporated by reference to Exhibit 2.1(b) to the Form 8-K dated October 1, 2018, File No. 1-38681).
*3a.	Amended and Restated Articles of Incorporation of Northwest Natural Holding Company (incorporated by reference to Exhibit 3.1 to the Form 8-K dated October 1, 2018, File No. 1-38681).
*3b.	Amended and Restated Articles of Incorporation of Northwest Natural Gas Company (incorporated by reference to Exhibit 3.3 to the Form 8-K dated October 1, 2018, File No. 1-15973).
*3c.	Amended and Restated Bylaws of Northwest Natural Holding Company (incorporated by reference to Exhibit 3.2 to the Form 8-K dated October 1, 2018, File No. 1-38681).
*3d.	Bylaws of Northwest Natural Gas Company (incorporated by reference to Exhibit 3.1 to the Form 8-K filed December 22, 2017, File No. 1-15973).
*4a.	Copy of Mortgage and Deed of Trust of Northwest Natural Gas Company, dated as of July 1, 1946 (Mortgage and Deed of Trust), to Bankers Trust (to whom Deutsche Bank Trust Company Americas is the successor), Trustee (incorporated by reference to Exhibit 7(j) in File No. 2-6494); and copies of Supplemental Indentures Nos. 1 through 14 to the Mortgage and Deed of Trust, dated respectively, as of June 1, 1949, March 1, 1954, April 1, 1956, February 1, 1959, July 1, 1961, January 1, 1964, March 1, 1966, December 1, 1969, April 1, 1971, January 1, 1975, December 1, 1975, July 1, 1981, June 1, 1985 and November 1, 1985 (incorporated by reference to Exhibit 4(d) in File No. 33-1929); Supplemental Indenture No. 15 to the Mortgage and Deed of Trust, dated as of July 1, 1986 (filed as Exhibit 4(c) in File No. 33-24168); Supplemental Indentures Nos. 16, 17 and 18 to the Mortgage and Deed of Trust, dated, respectively, as of November 1, 1988, October 1, 1989 and July 1, 1990 (incorporated by reference to Exhibit 4(c) in File No. 33-40482); Supplemental Indenture No. 19 to the Mortgage and Deed of Trust, dated as of June 1, 1991 (incorporated by reference to Exhibit 4(c) in File No. 33-64014).
*4b.	Supplemental Indenture No. 20 to the Mortgage and Deed of Trust, dated as of June 1, 1993 (incorporated by reference to Exhibit 4a.(1) to Form 10-K for year ended December 31, 1993, File No. 0-00994).
*4c.	Supplemental Indenture No. 21 to the Mortgage and Deed of Trust, dated as of October 15, 2012 (incorporated by reference to Exhibit 4.1 to Form 8-K dated October 26, 2012, File No. 1-15973).
*4d.	Supplemental Indenture No. 22 to the Mortgage and Deed of Trust, dated as of November 1, 2016 (incorporated by reference to Exhibit 4.1 to Form 10-Q for the quarter ended September 30, 2016, File No. 1-15973).
*4e.	Supplemental Indenture No. 23 to the Mortgage and Deed of Trust, dated as of September 1, 2018 (incorporated by reference to Exhibit 4(a) to Form 8-K dated September 10, 2018, File No. 1-15973).
*4f.	Copy of Indenture, dated as of June 1, 1991, between Northwest Natural Gas Company and Bankers Trust Company (to whom Deutsch Bank Trust Company Americas is successor), Trustee, relating to Northwest Natural Gas Company's Unsecured Debt Securities (incorporated by reference to Exhibit 4(e) in File No. 33-64014).
*4g.	Credit Agreement, dated as of October 2, 2018, among Northwest Natural Holding Company and the lenders party thereto, with JPMorgan Chase Bank, N.A. as administrative agent and Bank of America, N.A., U.S. Bank National Association, and Wells Fargo Bank, National Association, as co-syndication agents (incorporated by reference to Exhibit 4.1 to Form 8-K dated October 3, 2018, File No. 1-38681).

