

EXHIBIT A

BEFORE THE
WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

NW NATURAL
SUPPORTING MATERIALS

Combined Effects

NWN WUTC Advice No. 18-07 /
UG-180786 September 13, 2018

NW NATURAL

EXHIBIT A

Supporting Materials

Combined Effects

NWN WUTC ADVICE NO. 18-07 / UG-180786

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NW Natural
Rates & Regulatory Affairs
2018-2019 PGA Filing - Washington: September Filing
PGA Effects on Average Bill by Rate Schedule
Calculation of Effect on Customer Average Bill by Rate Schedule [1]

1	Washington		Normal	Current	Proposed	Proposed	Proposed	Proposed	Proposed		
2	PGA Normalized		Therms	11/1/2017	11/1/2017	11/1/2018	11/1/2018	11/1/2018	11/1/2018		
3	Volumes page,	Therms in	Monthly	Minimum	Current	Total	Total	Total	Total		
4	Column D	Block	Average use	Monthly	Billing	Average Bill	Rates	Average Bill	% Bill Change		
5				Charge	Rates	F=D+(C * E)		T=D+(C * S)	U=(T - F)/F		
6	Schedule	Block	A	B	C	D	E	F	S	T	U
7	1R		204,474	N/A	19.0	\$3.47	\$1.09344	\$24.25	\$1.02918	\$23.02	-5.1%
8	1C		38,632	N/A	85.0	\$3.47	\$1.08423	\$95.63	\$1.01873	\$90.06	-5.8%
9	2R		51,583,578	N/A	57.0	\$7.00	\$0.80224	\$52.73	\$0.73546	\$48.92	-7.2%
10	3 CFS		17,687,989	N/A	244.0	\$15.00	\$0.80187	\$210.66	\$0.73534	\$194.42	-7.7%
11	3 IFS		479,219	N/A	1,426.0	\$15.00	\$0.77510	\$1,120.29	\$0.70458	\$1,019.73	-9.0%
12	27		506,107	N/A	57.0	\$6.00	\$0.63079	\$41.96	\$0.56222	\$38.05	-9.3%
13	41C Firm Sales	Block 1	1,945,641	2,000	3,747.0	\$250.00	\$0.55691		\$0.49926		
14		Block 2	1,921,286	all additional			\$0.51811		\$0.46018		
15		TOTAL						\$2,268.96		\$2,052.45	-9.5%
16	41C Interr Sales	Block 1	0	2,000	0.0	\$250.00	\$0.57864		\$0.51519		
17		Block 2	0	all additional			\$0.54001		\$0.47626		
18		TOTAL						\$250.00		\$250.00	0.0%
19	41 Firm Trans	Block 1	374,507	2,000	4,706.0	\$500.00	\$0.30077		\$0.30019		
20		Block 2	585,464	all additional			\$0.26500		\$0.26449		
21		TOTAL						\$1,818.63		\$1,816.09	-0.1%
22	41I Firm Sales	Block 1	319,582	2,000	3,808.0	\$250.00	\$0.53626		\$0.47592		
23		Block 2	365,920	all additional			\$0.49991		\$0.43960		
24		TOTAL						\$2,226.36		\$1,996.64	-10.3%
25	41I Interr Sales	Block 1	0	2,000	0.0	\$250.00	\$0.55922		\$0.49300		
26		Block 2	0	all additional			\$0.52290		\$0.45671		
27		TOTAL						\$250.00		\$250.00	0.0%
28	42C Firm Sales	Block 1	572,162	10,000	15,829.0	\$1,300.00	\$0.36597		\$0.30434		
29		Block 2	452,310	20,000			\$0.35176		\$0.29030		
