

EXHIBIT A

BEFORE THE
WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

NW NATURAL
SUPPORTING MATERIALS

Annual Purchased Gas Cost and
Deferred Gas Cost Amortization Adjustments

NWN WUTC Advice No. 20-9 / UG-_____

September 14, 2020

NW NATURAL

EXHIBIT A

Supporting Materials

Annual Purchased Gas Cost and Deferred Gas Cost Amortization Adjustments

NWN WUTC ADVICE NO. 20-9 / UG-_____

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NW Natural
 Rates & Regulatory Affairs
 2020-2021 PGA Filing - Washington: September Filing
 Summary of TEMPORARY Increments

		REMOVE	REMOVE	ADD	ADD	ADD	Total	Net Effect of
		Current	PGA Current	WACOG	Demand	Demand	Proposed PGA	PGA Temps
		Temporaries	Temporaries	Deferral	Deferral FIRM	Deferral INTERR	Temporaries	
		F = C+D+E						G = F-B
Schedule	Block	A	B	C	D	E	F	G
1R		0.05852	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
1C		0.04941	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
2R		0.03824	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
3 CFS		0.03470	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
3 IFS		(0.01335)	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
27		0.02822	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
41C Firm Sales	Block 1	0.02869	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 2	0.02603	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
41C Interr Sales	Block 1	0.04498	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 2	0.04264	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
41 Firm Trans	Block 1	(0.02302)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 2	(0.02028)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
41I Firm Sales	Block 1	(0.01085)	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 2	(0.00880)	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
41I Interr Sales	Block 1	0.00756	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 2	0.00967	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
42C Firm Sales	Block 1	0.01614	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 2	0.01512	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 3	0.01309	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 4	0.01174	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 5	0.00996	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 6	0.00771	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
42I Firm Sales	Block 1	(0.00371)	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 2	(0.00264)	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 3	(0.00055)	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 4	0.00084	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 5	0.00269	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
	Block 6	0.00499	0.00638	0.00678	(0.01609)	0.00000	(0.00931)	(0.01569)
42C Firm Trans	Block 1	(0.00908)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 2	(0.00813)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 3	(0.00623)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 4	(0.00498)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 5	(0.00332)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 6	(0.00125)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
42I Firm Trans	Block 1	(0.00666)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 2	(0.00596)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 3	(0.00457)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 4	(0.00365)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 5	(0.00244)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 6	(0.00091)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
42C Interr Sales	Block 1	0.03374	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 2	0.03287	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 3	0.03110	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 4	0.02995	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 5	0.02841	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 6	0.02649	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
42I Interr Sales	Block 1	0.01542	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 2	0.01647	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 3	0.01853	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 4	0.01989	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 5	0.02170	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
	Block 6	0.02397	0.02533	0.00678	0.00000	(0.00562)	0.00116	(0.02417)
42 Inter Trans	Block 1	(0.00829)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 2	(0.00742)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 3	(0.00569)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 4	(0.00455)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 5	(0.00303)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	Block 6	(0.00114)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
43 Firm Trans		(0.00035)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
43 Interr Trans		(0.00035)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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Sources:						
Direct Inputs	20-21 PGA+EE	20-21 PGA+EE				
Equal ¢ per therm		Column H	Column K	Column N		
Equal % of margin						
Tariff Schedules:						
Schedule #		Sched 201	Sched 201	Sched 201	N/A	N/A

Dollars

NW Natural
 Rates & Regulatory Affairs
 2020-2021 PGA Filing - Washington: September Filing
 Calculation of Increments Allocated on the EQUAL CENT PER THERM BASIS

