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June 11, 2018

**VIA ELECTRONIC FILING**

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

**Re: UG 344: Errata to Exhibit NW Natural/2201, Speer/1**

Northwest Natural Gas Company, dba NW Natural (“NW Natural” or “Company”), files herewith an Errata to NW Natural/2201, Speer/1 (Exhibit 2201).

When Exhibit 2201 was updated for the Company’s reply testimony, rows 10b and 10c were added to the Excel worksheet. Row 18 allocates the functionalized revenue requirement for “System Core Main Costs” based on the total costs from the above work paper on rows 10 and 13. The addition of rows 10b and 10c were not updated in the Excel workbook for row 18, and therefore, the allocation of system core main costs were not allocated correctly to each rate schedule. This errata includes an update to the mathematical function in the Excel workbook for row 18, which in turn impacts rows 25A and 26. The change is consistent with the Company’s adoption of Staff’s changes for the LRIC found in Mr. Compton’s LRIC (Exhibit Staff/1202, Compton/Page 3 of 3).

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

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Public Utility Commission of Oregon  
UG 344 Errata to Exhibit 2201  
June 11, 2018; Page 2

Please call me if you have questions.

Sincerely,

NW NATURAL

*/s/ Mark R. Thompson*

Mark R. Thompson  
Manager, Rates & Regulatory Affairs

enclosures

**NW Natural**  
**Oregon Jurisdictional Rate Case**  
**Test Year Twelve Months Ended October 31, 2019**  
**Long-Run Incremental Cost Study**  
**Summary of Results**