30		Block 3	113,398	20,000			\$0.32347		\$0.26237		
31		Block 4	1,826	100,000			\$0.30485		\$0.24398		
32		Block 5	0	600,000			\$0.28003		\$0.21945		
33		Block 6	0	all additional			\$0.24900		\$0.18881		
34		TOTAL						\$7,010.11		\$6,035.56	-13.9%
35	42I Firm Sales	Block 1	1,138,365	10,000	13,507.0	\$1,300.00	\$0.35161		\$0.29140		
36		Block 2	725,589	20,000			\$0.33889		\$0.27872		
37		Block 3	81,079	20,000			\$0.31360		\$0.25347		
38		Block 4	0	100,000			\$0.29696		\$0.23686		
39		Block 5	0	600,000			\$0.27478		\$0.21473		
40		Block 6	0	all additional			\$0.24703		\$0.18704		
41		TOTAL						\$6,004.59		\$5,191.47	-13.5%
42	42 Firm Trans	Block 1	1,313,594	10,000	41,245.0	\$1,550.00	\$0.11818		\$0.11795		
43		Block 2	1,609,433	20,000			\$0.10579		\$0.10558		
44		Block 3	1,138,813	20,000			\$0.08112		\$0.08096		
45		Block 4	1,522,236	100,000			\$0.06490		\$0.06477		
46		Block 5	355,242	600,000			\$0.04327		\$0.04318		
47		Block 6	0	all additional			\$0.01622		\$0.01619		
48		TOTAL						\$5,759.79		\$5,751.50	-0.1%
49	42C Interr Sales	Block 1	250,151	10,000	28,810.0	\$1,300.00	\$0.38133		\$0.31898		
50		Block 2	486,821	20,000			\$0.36796		\$0.30523		
51		Block 3	246,036	20,000			\$0.34134		\$0.27787		
52		Block 4	54,140	100,000			\$0.32384		\$0.25988		
53		Block 5	0	600,000			\$0.30050		\$0.23588		
54		Block 6	0	all additional			\$0.27134		\$0.20590		
55		TOTAL						\$12,034.63		\$10,231.18	-15.0%
56	42I Interr Sales	Block 1	179,269	10,000	13,310.0	\$1,300.00	\$0.37670		\$0.30887		
57		Block 2	140,180	20,000			\$0.36381		\$0.29618		
58		Block 3	0	20,000			\$0.33817		\$0.27094		
59		Block 4	0	100,000			\$0.32130		\$0.25433		
60		Block 5	0	600,000			\$0.29879		\$0.23218		
61		Block 6	0	all additional			\$0.27069		\$0.20452		
62		TOTAL						\$6,271.21		\$5,369.06	-14.4%
63	42 Inter Trans	Block 1	906,535	10,000	81,264.0	\$1,550.00	\$0.11818		\$0.11797		
64		Block 2	1,644,618	20,000			\$0.10579		\$0.10560		
65		Block 3	1,375,643	20,000			\$0.08112		\$0.08098		
66		Block 4	4,240,259	100,000			\$0.06490		\$0.06479		
67		Block 5	2,559,794	600,000			\$0.04327		\$0.04319		
68		Block 6	0	all additional			\$0.01622		\$0.01619		
69		TOTAL						\$8,499.03		\$8,486.89	-0.1%
70	43 Firm Trans		0	N/A	0.0	\$38,000.00	\$0.00499	\$38,000.00	\$0.00498	\$38,000.00	N/A
71	43 Interr Trans		0	N/A	0.0	\$38,000.00	\$0.00499	\$38,000.00	\$0.00498	\$38,000.00	N/A
72	Intentionally blank										