Washington		WACOG Deferral			Demand Deferral - FIRM			Demand Deferral - INTERRUPTIBLE			
PGA		544,781 Temporary Increment			(1,273,603) Temporary Increment			(6,776) Temporary Increment			
Volumes page,		4.158% add revenue sensitive factor			4.158% add revenue sensitive factor			4.158% add revenue sensitive factor			
Column F		568,416 to all sales schedules			(1,328,857) to all firm sales			(7,070) to all interruptible sales			
Schedule	Block	A	Multiplier B	Volumes C	Increment D	Multiplier E	Volumes F	Increment G	Multiplier H	Volumes I	Increment J
1R		218,577	1.0	218,577	\$0.00678	1.0	218,577	(\$0.01609)	0.0	0	\$0.00000
1C		38,726	1.0	38,726	\$0.00678	1.0	38,726	(\$0.01609)	0.0	0	\$0.00000
2R		55,009,539	1.0	55,009,539	\$0.00678	1.0	55,009,539	(\$0.01609)	0.0	0	\$0.00000
3 CFS		18,385,905	1.0	18,385,905	\$0.00678	1.0	18,385,905	(\$0.01609)	0.0	0	\$0.00000
3 IFS		263,842	1.0	263,842	\$0.00678	1.0	263,842	(\$0.01609)	0.0	0	\$0.00000
27		591,910	1.0	591,910	\$0.00678	1.0	591,910	(\$0.01609)	0.0	0	\$0.00000
41C Firm Sales	Block 1	1,992,236	1.0	1,992,236	\$0.00678	1.0	1,992,236	(\$0.01609)	0.0	0	\$0.00000
	Block 2	2,142,068	1.0	2,142,068	\$0.00678	1.0	2,142,068	(\$0.01609)	0.0	0	\$0.00000
41C Interr Sales	Block 1	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
	Block 2	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
41 Firm Trans	Block 1	169,264	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 2	260,994	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
41I Firm Sales	Block 1	399,967	1.0	399,967	\$0.00678	1.0	399,967	(\$0.01609)	0.0	0	\$0.00000
	Block 2	630,361	1.0	630,361	\$0.00678	1.0	630,361	(\$0.01609)	0.0	0	\$0.00000
41I Interr Sales	Block 1	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
	Block 2	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
42C Firm Sales	Block 1	542,976	1.0	542,976	\$0.00678	1.0	542,976	(\$0.01609)	0.0	0	\$0.00000
	Block 2	474,167	1.0	474,167	\$0.00678	1.0	474,167	(\$0.01609)	0.0	0	\$0.00000
	Block 3	97,891	1.0	97,891	\$0.00678	1.0	97,891	(\$0.01609)	0.0	0	\$0.00000
	Block 4	6,094	1.0	6,094	\$0.00678	1.0	6,094	(\$0.01609)	0.0	0	\$0.00000
	Block 5	0	1.0	0	\$0.00678	1.0	0	(\$0.01609)	0.0	0	\$0.00000
	Block 6	0	1.0	0	\$0.00678	1.0	0	(\$0.01609)	0.0	0	\$0.00000
42I Firm Sales	Block 1	1,086,353	1.0	1,086,353	\$0.00678	1.0	1,086,353	(\$0.01609)	0.0	0	\$0.00000
	Block 2	638,955	1.0	638,955	\$0.00678	1.0	638,955	(\$0.01609)	0.0	0	\$0.00000
	Block 3	68,923	1.0	68,923	\$0.00678	1.0	68,923	(\$0.01609)	0.0	0	\$0.00000
	Block 4	0	1.0	0	\$0.00678	1.0	0	(\$0.01609)	0.0	0	\$0.00000
	Block 5	0	1.0	0	\$0.00678	1.0	0	(\$0.01609)	0.0	0	\$0.00000
	Block 6	0	1.0	0	\$0.00678	1.0	0	(\$0.01609)	0.0	0	\$0.00000
42C Firm Trans	Block 1	479,847	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 2	792,463	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 3	542,281	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 4	537,117	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 5	0	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 6	0	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
42I Firm Trans	Block 1	901,597	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 2	1,041,722	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 3	957,215	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 4	2,490,044	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 5	1,426,372	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 6	0	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
42C Interr Sales	Block 1	239,999	1.0	239,999	\$0.00678	0.0	0	\$0.00000	1.0	239,999	(\$0.00562)
	Block 2	454,151	1.0	454,151	\$0.00678	0.0	0	\$0.00000	1.0	454,151	(\$0.00562)
	Block 3	230,285	1.0	230,285	\$0.00678	0.0	0	\$0.00000	1.0	230,285	(\$0.00562)
	Block 4	26,942	1.0	26,942	\$0.00678	0.0	0	\$0.00000	1.0	26,942	(\$0.00562)
	Block 5	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
	Block 6	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
42I Interr Sales	Block 1	160,966	1.0	160,966	\$0.00678	0.0	0	\$0.00000	1.0	160,966	(\$0.00562)
	Block 2	145,741	1.0	145,741	\$0.00678	0.0	0	\$0.00000	1.0	145,741	(\$0.00562)
	Block 3	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
	Block 4	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
	Block 5	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
	Block 6	0	1.0	0	\$0.00678	0.0	0	\$0.00000	1.0	0	(\$0.00562)
42 Inter Trans	Block 1	861,932	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 2	1,453,508	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 3	976,710	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 4	3,078,834	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 5	1,269,411	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
	Block 6	0	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
43 Firm Trans		0	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
43 Interr Trans		0	0.0	0	\$0.00000	0.0	0	\$0.00000	0.0	0	\$0.00000
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Totals		101,085,884		83,846,573	\$0.00678		82,588,489	(\$0.01609)		1,258,084	(\$0.00562)
Sources for line 2 above:											
Inputs page			Line 31			Line 33			Line 35		
Tariff Schedules:											
Schedule #			Sched 201			Sched 201			Sched 201		