- *4h. Credit Agreement, dated as of October 2, 2018, among Northwest Natural Gas Company and the lenders party thereto, with JPMorgan Chase Bank, N.A. as administrative agent and Bank of America, N.A., U.S. Bank National Association, and Wells Fargo Bank, National Association, as co-syndication agents (incorporated by reference to Exhibit 4.1 to Form 8-K dated October 3, 2018, File No. 1-15973).
- *10 Purchase and Sale Agreement dated June 20, 2018, between NW Natural Gas Storage LLC and SENSEA Holdings LLC (incorporated by reference to Exhibit 10 to Form 10-Q for the quarter ended June 30, 2018, File No. 1-15973).
- 21 Subsidiaries of Northwest Natural Holding Company.
- 23a. Consent of PricewaterhouseCoopers LLP - NW Holdings.
- 23b. Consent of PricewaterhouseCoopers LLP - NW Natural.
- 31a. Certification of Principal Executive Officer of Northwest Natural Gas Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
- 31b. Certification of Principal Financial Officer of Northwest Natural Gas Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
- 31c. Certification of Principal Executive Officer of Northwest Natural Holding Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
- 31d. Certification of Principal Financial Officer of Northwest Natural Holding Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
- **32a. Certification of Principal Executive Officer and Principal Financial Officer of Northwest Natural Gas Company Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- **32b. Certification of Principal Executive Officer and Principal Financial Officer of Northwest Natural Holding Company Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101. The following materials formatted in Extensible Business Reporting Language (XBRL):
 - (i) Consolidated Statements of Income;
 - (ii) Consolidated Balance Sheets;
 - (iii) Consolidated Statements of Cash Flows; and
 - (iv) Related notes.

Executive Compensation Plans and Arrangements:

- *10a. Executive Supplemental Retirement Income Plan, 2018 Restatement (incorporated herein by reference to Exhibit 10.6 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10b. Supplemental Executive Retirement Plan, 2018 Restatement (incorporated herein by reference to Exhibit 10.7 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10c. Northwest Natural Gas Company Supplemental Trust, effective January 1, 2005, restated as of October 1, 2018 (incorporated by reference to Exhibit 10.9 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10d. Northwest Natural Gas Company Umbrella Trust for Directors, effective January 1, 1991, restated as of October 1, 2018 (incorporated by reference to Exhibit 10.11 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10e. Northwest Natural Gas Company Umbrella Trust for Executives, effective January 1, 1988, restated as of October 1, 2018 (incorporated by reference to Exhibit 10.10 to the Form 8-K dated October 1, 2018, File No. 1-38681).

- *10f. Restated Stock Option Plan, as amended effective December 14, 2006 (incorporated by reference to Exhibit 10c. to Form 10-K for 2006, File No. 1-15973).
- *10g. Form of Restated Stock Option Plan Agreement (incorporated by reference to Exhibit 10h. to Form 10-K for 2009, File No. 1-15973).
- *10h. Executive Deferred Compensation Plan, effective as of January 1, 1987, restated as of October 1, 2018 (incorporated by reference to Exhibit 10.4 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10i. Directors Deferred Compensation Plan, effective June 1, 1981, restated as of October 1, 2018 (incorporated by reference to Exhibit 10.5 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10j. Deferred Compensation Plan for Directors and Executives, effective January 1, 2005, restated as of October 1, 2018 (incorporated by reference to Exhibit 10.3 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- 10k. Intentionally omitted.
- 10l. Form of Indemnity Agreement as entered into between Northwest Natural Gas Company and each director and certain executive officers.
- 10m. Form of Indemnity Agreement as entered into between Northwest Natural Holding Company and each director and certain executive officers.
- *10n. Non-Employee Directors Stock Compensation Plan, as amended effective December 15, 2005 (incorporated by reference to Exhibit 10.2 to Form 8-K dated December 16, 2005, File No. 1-15973).
- *10o. Executive Annual Incentive Plan, effective January 1, 2017 (incorporated by reference to Exhibit 10o. to Form 10-K for 2016, File No. 1-15973).
- *10p. Executive Annual Incentive Plan, effective January 1, 2018, as amended and restated effective October 1, 2018 (incorporated by reference to Exhibit 10.8 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- 10q. Executive Annual Incentive Plan, effective January 1, 2019.
- *10r. Form of Change in Control Severance Agreement between Northwest Natural Gas Company and each executive officer, as amended and restated as of October 1, 2018 (incorporated by reference to Exhibit 10.2 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10s. Northwest Natural Gas Company Long Term Incentive Plan, as amended and restated effective May 24, 2012 (incorporated by reference to Exhibit 10r to Form 10-K for 2012, File No. 1-15973).
- *10t. Northwest Natural Gas Company Long Term Incentive Plan, as amended and restated effective May 25, 2017 (incorporated by reference to Exhibit 10s to Form 10-K for 2017, File No. 1-15973).
- *10u. Northwest Natural Holding Company Long Term Incentive Plan, as amended and restated as of October 1, 2018 (incorporated by reference to Exhibit 10.1 to the Form 8-K dated October 1, 2018, File No. 1-38681).
- *10v. Form of Long Term Incentive Award Agreement under the Long Term Incentive Plan (2016-2018) (incorporated by reference to Exhibit 10w. to Form 10-K for 2015, File No. 1-15973).
- *10w. Form of Long Term Incentive Award Agreement under the Long Term Incentive Plan between Northwest Natural Gas Company and an Executive Officer (2016-2018) (incorporated by reference to Exhibit 10x. to Form 10-K for 2015, File No. 1-15973).
- *10x. Form of Long Term Incentive Award Agreement under Long Term Incentive Plan (2017-2019) (incorporated by reference to Exhibit 10x. to Form 10-K for 2016, File No. 1-15973).