[1] Rate Schedule 41 and 42 customers may choose demand charges at a volumetric rate or based on MDDV. For convenience of presentation, demand charges are not included in the calculations for those schedules.

[2] Proposed rates include the effect of removing the current Schedule 215 adjustment and applying the proposed Schedule 215 adjustment. The rate shown is for illustrative purposes only and assumes no other changes to rates occur November 1.

Sources:

Direct Inputs	per Tariff	per Tariff
Rates in summary	Column A	

NW Natural
Rates & Regulatory Affairs
2018-2019 PGA Filing - Washington: September Filing
Calculation of Proposed Rates - SUMMARY

		11/1/2017	Net change	Net change	Proposed	Net change	Proposed
		Billing	WACOG	Demand [1]	Rates	Temporary	11/1/2018
		Rates			PGA Only [1]	Increments	Billing
					D=A+B+C		Rates [1]
							G=D+E+F
Schedule	Block	A	B	C	D	E	G
1R		1.09344	(0.04682)	(0.01028)	1.03634	(0.00716)	1.02918
1C		1.08423	(0.04682)	(0.01028)	1.02713	(0.00840)	1.01873
2R		0.80224	(0.04682)	(0.01028)	0.74514	(0.00968)	0.73546
3 CFS		0.80187	(0.04682)	(0.01028)	0.74477	(0.00943)	0.73534
3 IFS		0.77510	(0.04682)	(0.01028)	0.71800	(0.01342)	0.70458
27		0.63079	(0.04682)	(0.01028)	0.57369	(0.01147)	0.56222
41C Firm Sales	Block 1	0.55691	(0.04682)	0.00000	0.51009	(0.01083)	0.49926
	Block 2	0.51811	(0.04682)	0.00000	0.47129	(0.01111)	0.46018
41C Interr Sales	Block 1	0.57864	(0.04682)	0.00000	0.53182	(0.01663)	0.51519
	Block 2	0.54001	(0.04682)	0.00000	0.49319	(0.01693)	0.47626
41 Firm Trans	Block 1	0.30077	0.00000	0.00000	0.30077	(0.00058)	0.30019
	Block 2	0.26500	0.00000	0.00000	0.26500	(0.00051)	0.26449
41I Firm Sales	Block 1	0.53626	(0.04682)	0.00000	0.48944	(0.01352)	0.47592
	Block 2	0.49991	(0.04682)	0.00000	0.45309	(0.01349)	0.43960
41I Interr Sales	Block 1	0.55922	(0.04682)	0.00000	0.51240	(0.01940)	0.49300
	Block 2	0.52290	(0.04682)	0.00000	0.47608	(0.01937)	0.45671
42C Firm Sales	Block 1	0.36597	(0.04682)	0.00000	0.31915	(0.01481)	0.30434
	Block 2	0.35176	(0.04682)	0.00000	0.30494	(0.01464)	0.29030
	Block 3	0.32347	(0.04682)	0.00000	0.27665	(0.01428)	0.26237
	Block 4	0.30485	(0.04682)	0.00000	0.25803	(0.01405)	0.24398
	Block 5	0.28003	(0.04682)	0.00000	0.23321	(0.01376)	0.21945
	Block 6	0.24900	(0.04682)	0.00000	0.20218	(0.01337)	0.18881
42I Firm Sales	Block 1	0.35161	(0.04682)	0.00000	0.30479	(0.01339)	0.29140
	Block 2	0.33889	(0.04682)	0.00000	0.29207	(0.01335)	0.27872
	Block 3	0.31360	(0.04682)	0.00000	0.26678	(0.01331)	0.25347
	Block 4	0.29696	(0.04682)	0.00000	0.25014	(0.01328)	0.23686
	Block 5	0.27478	(0.04682)	0.00000	0.22796	(0.01323)	0.21473
	Block 6	0.24703	(0.04682)	0.00000	0.20021	(0.01317)	0.18704
42 Firm Trans	Block 1	0.11818	0.00000	0.00000	0.11818	(0.00023)	0.11795
	Block 2	0.10579	0.00000	0.00000	0.10579	(0.00021)	0.10558
	Block 3	0.08112	0.00000	0.00000	0.08112	(0.00016)	0.08096
	Block 4	0.06490	0.00000	0.00000	0.06490	(0.00013)	0.06477
	Block 5	0.04327	0.00000	0.00000	0.04327	(0.00009)	0.04318
	Block 6	0.01622	0.00000	0.00000	0.01622	(0.00003)	0.01619
42C Interr Sales	Block 1	0.38133	(0.04682)	0.00000	0.33451	(0.01553)	0.31898
	Block 2	0.36796	(0.04682)	0.00000	0.32114	(0.01591)	0.30523
	Block 3	0.34134	(0.04682)	0.00000	0.29452	(0.01665)	0.27787
	Block 4	0.32384	(0.04682)	0.00000	0.27702	(0.01714)	0.25988
	Block 5	0.30050	(0.04682)	0.00000	0.25368	(0.01780)	0.23588
	Block 6	0.27134	(0.04682)	0.00000	0.22452	(0.01862)	0.20590
42I Interr Sales	Block 1	0.37670	(0.04682)	0.00000	0.32988	(0.02101)	0.30887
	Block 2	0.36381	(0.04682)	0.00000	0.31699	(0.02081)	0.29618
	Block 3	0.33817	(0.04682)	0.00000	0.29135	(0.02041)	0.27094
	Block 4	0.32130	(0.04682)	0.00000	0.27448	(0.02015)	0.25433
	Block 5	0.29879	(0.04682)	0.00000	0.25197	(0.01979)	0.23218
	Block 6	0.27069	(0.04682)	0.00000	0.22387	(0.01935)	0.20452
42 Inter Trans	Block 1	0.11818	0.00000	0.00000	0.11818	(0.00021)	0.11797
	Block 2	0.10579	0.00000	0.00000	0.10579	(0.00019)	0.10560
	Block 3	0.08112	0.00000	0.00000	0.08112	(0.00014)	0.08098
	Block 4	0.06490	0.00000	0.00000	0.06490	(0.00011)	0.06479
	Block 5	0.04327	0.00000	0.00000	0.04327	(0.00008)	0.04319
	Block 6	0.01622	0.00000	0.00000	0.01622	(0.00003)	0.01619
43 Firm Trans		0.00499	0.00000	0.00000	0.00499	(0.00001)	0.00498
43 Interr Trans		0.00499	0.00000	0.00000	0.00499	(0.00001)	0.00498