**NW Natural
 Rates & Regulatory Affairs
 2020-2021 PGA Filing - Washington: September Filing
 Summary of Deferred Accounts**

Account A	Balance 8/31/2020 B	Sep-Oct Estimated Activity C	Sep-Oct Interest D	Estimated Balance 10/31/2020 E	Estimated Interest During Amortization F	Total Estimated Amount for (Refund) or Collection G	Amounts Excluded from PGA Filing H	Amounts Included in PGA Filing I
				E = sum B thru D	3.43%	G = E + F Excl. Rev Sens		
Gas Cost Deferrals and Amortizations								
191420 WACOG - ACCRUAL WA	270,334	0	1,548	271,881				
191421 AMORT OF WACOG - WA	524,213	(263,672)	2,370	262,911				
	794,547	(263,672)	3,918	534,793	9,988	544,781		544,781
191430 DEMAND ACCRUAL - WA	(363)	0	(2)	(365)				
191431 AMORT OF DEMAND WA	(727,458)	212,723	(3,657)	(518,392)				
254302 MARGIN SHARING - WA	(738,148)	0	0	(738,148)				
	(1,465,969)	212,723	(3,659)	(1,256,905)	(23,474)	(1,280,379)		(1,280,379)

13 Notes

14 Please refer to NWN workpapers or electronic file "NWN 2020-21 Washington PGA rate development file September filing.xls" for application of revenue sensitive effect and calculation of rate increments.

Company: Northwest Natural Gas Company
 State: Washington
 Description: Washington WACOG Deferral
 Account Number: 191420
 Program under Schedule P
 Temp Increment under Schedule 203

1 Debit (Credit)
 2
 3

4	Month/Year	Note	Accumulation	Transfers	Interest Rate	Interest	Activity	Balance
5	(a)	(b)	(c)	(d)	(e1)	(e2)	(f)	(g)
6								
166	Nov-19	1	484,578.31	(2,729,027.78)	5.42%	(688.02)	(2,245,137.49)	89,271.46
167	Dec-19		728,482.49		5.42%	2,048.37	730,530.86	819,802.32
168	Jan-20		338,852.23		4.96%	4,088.81	342,941.04	1,162,743.36
169	Feb-20		(20,154.04)		4.96%	4,764.35	(15,389.69)	1,147,353.67
170	Mar-20		(188,263.82)		4.96%	4,353.32	(183,910.50)	963,443.17
171	Apr-20		(293,940.54)		4.75%	3,231.87	(290,708.67)	672,734.50
172	May-20		(109,023.62)		4.75%	2,447.13	(106,576.49)	566,158.01
173	Jun-20		(141,885.02)		4.75%	1,960.23	(139,924.79)	426,233.22
174	Jul-20		(99,528.15)		3.43%	1,076.07	(98,452.08)	327,781.14
175	Aug-20		(58,301.16)		3.43%	853.59	(57,447.57)	270,333.57
176	Sep-20				3.43%	772.70	772.70	271,106.27
177	Oct-20				3.43%	774.91	774.91	271,881.18

178
 179 **History truncated for ease of viewing**

180
 181 **Notes**

182 **1** - Transferred authorized balance to account 191421 for amortization.