- *10y. Form of Performances Share Long Term Incentive Agreement under Long Term Incentive Plan (2018-2020) (incorporated by reference to Exhibit 10y. to Form 10-K for 2017, File No. 1-15973).
- 10z. Form of Long Term Incentive Award Agreement under Long Term Incentive Plan (2019-2021).
- *10aa. Form of Consent dated December 14, 2006 entered into by each executive officer with respect to amendments to the Executive Supplemental Retirement Income Plan, the Supplemental Executive Retirement Plan and certain change in control severance agreements (incorporated by reference to Exhibit 10.1 to Form 8-K dated December 19, 2006, File No. 1-15973).
- *10bb. Consent to Amendment of Deferred Compensation Plan for Directors and Executives, dated February 28, 2008 entered into by each executive officer (incorporated by reference to Exhibit 10bb to Form 10-K for 2007, File No. 1-15973).
- 10cc. Form of Restricted Stock Unit Award Agreement under Long Term Incentive Plan (2019).
- *10dd. Form of Restricted Stock Unit Award Agreement under Long Term Incentive Plan (2018) (incorporated by reference to Exhibit 10bb. to Form 10-K for 2017, File No. 1-15973).
- *10ee. Corrected Form of Restricted Stock Unit Award Agreement under Long Term Incentive Plan (2017) (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended March 31, 2017, File No. 1-15973).
- *10ff. Form of Restricted Stock Unit Award Agreement under Long Term Incentive Plan (2016) (incorporated by reference to Exhibit 10bb. to Form 10-K for 2015, File No. 1-15973).
- *10gg. Form of Amendment to Restricted Stock Unit Award Agreements (2013, 2014 and 2015) (incorporated by reference to Exhibit 10cc to Form 10-K for 2016, File No. 1-15973).
- *10hh. Form of Restricted Stock Unit Award Agreement under the Long Term Incentive Plan (2013, 2014 and 2015) (incorporated by reference to Exhibit 10aa. to Form 10-K for 2012, File No. 1-15973).
- 10ii. Form of Director Restricted Stock Unit Award Agreement under Long Term Incentive Plan (2018).
- *10jj. Form of Director Restricted Stock Unit Award Agreement under the Long Term Incentive Plan (2017) (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2017, File No 1-15973).
- *10kk. Severance Agreement between Northwest Natural Gas Company and an executive officer, dated August 1, 2016 (incorporated by reference to Exhibit 10.1 to Form 8-K dated July 29, 2016, File No. 1-15973).
- *10ll. Form of Restricted Stock Unit Award Agreement between Northwest Natural Gas Company and an executive officer dated as of July 27, 2016 (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2016, File No. 1-15973).
- *10mm. Form of Severance Agreement between Northwest Natural Gas Company and an executive officer, dated May 17, 2017 (incorporated by reference to Exhibit 10.1 to Form 8-K dated April 24, 2017, File No. 1-15973).
- *10nn. Form of Special Restricted Stock Unit Agreement between Northwest Natural Gas Company and an executive officer, dated May 17, 2017 (incorporated by reference to Exhibit 10.2 to Form 8-K dated April 24, 2017, File No. 1-15973).
- *10oo. Form of Hire-On Bonus Agreement between Northwest Natural Gas Company and an executive officer, dated May 17, 2017 (incorporated by reference to Exhibit 10.3 to Form 8-K dated April 24, 2017, File No. 1-15973).
- *10pp. Form of Special Retention Restricted Stock Unit Agreement between Northwest Natural Gas Company and an executive officer, dated September 30, 2016 (incorporated by reference to Exhibit 10qq. to Form 10-K for 2017, File No. 1-15973).