Line No.	CUSTOMER CLASS SERVICE TYPE	Residential	Commercial	Industrial	Commercial	Commercial	Commercial	Industrial	Industrial	Commercial	Industrial	Commercial	Industrial	Transportation	Transportation	Transportation	Transportation	Special
		Sales Firm 02	Sales Firm 03CSF	Sales Firm 03ISF	Sales Firm 27CSF	Sales Firm 31CSF	Transportation Firm 31CTF	Sales Firm 31ISF	Transportation Firm 31ITF	Sales Firm 32 CSF	Sales Firm 32ISF	Transportation Firm 32TF	Sales Interruptible 32CSI	Sales Interruptible 32ISI	Transportation Interruptible 32TI	Transportation 33T	Special Contracts	
	STATISTICS	Totals																
1	2019 ANNUAL THERM DELIVERIES	1,073,764,878	385,050,429	166,461,516	4,874,416	1,197,618	25,390,021	3,496,586	14,010,541	363,568	39,092,810	13,823,132	92,722,465	23,733,673	27,416,484	196,967,402	-	79,164,217
2	2019 CUSTOMERS	673,269	610,273	58,752	355	1,962	740	74	217	5	433	62	178	58	68	85	-	7
3	AVERAGE ANNUAL THERM DELIVERIES PER CUSTOMER	631	2,833	13,731	610	34,311	47,251	64,565	72,714	90,284	222,954	520,913	409,201	403,184	2,317,264	-	11,309,174	
<b>3a</b>	<b>ESTIMATED DESIGN DAY LOAD FACTOR</b>	<b>27%</b>	<b>20%</b>	<b>37%</b>	<b>27%</b>	<b>34%</b>	<b>28%</b>	<b>48%</b>	<b>61%</b>	<b>33%</b>	<b>37%</b>	<b>47%</b>	<b>26%</b>	<b>21%</b>	<b>35%</b>	<b>61%</b>	<b>35%</b>	
<b>3b</b>	<b>Average Firm Daily Deliveries</b>	<b>2,045,159</b>	<b>1,054,933</b>	<b>456,059</b>	<b>13,355</b>	<b>3,281</b>	<b>69,562</b>	<b>9,580</b>	<b>38,385</b>	<b>996</b>	<b>107,104</b>	<b>37,872</b>	<b>254,034</b>	-	-	-	-	<b>216,888</b>
<b>3c</b>	<b>Peak Firm Day Deliveries</b>	<b>7,521,024</b>	<b>3,867,055</b>	<b>2,321,162</b>	<b>36,017</b>	<b>12,028</b>	<b>207,093</b>	<b>34,285</b>	<b>79,790</b>	<b>1,628</b>	<b>322,952</b>	<b>102,298</b>	<b>536,716</b>	-	-	-	-	<b>621,093</b>
<b>3d</b>	<b>System Firm Load Factor</b>	<b>27%</b>																
4	Demand Charges	\$76,015,833	\$44,619,642	\$19,289,561	\$564,846	\$138,779	\$2,942,198	\$0	\$1,623,544	\$0	\$4,530,076	\$1,601,827	\$0	\$327,287	\$378,073	\$0	\$0	\$0
5	Cost of Gas	\$198,888,064	\$109,238,807	\$47,225,131	\$1,382,872	\$339,765	\$7,203,149	\$0	\$3,974,789	\$0	\$11,090,630	\$3,921,623	\$0	\$6,733,242	\$7,778,056	\$0	\$0	\$0
6	Total Cost of Gas	\$274,903,897	\$153,858,449	\$66,514,692	\$1,947,718	\$478,544	\$10,145,347	\$0	\$5,598,333	\$0	\$15,620,706	\$5,523,450	\$0	\$7,060,529	\$8,156,129	\$0	\$0	\$0
7	Account Services (Meter Reading, Billing, etc.)	\$26,500,696	\$23,676,365	\$2,361,734	\$14,270	\$76,118	\$143,459	\$14,397	\$42,068	\$973	\$83,943	\$12,020	\$34,234	\$11,244	\$13,334	\$16,537	\$0	\$1,362
Customer Capital Investment Costs																		
8	Meter & Regulators	\$31,271,274	\$23,199,887	\$6,259,399	\$156,723	\$78,040	\$398,513	\$39,725	\$174,291	\$3,648	\$415,271	\$85,920	\$201,874	\$83,708	\$34,530	\$139,745	\$0	\$11,508
9	Services	\$234,118,449	\$213,913,778	\$18,100,185	\$260,111	\$687,723	\$417,002	\$40,236	\$125,210	\$2,981	\$266,931	\$34,696	\$118,399	\$45,969	\$40,826	\$64,401	\$0	\$5,304
10	Main Extensions	\$315,808,952	\$218,871,639	\$90,254,775	\$545,348	\$703,662	\$1,136,782	\$113,678	\$1,209,835	\$27,876	\$665,171	\$345,667	\$992,400	\$89,099	\$379,119	\$473,899	\$0	\$39,027
<b>10a</b>	<b>System Mains Replacement Rev. Req.</b>	<b>\$245,000,000</b>																
<b>10b</b>	<b>System Mains -- Annual Through-Put Allocated</b>	\$66,621,780.65	\$25,792,005	\$11,150,166	\$326,505	\$80,221	\$1,700,711	\$234,213	\$938,474	\$24,353	\$2,618,571	\$925,921	\$6,210,870	\$1,589,763	\$1,836,451	\$13,193,556	\$0	\$0
<b>10c</b>	<b>System Mains -- Firm Demand Allocated</b>	\$178,378,219	\$91,716,029	\$55,051,637	\$854,236	\$285,263	\$4,911,685	\$813,157	\$1,892,393	\$38,602	\$7,659,543	\$2,426,237	\$12,729,438	\$0	\$0	\$0	\$0	\$0
11	Storage Costs	\$2,166,814	\$1,110,217	\$666,276	\$10,340	\$3,451	\$59,541	\$0	\$22,906	\$0	\$92,711	\$29,367	\$0	\$70,795	\$101,301	\$0	\$0	\$0