Company: Northwest Natural Gas Company
 State: Washington
 Description: Washington Amortization of WACOG
 Account Number: 191421
 Program under Schedule P
 Temp Increment under Schedule 203

1 Debit (Credit)

2
 3

4	Month/Year	Note	Amortization	Transfers	Interest Rate	Interest	Activity	Balance
5	(a)	(b)	(c)	(d)	(e1)	(e2)	(f)	(g)
178	Nov-19	new (1)	(107,895.15)	2,729,027.78	5.42%	12,082.45	2,633,215.08	2,719,101.63
179	Dec-19		(392,147.49)		5.42%	11,395.68	(380,751.81)	2,338,349.82
180	Jan-20		(436,907.76)		4.96%	8,762.24	(428,145.52)	1,910,204.30
181	Feb-20		(364,893.65)		4.96%	7,141.40	(357,752.25)	1,552,452.05
182	Mar-20		(353,570.46)		4.96%	5,686.09	(347,884.37)	1,204,567.68
183	Apr-20		(268,926.65)		4.75%	4,235.83	(264,690.82)	939,876.86
184	May-20		(146,897.96)		4.75%	3,429.61	(143,468.35)	796,408.51
185	Jun-20		(114,272.26)		4.75%	2,926.29	(111,345.97)	685,062.54
186	Jul-20		(90,958.15)		3.43%	1,828.14	(89,130.01)	595,932.53
187	Aug-20		(73,317.62)		3.43%	1,598.59	(71,719.03)	524,213.50
188	Sep-20	forecast	(88,704.84)		3.43%	1,371.60	(87,333.24)	436,880.26
189	Oct-20	forecast	(174,967.48)		3.43%	998.69	(173,968.79)	262,911.47

190

191 **History truncated for ease of viewing**

192

193 **Notes**

194 **1** - Transfer in amounts from account 191420 approved for amortization.

Company: Northwest Natural Gas Company
 State: Washington
 Description: Washington Demand Accrual
 Account Number: 191430
 Program under Schedule P
 Temp Increment under Schedule 203

1 Debit (Credit)

2

3

4	Month/Year	Note	Accumulation	Transfers	Interest Rate	Interest	Activity	Balance
5	(a)	(b)	(c)	(d)	(e1)	(e2)	(f)	(g)
6								
7	Beginning Balance							
166	Nov-19	1	(285,392.29)	210,884.72	5.42%	681.73	(73,825.84)	8,921.59
167	Dec-19		(505,627.68)		5.42%	(1,101.58)	(506,729.26)	(497,807.67)
168	Jan-20		(486,852.79)		4.96%	(3,063.77)	(489,916.56)	(987,724.23)
169	Feb-20		(461,891.37)		4.96%	(5,037.17)	(466,928.54)	(1,454,652.77)
170	Mar-20		(291,570.07)		4.96%	(6,615.14)	(298,185.21)	(1,752,837.98)
171	Apr-20		123,859.55		4.75%	(6,693.18)	117,166.37	(1,635,671.60)
172	May-20		346,952.27		4.75%	(5,787.86)	341,164.41	(1,294,507.19)
173	Jun-20		381,568.34		4.75%	(4,368.90)	377,199.44	(917,307.75)
174	Jul-20		451,539.05		3.43%	(1,976.65)	449,562.40	(467,745.35)
175	Aug-20		468,050.75		3.43%	(668.05)	467,382.70	(362.66)
176	Sep-20				3.43%	(1.04)	(1.04)	(363.70)
177	Oct-20				3.43%	(1.04)	(1.04)	(364.74)

178

179 **History truncated for ease of viewing**

180

181 **Notes**

182 **1** - Transferred authorized balance to account 191431 for amortization.