- *10qq. Form of Hire-On Bonus Agreement between Northwest Natural Gas Company and an executive officer, dated September 30, 2016 (incorporated by reference to Exhibit 10rr. to Form 10-K for 2017, File No. 1-15973).
- *10rr. Cash Retention Agreement between Northwest Natural Gas Company and an executive officer, dated as of March 1, 2018 (incorporated by reference to Exhibit 10ss. to Form 10-K for 2017, File No. 1-15973).
- 10ss. Annual Incentive Plan for NW Natural Gas Storage, LLC, as amended effective January 1, 2019.
- *10tt. Long Term Incentive Plan for NW Natural Gas Storage, LLC, as amended effective January 1, 2016 (incorporated by reference to Exhibit 10pp. to Form 10-K for 2016, File No. 1-15973).

*Incorporated herein by reference as indicated

**Pursuant to Item 601(b)(32)(ii) of Regulation S-K, this certificate is not being "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, each registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized. The signature for each undersigned company shall be deemed to relate only to matters having reference to such company and its subsidiaries.

NORTHWEST NATURAL HOLDING COMPANY

By: /s/ David H. Anderson

David H. Anderson

President and Chief Executive Officer

Date: March 1, 2019

NORTHWEST NATURAL GAS COMPANY

By: /s/ David H. Anderson

David H. Anderson

President and Chief Executive Officer

Date: March 1, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated. The signatures of each of the undersigned shall be deemed to relate only to matters having reference to the below named company and its subsidiaries.

NORTHWEST NATURAL HOLDING COMPANY

Signature	Title	Date
<u>/s/ David H. Anderson</u> David H. Anderson President and Chief Executive Officer	Principal Executive Officer and Director	March 1, 2019
<u>/s/ Frank H. Burkhartsmeier</u> Frank H. Burkhartsmeier Senior Vice President and Chief Financial Officer	Principal Financial Officer	March 1, 2019
<u>/s/ Brody J. Wilson</u> Brody J. Wilson Vice President, Treasurer, Chief Accounting Officer and Controller	Principal Accounting Officer	March 1, 2019
<u>/s/ Timothy P. Boyle</u> Timothy P. Boyle	Director)))
<u>/s/ Martha L. Byorum</u> Martha L. Byorum	Director)))
<u>/s/ John D. Carter</u> John D. Carter	Director)))
<u>/s/ Mark S. Dodson</u> Mark S. Dodson	Director)))
<u>/s/ C. Scott Gibson</u> C. Scott Gibson	Director	March 1, 2019))
<u>/s/ Tod R. Hamachek</u> Tod R. Hamachek	Director)))
<u>/s/ Jane L. Peverett</u> Jane L. Peverett	Director)))
<u>/s/ Kenneth Thrasher</u> Kenneth Thrasher	Director)))
<u>/s/ Malia H. Wasson</u> Malia H. Wasson	Director)))
<u>/s/ Charles A. Wilhoite</u> Charles A. Wilhoite	Director))