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Sources:

Direct Inputs	17-18 PGA
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Rates in detail	Column F - B	Column G+H-C-D	Column K - J	Column N
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[1] Rate Schedule 41 and 42 customers may choose demand charges at a volumetric rate or based on MDDV.

**NW Natural
 Rates & Regulatory Affairs
 2018-19 Combined Effects - Washington: September Filing
 Tariff Advice 18-07: Combined Effects on Revenue**

	<u>Amount</u>	<u>Reference</u>
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	<u>Purchased Gas Cost Adjustment (PGA)</u>	
	Gas Cost Change	NWN 2018-19 PGA gas cost file September filing.xls
	Capacity Cost Change	NWN 2018-19 PGA gas cost file September filing.xls
	Total PGA Change	
	<u>Temporary Rate Adjustments</u>	
	Proposed Temporary Increments	NWN 2018-19 Washington PGA rate development file September.xlsx
	Removal of Current Temporary Increments	NWN 2017-18 Washington PGA rate development file September.xlsx
	Total Net Temporary Rate Adjustment	
	<u>Permanent Rate Adjustments</u>	
	N/A	N/A - No Permanent Rate Adj. in 2018-19
	TOTAL OF ALL COMPONENTS OF ALL RATE CHANGES	
	2017 Washington CBR Normalized Total Revenues	\$69,186,477
	Effect of this filing, as a percentage change	-6.56%

PRESS RELEASE FOR WASHINGTON

Media Contact:

Melissa Moore, melissa.moore@nwnatural.com, 503-818-9845 (pager)

For Immediate Release

September 14, 2018

Lower Natural Gas Rates Expected for Washington Customers

Price of natural gas falls for fourth consecutive year

PORTLAND, Ore. — NW Natural (NYSE:NWN) has filed its Purchased Gas Adjustment (PGA) request for a rate reduction with the Washington Utilities and Transportation Commission (WUTC) for its customers in Washington.

If approved, customers can expect to see lower rates on monthly bills starting November 1:

- Rates for residential customers in Washington will be about 7.2 percent less. A typical residential customer using an average of 57 therms per month will see a monthly savings of about \$3.81.
- Rates for commercial customers in Washington will be about 7.7 percent less. A typical commercial customer using an average of 244 therms per month will see a monthly savings of about \$16.24.

“The cost of gas continues to drop nationally, and we’re pleased to provide our customers with a product that is such a good value,” said David H. Anderson, NW Natural president and CEO. “In fact, our Washington customers are paying less for gas than they did 15 years ago.”

The PGA filing for a rate reduction takes into account a lower cost of natural gas, which is primarily the result of an abundant supply projected for the year ahead. The rate changes also include other year-to-year adjustments and costs approved by regulators.

This year’s filing marks the fourth year in a row for lower gas prices for NW Natural’s customers in Washington.

NW Natural’s filings are requests, subject to public review and a decision by the WUTC. Customers may submit comments on the proposed changes at www.utc.wa.gov “Submit a Comment,” comments@utc.wa.gov, 1-888-333-9882, or WUTC, PO Box 47250, Olympia, WA 98504-7250. Customers can also request more information, review the filing, and find out about open meetings.