Company: Northwest Natural Gas Company
 State: Washington
 Description: Washington Amortization of Demand
 Account Number: 191431
 Program under Schedule P
 Temp Increment under Schedule 203

1 Debit (Credit)

2
3

4	Month/Year	Note	Amortization	Transfers	Interest Rate	Interest	Activity	Balance
5	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
6								
178	Nov-19	new (1)	86,396.78	(210,884.72)	5.42%	(757.38)	(125,245.32)	(865,620.50)
179	Dec-19		319,269.73		5.42%	(3,188.70)	316,081.03	(549,539.47)
180	Jan-20	(2)	356,057.90	(1,643,319.28)	4.96%	(8,327.96)	(1,295,589.34)	(1,845,128.81)
181	Feb-20		297,070.06		4.96%	(7,012.59)	290,057.47	(1,555,071.34)
182	Mar-20		287,929.29		4.96%	(5,832.57)	282,096.72	(1,272,974.62)
183	Apr-20		218,831.84		4.75%	(4,605.75)	214,226.09	(1,058,748.53)
184	May-20		118,929.06		4.75%	(3,955.50)	114,973.56	(943,774.97)
185	Jun-20		92,318.33		4.75%	(3,553.06)	88,765.27	(855,009.70)
186	Jul-20		73,229.21		3.43%	(2,339.25)	70,889.96	(784,119.74)
187	Aug-20		58,819.31		3.43%	(2,157.21)	56,662.10	(727,457.64)
188	Sep-20	<i>forecast</i>	<i>71,086.92</i>		3.43%	(1,977.72)	69,109.20	(658,348.44)
189	Oct-20	<i>forecast</i>	<i>141,635.93</i>		3.43%	(1,679.36)	139,956.57	(518,391.87)

190

191

192 **History truncated for ease of viewing**

193

194 **Notes**

195 **1** - Transfer in amounts from account 191430 approved for amortization.

196 **2** - Transfer in from account 254302 (storage and optimization revenue sharing).

Company: Northwest Natural Gas Company
 State: Washington
 Description: Washington Storage Sharing
 Account Number: 254302
 Temp Increment under Schedule 220

1	Debit	(Credit)				
2						
3						
4	Month/Year	Note	Accumulation	Transfers	Activity	Balance
5	(a)	(b)	(c)	(d)	(e)	(f)
6						
165	Nov-19		(95,213.93)		(95,213.93)	(1,547,280.36)
166	Dec-19		(96,038.92)		(96,038.92)	(1,643,319.28)
167	Jan-20	(1)	(2,939.66)	1,643,319.28	1,640,379.62	(2,939.66)
168	Feb-20		(37,975.93)		(37,975.93)	(40,915.59)
169	Mar-20		(69,841.07)		(69,841.07)	(110,756.66)
170	Apr-20		(123,285.38)		(123,285.38)	(234,042.04)
171	May-20		(125,564.47)		(125,564.47)	(359,606.51)
172	Jun-20		(123,243.84)		(123,243.84)	(482,850.35)
173	Jul-20		(126,704.18)		(126,704.18)	(609,554.53)
174	Aug-20		(128,593.80)		(128,593.80)	(738,148.33)
175	Sep-20				0.00	(738,148.33)
176	Oct-20				0.00	(738,148.33)

177
 178 **History truncated for ease of viewing**

179
 180 **Notes**

181 **1** - Transfer December balance to account 191431 for amortization.

182

NW Natural
 2020-2021 PGA - SYSTEM: September Filing
 Summary of Total Commodity Cost
 ALL VOLUMES IN THERMS