NORTHWEST NATURAL GAS COMPANY

Signature	Title	Date
<u>/s/ David H. Anderson</u> David H. Anderson President and Chief Executive Officer	Principal Executive Officer and Director	March 1, 2019
<u>/s/ Frank H. Burkhartsmeyer</u> Frank H. Burkhartsmeyer Senior Vice President and Chief Financial Officer	Principal Financial Officer	March 1, 2019
<u>/s/ Brody J. Wilson</u> Brody J. Wilson Vice President, Treasurer, Chief Accounting Officer and Controller	Principal Accounting Officer	March 1, 2019
<u>/s/ Timothy P. Boyle</u> Timothy P. Boyle	Director)
<u>/s/ Martha L. Byorum</u> Martha L. Byorum	Director)
<u>/s/ John D. Carter</u> John D. Carter	Director)
<u>/s/ Mark S. Dodson</u> Mark S. Dodson	Director)
<u>/s/ C. Scott Gibson</u> C. Scott Gibson	Director)
<u>/s/ Tod R. Hamachek</u> Tod R. Hamachek	Director	March 1, 2019
<u>/s/ Jane L. Peverett</u> Jane L. Peverett	Director)
<u>/s/ Kenneth Thrasher</u> Kenneth Thrasher	Director)
<u>/s/ Malia H. Wasson</u> Malia H. Wasson	Director)
<u>/s/ Charles A. Wilhoite</u> Charles A. Wilhoite	Director)
<u>/s/ Steven E. Wynne</u> Steven E. Wynne	Director)

SUBSIDIARIES OF NORTHWEST NATURAL HOLDING COMPANY

an Oregon Corporation

Name of Subsidiary	Jurisdiction Organized
Northwest Natural Gas Company (dba NW Natural)	Oregon
Northwest Energy Corporation ⁽¹⁾	Oregon
NWN Gas Reserves LLC ⁽¹⁾	Oregon
Gill Ranch Storage, LLC	Oregon
NW Natural Energy, LLC	Oregon
NW Natural Gas Storage, LLC	Oregon
NNG Financial Corporation	Oregon
Trail West Holdings, LLC	Delaware
Trail West Pipeline, LLC	Delaware
BL Credit Holdings, LLC	Delaware
Northwest Biogas, LLC	Oregon
KB Pipeline Company	Oregon
NW Natural Water Company, LLC	Oregon
NW Natural Water of Oregon, LLC	Oregon
NW Natural Water of Washington, LLC	Washington
Cascadia Water, LLC	Washington
NW Natural Water of Idaho, LLC	Idaho
Gem State Water Company, LLC	Idaho
Falls Water Co., Inc.	Idaho
Salmon Valley Water Company	Oregon

⁽¹⁾ Subsidiary of Northwest Natural Gas Company

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form on S-8 (Nos. 333-187005-01, 333-180350-01, 333-134973-01, 333-100885-01, 333-139819-01, 333-221347-01 and 333-227687) and Form S-3 (No. 333-227662) of Northwest Natural Holding Company of our report dated March 1, 2019 relating to the financial statements, financial statement schedules and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Portland, Oregon
March 1, 2019

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-214425) and Form S-3 (No. 333-227662-01) of Northwest Natural Gas Company of our report dated March 1, 2019 relating to the financial statements and financial statement schedule, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Portland, Oregon
March 1, 2019

CERTIFICATION

I, David H. Anderson, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2018 of Northwest Natural Gas Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2019

/s/ David H. Anderson

David H. Anderson

President and Chief Executive Officer

CERTIFICATION

I, Frank H. Burkhartsmeyer, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2018 of Northwest Natural Gas Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2019

/s/ Frank H. Burkhartsmeyer

Frank H. Burkhartsmeyer

Senior Vice President and Chief Financial Officer

CERTIFICATION

I, David H. Anderson, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2018 of Northwest Natural Holding Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2019

/s/ David H. Anderson

David H. Anderson

President and Chief Executive Officer

CERTIFICATION

I, Frank H. Burkhartsmeyer, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2018 of Northwest Natural Holding Company;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2019

/s/ Frank H. Burkhartsmeyer

Frank H. Burkhartsmeyer

Senior Vice President and Chief Financial Officer

NORTHWEST NATURAL GAS COMPANY

Certificate Pursuant to Section 906 of Sarbanes – Oxley Act of 2002

Each of the undersigned, DAVID H. ANDERSON, Chief Executive Officer, and FRANK H. BURKHARTSMEYER, the Chief Financial Officer, of NORTHWEST NATURAL GAS COMPANY (the Company), DOES HEREBY CERTIFY that:

1. The Company's Annual Report on Form 10-K for the year ended December 31, 2018 (the Report) fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. Information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, each of the undersigned has caused this instrument to be executed this 1st day of March 2019.