For more information, visit the Rates and Regulations section of nwnatural.com or call 503-226-4211 and ask for the Rates and Regulatory Department.

About NW Natural

NW Natural (NYSE:NWN) is headquartered in Portland, Ore., and provides natural gas service to more than 740,000 residential, commercial and industrial customers in Oregon and Southwest Washington. It is the largest independent natural gas utility in the Pacific Northwest. Additional information is available at www.nwnatural.com.

COMFORT ZONE FOR WASHINGTON

Lower Rates for Four Years Running

On September 13, 2018, NW Natural filed a rate reduction request with the Washington Utilities and Transportation Commission (WUTC).

If approved, customers will see lower rates on monthly bills starting on November 1, 2018:

- Rates for residential customers will be about 7.2 percent less, which equals a monthly savings of about \$3.81 for the average home using around 57 therms a month.
- Rates for commercial customers will be about 7.7 percent less, which equals a monthly savings of about \$16.24 for the average business using around 244 therms a month.

The annual Purchased Gas Adjustment trues up differences between estimated and actual natural gas costs from the previous year. The rate changes also include other year-to-year adjustments and costs approved by regulators.

This year's filing marks the fourth year in a row for lower gas prices for NW Natural's Washington customers.

Continued on [back page]...

Call-out box for front page

"The cost of gas continues to drop nationally, and we're pleased to provide our customers with a product that is such a good value," said David H. Anderson, NW Natural president and CEO. "In fact, our Washington customers are paying less for gas than they did 15 years ago."

Continued from [front page]...

Reason for Lower Rates

The combined effects of the following three filings contribute to a drop in rates for Washington customers:

1. **Purchased Gas Adjustment**
 A 7.6 percent or \$4.01 reduction on the average monthly residential bill, and a 8.1 percent or \$17.14 reduction on the average commercial bill. The filing trues up the differences between the estimated and actual cost of natural gas, and it establishes the customer costs for natural gas from Nov. 1, 2018 – Oct. 31, 2019.
2. **Energy Efficiency Programs**
 A 0.4 percent or \$0.22 increase on the average monthly residential bill, and a 0.5 percent or \$0.98 increase on the average monthly commercial bill for energy efficiency programs that support cost-effective natural gas conservation.
3. **Low-Income Assistance**
 A 0.01 percent or \$0.01 increase on the average monthly residential bill, and a 0.01 percent or \$0.08 increase on the average monthly commercial bill for programs that help low-income residential customers install energy efficiency improvements and stay warm during the winter.

Combined, the proposed changes for natural gas rates are:

Type of Service	Schedule Number	Percent Change
General Residential Sales Service	1	-5.1%
General Commercial Sales Service	1	-5.8%
Residential Sales Service	2	-7.2%
Commercial Sales Service	3	-7.7%
Industrial Sales Service	3	-9.0%
Residential Heating Dry-Out Service	27	-9.3%
Commercial Firm Sales	41	-9.5%
Non-Residential Firm Transportation	41	-0.1%

Industrial Firm Sales	41	-10.3%
Large Volume Commercial Firm Sales	42	-13.9%
Large Volume Commercial Interruptible Sales	42	-15.0%
Large Volume Industrial Firm Sales	42	-13.5%
Large Volume Industrial Interruptible Sales	42	-14.4%
Large Volume Firm Transportation	42	-0.1%
Large Volume Interruptible Transportation	42	-0.1%

The percentages for Rate Schedule 41 and Rate Schedule 42 do not include the effect of demand costs.

NW Natural's filings are requests, subject to public review and a decision by the WUTC. Customers may comment on the proposed rate changes by clicking "Submit a Comment" at www.utc.wa.gov, emailing comments@utc.wa.gov, calling 1-888-333-9882 (WUTC), or mailing Washington Utilities and Transportation Commission, PO Box 47250, Olympia, WA 98504-7250. Customers can also request more information, review the filing, and find out about open meetings.

For more information, visit the Rates and Regulations section of nwnatural.com, send a letter to NW Natural Rates and Regulatory, 220 NW 2nd Avenue, Portland, OR 97209; call 503-226-4211 and ask for the Rates and Regulatory Department, or email from nwnatural.com/ContactUs/Email.