WASHINGTON COSTS															
1	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
2			November	December	January	February	March	April	May	June	July	August	September	October	TOTAL
3			1	2	3	4	5	6	7	8	9	10	11	12	
4	COSTS														
5	Commodity Cost from Supply		\$ 2,427,726	\$3,058,998	\$2,900,644	\$2,148,416	\$2,343,593	\$1,364,257	\$838,580	\$628,150	\$576,391	\$530,443	\$574,839	\$1,186,386	\$18,578,423
6	tab commodity cost from supply, column cd, lines 93-104 plus gen input line 80; and														
7	tab commodity cost from gas reserve, column q, lines 59-70														
8	Volumetric Pipeline Chgs		\$10,144	\$11,469	\$11,277	\$8,724	\$9,969	\$7,130	\$4,623	\$3,285	\$2,770	\$2,562	\$2,874	\$6,010	\$80,837
9	tab commodity cost from vol pipe, column e, line 78-89														
10	Commodity Cost from Storage		\$54,709	\$590,614	\$813,023	\$806,886	\$140,682	\$53,173	\$6,765	\$6,547	\$6,765	\$6,765	\$6,547	\$6,765	\$2,499,241
11	tab Commodity Cost from Storage, column k, line 61-72														
14	Commodity Cost from RNG/Brown Gas		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15	tab Commodity Cost from RNG, column i, line 61-72														
18	Total Commodity Cost		\$2,492,579	\$3,661,081	\$3,724,944	\$2,964,026	\$2,494,244	\$1,424,560	\$849,968	\$637,982	\$585,926	\$539,770	\$584,260	\$1,199,161	\$21,158,501
19	VOLUMES														
21	Commodity Volumes at Receipt Points		9,581,791	10,690,504	10,067,825	7,902,859	9,343,234	6,761,231	4,280,271	3,115,071	2,632,790	2,406,803	2,669,217	5,513,309	74,964,909
22	Pipeline Fuel Use		221,710	244,746	231,322	188,494	202,020	161,459	100,712	68,283	56,033	51,160	58,671	133,925	1,718,534
23	Gas Arriving at City Gate		9,360,081	10,445,758	9,836,504	7,714,366	9,141,214	6,599,772	4,179,560	3,046,788	2,576,758	2,355,643	2,610,546	5,379,384	73,246,374
24															
25	RNG/Brown Gas and Storage Gas Withdrawals		244,705	2,589,482	3,623,324	3,553,891	682,891	254,703	31,624	30,604	31,624	31,624	30,604	31,624	11,136,698
26	Pipeline Fuel Use for Off-site Storage		0	0	4,222	693	4,584	0	0	0	0	0	0	0	9,499
27	Storage Gas Deliveries at City Gate		244,705	2,589,482	3,619,102	3,553,198	678,306	254,703	31,624	30,604	31,624	31,624	30,604	31,624	11,127,198
28															
29	Total Gas At City Gate (Storage and Commodity)		9,604,786	13,035,240	13,455,605	11,267,564	9,819,521	6,854,475	4,211,184	3,077,391	2,608,382	2,387,267	2,641,150	5,411,008	84,373,573
30															
31	Unaccounted for Gas		68,897	76,888	72,404	56,783	67,286	48,579	30,765	22,427	18,967	17,339	19,216	39,596	539,147
32															
33	Load Served		9,535,889	12,958,352	13,383,202	11,210,781	9,752,234	6,805,895	4,180,419	3,054,965	2,589,415	2,369,928	2,621,934	5,371,412	83,834,425

NW Natural
 2020-2021 PGA - SYSTEM: September Filing
 Summary of Total Commodity Cost
 ALL VOLUMES IN THERMS

WASHINGTON COSTS		(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	
1	(a)	(b)	November	December	January	February	March	April	May	June	July	August	September	October	TOTAL
2			1	2	3	4	5	6	7	8	9	10	11	12	
3	WACOG Calculations														
38	Total Load Served														
39	Washington		9,535,889	12,958,352	13,383,202	11,210,781	9,752,234	6,805,895	4,180,419	3,054,965	2,589,415	2,369,928	2,621,934	5,371,412	83,834,425
40	Total (same as line 25 +/- rounding)		9,535,889	12,958,352	13,383,202	11,210,781	9,752,234	6,805,895	4,180,419	3,054,965	2,589,415	2,369,928	2,621,934	5,371,412	83,834,425
41															
42	Washington WACOG Calculation														
43															
44	Total Washington commodity cost		\$2,492,579	\$3,661,081	\$3,724,944	\$2,964,026	\$2,494,244	\$1,424,560	\$849,968	\$637,982	\$585,926	\$539,770	\$584,260	\$1,199,161	\$21,158,501
45	Total commodity cost for Washington		\$2,492,579	\$3,661,081	\$3,724,944	\$2,964,026	\$2,494,244	\$1,424,560	\$849,968	\$637,982	\$585,926	\$539,770	\$584,260	\$1,199,161	\$21,158,501
46															
47	Washington Sales WACOG (line 45 + line 39)		\$0.26139	\$0.28253	\$0.27833	\$0.26439	\$0.25576	\$0.20931	\$0.20332	\$0.20883	\$0.22628	\$0.22776	\$0.22284	\$0.22325	\$0.25238
48															
49	WASHINGTON BILLING WACOG		\$0.27273	\$0.29479	\$0.29041	\$0.27586	\$0.26686	\$0.21839	\$0.21214	\$0.21789	\$0.23610	\$0.23764	\$0.23251	\$0.23294	\$0.26333