/s/ David H. Anderson
David H. Anderson
President and Chief Executive Officer

/s/ Frank H. Burkhartsmeier
Frank H. Burkhartsmeier
Senior Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Northwest Natural Gas Company and will be retained by Northwest Natural Gas Company and furnished to the Securities and Exchange Commission or its staff upon request.

NORTHWEST NATURAL HOLDING COMPANY

Certificate Pursuant to Section 906 of Sarbanes – Oxley Act of 2002

Each of the undersigned, DAVID H. ANDERSON, Chief Executive Officer, and FRANK H. BURKHARTSMEYER, the Chief Financial Officer, of NORTHWEST NATURAL HOLDING COMPANY (the Company), DOES HEREBY CERTIFY that:

1. The Company's Annual Report on Form 10-K for the year ended December 31, 2018 (the Report) fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. Information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, each of the undersigned has caused this instrument to be executed this 1st day of March 2019.

/s/ David H. Anderson
David H. Anderson
President and Chief Executive Officer

/s/ Frank H. Burkhartsmeier
Frank H. Burkhartsmeier
Senior Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Northwest Natural Holding Company and will be retained by Northwest Natural Holding Company and furnished to the Securities and Exchange Commission or its staff upon request.



📍 The Astoria-Megler Bridge in NW Natural's service territory.

INVESTOR AND SHAREHOLDER INFORMATION

STOCK TRANSFER AGENT AND REGISTRAR

For common stock:
American Stock Transfer
& Trust Company
6201 15th Avenue
Brooklyn, NY 11219
(888) 777-0321
web: astfinancial.com
email: info@astfinancial.com

TRUSTEE AND BOND PAYING AGENT

For bond issues:
Deutsche Bank
Trust Company Americas
60 Wall Street
New York, NY 10005
(800) 735-7777



NIKKI SPARLEY

Director, Investor Relations
Toll free (800) 422-4012, Ext. 2530
Direct (503) 721-2530
nikki.sparley@nwnatural.com



CATHY CROWN

Manager, Shareholder Services
Toll free (800) 422-4012, Ext. 2402
Direct (503) 220-2402
cathy.crown@nwnatural.com

COMMUNITY & SUSTAINABILITY REPORT

Learn more about NW Natural's community involvement and philanthropic contributions, environmental stewardship, employee safety efforts and other company initiatives.

View the Community & Sustainability Annual Report at:

nwnatural.com/aboutnwnatural/community

LOW-INCOME PROGRAMS

NW Natural helps low-income customers manage their bills through a variety of programs. Shareholders and customers support the Gas Assistance Program, which supplements federal and state assistance programs. In addition, the Oregon Low-Income Gas Assistance Program uses public purpose fees to help low-income customers pay their utility bills. The Oregon Low-Income Energy Efficiency Program, also paid for by public purpose charges, helps customers in need acquire high-efficiency equipment and weatherization upgrades.

View the Low-Income Programs at:

nwnatural.com/residential

ENERGY-EFFICIENCY PROGRAMS

NW Natural partners with Energy Trust of Oregon to offer our Oregon and Washington customers energy-efficiency programs and services. Learn more about the results of these programs and the benefits to our customers.

View the Energy Trust of Oregon Annual Report at:

nwnatural.com/residential



NW Natural HOLDINGS™

220 NW SECOND AVENUE
PORTLAND, OREGON 97209
NWNATURALHOLDINGS.COM
NYSE: NWN

»OUR CORE VALUES

- Integrity
- Safety
- Caring
- Service Ethic
- Environmental Stewardship