12	Total Customer Capital Investment Costs	\$1,073,365,488	\$574,603,554	\$181,482,438	\$2,153,264	\$1,838,360	\$8,624,144	\$1,241,010	\$4,363,110	\$97,460	\$11,718,198	\$3,847,808	\$20,252,981	\$1,879,335	\$2,392,226	\$13,871,600	\$0	\$55,839
13	Total System Reinforcement Cost	\$3,759,945	\$1,901,185	\$1,140,999	\$17,709	\$5,909	\$101,808	\$16,856	\$39,226	\$800	\$158,766	\$50,299	\$263,830	\$0	\$0	\$0	\$0	\$62,558
14	Long Run Incremental Distribution Cost	\$1,378,530,027	\$754,039,553	\$251,499,862	\$4,132,960	\$2,398,932	\$19,014,758	\$1,272,263	\$10,042,737	\$99,233	\$27,581,613	\$9,433,577	\$20,551,045	\$8,951,108	\$10,561,689	\$13,888,137	\$0	\$119,759
Proposed Cost by Functional Classification																		
15	Cost of Gas Commodity	\$277,606,225	\$155,370,890	\$67,168,537	\$1,966,864	\$483,248	\$10,245,077	\$0	\$5,653,365	\$0	\$15,774,259	\$5,577,746	\$0	\$7,129,935	\$8,236,304	\$0	\$0	\$0
16	Account Services (Meter Reading, Billing, etc.) Costs	\$45,474,142	\$40,627,702	\$4,052,642	\$24,487	\$130,616	\$246,170	\$24,705	\$72,188	\$1,669	\$144,043	\$20,625	\$58,743	\$19,294	\$22,881	\$28,377	\$0	\$48,819
17	Meters & Services Costs	\$66,706,083	\$59,598,856	\$6,122,816	\$104,772	\$192,476	\$204,981	\$20,098	\$75,280	\$1,666	\$171,472	\$30,317	\$80,501	\$32,595	\$18,941	\$51,312	\$0	\$85,882
18	System Core Main Costs	\$253,127,463	\$151,670,019	\$70,659,710	\$781,841	\$482,007	\$3,520,031	\$528,120	\$1,829,258	\$41,083	\$4,977,664	\$1,680,492	\$9,055,225	\$752,727	\$993,362	\$6,127,876	\$0	\$1,654,166
19	Storage Costs	\$19,775,660	\$10,132,514	\$6,080,841	\$94,367	\$31,491	\$542,586	\$0	\$209,050	\$0	\$846,137	\$268,022	\$0	\$646,120	\$924,531	\$0	\$0	\$0
20	Proposed Cost	\$662,689,573	\$417,399,981	\$154,084,546	\$2,972,332	\$1,319,838	\$14,758,845	\$572,923	\$7,839,140	\$44,419	\$21,913,575	\$7,577,201	\$9,194,470	\$8,580,671	\$10,196,020	\$6,207,565	\$0	\$1,788,868
<b>21</b>	<b>LRIC Based Target Margin</b>	<b>\$385,083,348</b>	<b>\$262,029,091</b>	<b>\$86,916,009</b>	<b>\$1,005,468</b>	<b>\$836,590</b>	<b>\$4,513,768</b>	<b>\$572,923</b>	<b>\$2,185,775</b>	<b>\$44,419</b>	<b>\$6,139,316</b>	<b>\$1,999,455</b>	<b>\$9,194,470</b>	<b>\$1,450,736</b>	<b>\$1,959,716</b>	<b>\$6,207,565</b>	<b>\$0</b>	<b>\$1,788,868</b>
22	Revenue at Current Rates	\$626,662,560	\$387,770,097	\$137,975,522	\$3,740,132	\$1,038,854	\$18,521,031	\$1,113,636	\$8,813,710	\$89,844	\$24,565,050	\$7,608,655	\$7,460,021	\$9,271,906	\$10,710,650	\$6,194,584	\$0	\$1,788,868
<b>23</b>	<b>Margin Revenue at Current Rates</b>	<b>\$349,809,051</b>	<b>\$232,672,334</b>	<b>\$71,019,860</b>	<b>\$1,780,460</b>	<b>\$556,990</b>	<b>\$8,316,491</b>	<b>\$1,113,636</b>	<b>\$3,187,208</b>	<b>\$89,844</b>	<b>\$8,865,834</b>	<b>\$2,060,888</b>	<b>\$7,460,021</b>	<b>\$2,181,744</b>	<b>\$2,520,290</b>	<b>\$6,194,584</b>	<b>\$0</b>	<b>\$1,788,868</b>
24	Current Revenue to Proposed Cost (Includes Cost of Gas)	0.95	0.93	0.90	1.26	0.79	1.25	1.94	1.12	2.02	1.12	1.00	0.81	1.08	1.05	1.00	-	-
25	Current Margin Revenue to LRIC Based Target Margin	0.91	0.89	0.82	1.77	0.67	1.84	1.94	1.46	2.02	1.44	1.03	0.81	1.50	1.29	1.00	-	-
25A	Relative Margin to Cost at Present Rates	1.00	0.98	0.90	1.95	0.73	2.03	2.14	1.61	2.23	1.59	1.13	0.89	1.66	1.42	1.10	-	-
26	Component LRIC Target Increase by Schedule	\$37,787,833	\$29,629,884	\$16,109,024	(\$767,800)	\$280,984	(\$3,762,186)	(\$540,713)	(\$974,570)	(\$45,425)	(\$2,651,475)	(\$31,454)	\$1,734,449	(\$691,235)	(\$514,630)	\$12,980	\$0	\$0
27	Target Increase as Percent of Total Present Revenue	6.03%	7.64%	11.68%	-20.53%	27.05%	-20.31%	-48.55%	-11.06%	-50.56%	-10.79%	-0.41%	23.25%	-7.46%	-4.80%	0.21%	0.00%	0.00%
27A	Target Increase as Percent of Present Margin Revenue	10.80%	12.73%	22.68%	-20.53%	50.45%	-45.24%	-48.55%	-30.58%	-50.56%	-29.91%	-1.53%	23.25%	-31.68%	-20.42%	0.21%	0.00%	0.00%