NW Natural
 2020-2021 PGA - SYSTEM: September Filing
 Derivation of Washington per therm Non-Commodity Charges
 ALL VOLUMES IN THERMS

Washington Derivation of Demand Increments

		Without Revenue Sensitive (c)	WITH Revenue Sensitive (d)
1			
2			
3	(a)	(b)	
4	System Demand	\$73,816,036	
5	Washington Allocation Factor 1/	10.93%	
6	Washington Demand	\$8,068,093	
7			
8	Washington Firm Sales Forecasted Normal Volumes	82,576,341	
9	Washington Interruptible Sales Forecasted Normal Volumes	1,258,084	
10			
11			
12	Proposed Firm Demand Per Therm 2/	\$0.09719	\$0.10141
13	Proposed Interruptible Demand 2/	\$0.03395	\$0.03542
14	Proposed MDDV Demand Charge	\$1.45	\$1.51
15			
16	Current Firm Demand Per Therm	\$0.10629	\$0.11090
17	Current Interruptible Demand	\$0.03713	\$0.03874
18	Current MDDV Demand Charge	\$1.59	\$1.66
19			
20	Percent Change in Firm Demand	-8.56%	
21			
22			
23	1/Allocation Factor: 2019-20 PGA forecast firm sales volumes:		
24		<u>Washington</u>	<u>Oregon</u>
25	Firm Sales	82,576,341	673,011,521
26		10.93%	89.07%
27			<u>System</u>
28	2/Calculation of Proposed Demand Rates:		
29			
30	Demand change factor	0.914	
31			
32	Firm Demand (line 16 * line 30)	\$0.09719	\$8,025,381
33	Interruptible Demand (line 17 * line 30)	\$0.03395	\$42,712
34			<u>\$8,068,093</u>
35			\$0

NW Natural
2020-2021 PGA - SYSTEM: September Filing
 Calculation of Winter WACOG
 Prices are per therm

1	Forecast price for AECO gas:		
2			
3		<u>AECO/NIT</u>	
4			
5	November	\$0.19867	
6	December	\$0.20786	
7	January	\$0.21425	
8	February	\$0.21349	
9	March	\$0.20672	
10	April	\$0.18266	
11	May	\$0.17919	
12	June	\$0.17685	
13	July	\$0.18093	
14	August	\$0.18248	
15	September	\$0.18190	
16	October	\$0.18748	
17			
18			
19	Average price, November-March	\$0.20820	average lines 5-9
20			
21	Annual average price, November-October	\$0.19271	average lines 5-16
22			
23	Ratio of winter to annual	1.08038	line 19 ÷ line 21
24			
25		Without Rev	WITH Rev
26		<u>Sensitive</u>	<u>Sensitive</u>
WA	Washington Annual WACOG	\$0.25238	\$0.26333
WA	Washington Winter WACOG	\$0.27267	\$0.28450
		line 23 * \$0.25238	

NW Natural
Rates & Regulatory Affairs
2020-21 PGA - Washington: September Filing
Tariff Advice 20-09: PGA Effects on Revenue

	<u>Amount</u>	<u>Reference</u>
1		
2		
3		
4		
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	<u>Amount</u>	<u>Reference</u>
<u>Purchased Gas Cost Adjustment (PGA)</u>		
Gas Cost Change	\$5,065,474	NWN 2020-21 PGA gas cost development file September filing_WA.xls
Capacity Cost Change	<u>(618,344)</u>	NWN 2020-21 PGA gas cost development file September filing_WA.xls
Total PGA Change	<u>4,447,130</u>	
<u>Temporary Rate Adjustments</u>		
Proposed PGA Temporary Increments	(767,511)	NWN 2020-21 Washington PGA rate development file.xls
Removal of PGA Current Temporary Increments	<u>(548,974)</u>	NWN 2019-20 Washington PGA rate development file September filing_Rev 092519_CompEE.xlsx
Total Net Temporary Rate Adjustment	<u>(1,316,485)</u>	
TOTAL OF ALL COMPONENTS OF ALL RATE CHANGES	<u><u>\$3,130,645</u></u>	
2019 Washington CBR Normalized Total Revenues	\$65,154,832	
Effect of this filing, as a percentage change	4.80%	