

EXHIBIT A

BEFORE THE
WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

NW NATURAL
SUPPORTING MATERIALS

WA Low-Income Program Costs (Amortization)

NWN WUTC Advice No. 17-09 / UG-_____

September 12, 2017

NW NATURAL

EXHIBIT A

Supporting Materials

WA Low-Income Program Costs (AMORTIZATION)

NWN WUTC ADVICE NO. 17-09/ UG-_____

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NW Natural
Rates & Regulatory Affairs - Washington
2017-2018 PGA Filing - September Filing
Calculation of Increments Allocated on the EQUAL PERCENTAGE OF MARGIN BASIS

Line	Schedule	Block	PGA Column D	Billing Rate from Column A	WACOG & Demand from Column B	Tempo from Temporary Increment page, Column C	MARGIN Rate Column E	Volumetric Margin Column F	Customer Charge Column G	Customers Column H	Total Margin Column I	Low Income Bill Pay Assistance (GREAT)		WA-LIEE			
												Proposed Amount Revenue Sensitive Multiplier: Amount to Amortize:	Revenue Sensitive Multiplier: Amount to Amortize:	M	N	O	P
												274,082	4,372%	105,388	4,372%	110,201	4,372%
												286,613	4,372%	286,613	4,372%	286,613	4,372%
1	1R	186,451	\$1,12348	\$0.41759	\$0.68448	\$126,937.00	\$3.47	836				1.0	1.274	\$0.00687	1.0	490	\$0.00264
2	1C	29,901	\$1,11492	\$0.41759	\$0.31326	\$0.68407	\$20,454.00	\$3.47	38			1.0	174	\$0.00682	1.0	67	\$0.00224
3	2R	46,288	\$30,83207	\$0.83207	\$0.00314	\$0.41454	\$19,188,406.00	\$7.00	72,820			1.0	199,385	\$0.00413	1.0	76,663	\$0.00166
4	3 FS	17,409	\$0,82716	\$0.41759	\$0.04031	\$0.41858	\$1,287,104.00	\$15.00	5,857			1.0	65,723	\$0.00378	1.0	25,270	\$0.00145
5	3 FS	441,901	\$0,82674	\$0.41759	\$0.02930	\$0.41845	\$184,713.00	\$15.00	26			1.0	1,494	\$0.00338	1.0	574	\$0.00130
6	27	421,152	\$0,86169	\$0.41759	\$0.01010	\$0.29240	\$107,057.00	\$6.00	717			1.0	1,250	\$0.00291	1.0	481	\$0.00114
7	41C Firm Sales	1,686,868	\$0,58449	\$0.29379	\$0.01094	\$0.30164	\$960,675.00	\$250.00	84			1.0	9,555	\$0.00290	1.0	3,674	\$0.00115
8	Block 2	1,700,017	\$0,54573	\$0.29379	\$0.01385	\$0.26579						1.0	0	\$0.00264	1.0	0	\$0.00102
9	41C Intern Sales	0	\$0,59214	\$0.29379	\$0.00306	\$0.30141	\$0.00	\$250.00	0			1.0	0	\$0.00288	1.0	0	\$0.00111
10	Block 2	0	\$0,55349	\$0.29379	\$0.00586	\$0.26556						1.0	0	\$0.00254	1.0	0	\$0.00098
11	41 Firm Trans	374,368	\$0,30077	\$0.00000	\$0.00000	\$0.30077	\$271,814.00	\$500.00	17			0.0	0	\$0.00000	0.0	0	\$0.00000
12	Block 2	600,813	\$0,26500	\$0.00000	\$0.00000	\$0.26500						0.0	0	\$0.00000	0.0	0	\$0.00000
13	411 Firm Sales	251,387	\$0,56538	\$0.29379	\$0.03009	\$0.30168	\$153,412.00	\$250.00	14			1.0	1,540	\$0.00203	1.0	592	\$0.00116
14	Block 2	291,828	\$0,52888	\$0.29379	\$0.02132	\$0.30141						1.0	0	\$0.00288	1.0	0	\$0.00111
15	411 Intern Sales	0	\$0,53740	\$0.29379	\$0.02195	\$0.26556	\$0.00	\$250.00	0			1.0	0	\$0.00264	1.0	0	\$0.00098
16	Block 2	0	\$0,53740	\$0.29379	\$0.02195	\$0.26556						1.0	0	\$0.00264	1.0	0	\$0.00098
17	42C Firm Sales	460,278	\$0,39054	\$0.29379	\$0.02622	\$0.11871	\$80,277.00	\$1,300.00	6			1.0	1,370	\$0.00293	1.0	527	\$0.00078
18	Block 1	215,032	\$0,37669	\$0.29379	\$0.02342	\$0.10632						1.0	0	\$0.00181	1.0	0	\$0.00070
19	Block 3	33,692	\$0,34910	\$0.29379	\$0.02623	\$0.08154						1.0	0	\$0.00139	1.0	0	\$0.00054
20	Block 4	0	\$0,33095	\$0.29379	\$0.02807	\$0.06523						1.0	0	\$0.00111	1.0	0	\$0.00043
21	Block 5	0	\$0,30675	\$0.29379	\$0.03052	\$0.04348						1.0	0	\$0.00074	1.0	0	\$0.00029
22	Block 6	0	\$0,27649	\$0.29379	\$0.03360	\$0.01630						1.0	0	\$0.00028	1.0	0	\$0.00011
23	421 Firm Sales	988,918	\$0,37986	\$0.29379	\$0.03264	\$0.11871	\$199,678.00	\$1,300.00	12			1.0	3,048	\$0.00181	1.0	1,172	\$0.00070
24	Block 1	709,684	\$0,36712	\$0.29379	\$0.03293	\$0.10626						1.0	0	\$0.00162	1.0	0	\$0.00062
25	Block 3	67,540	\$0,34176	\$0.29379	\$0.03352	\$0.08149						1.0	0	\$0.00124	1.0	0	\$0.00048
26	Block 4	21,000	\$0,32508	\$0.29379	\$0.03390	\$0.06519						1.0	0	\$0.00100	1.0	0	\$0.00038
27	Block 5	0	\$0,30284	\$0.29379	\$0.03442	\$0.04347						1.0	0	\$0.00066	1.0	0	\$0.00026
28	Block 6	0	\$0,27592	\$0.29379	\$0.03506	\$0.01629						1.0	0	\$0.00025	1.0	0	\$0.00010
29	42 Firm Trans	1,315,288	\$0,11818	\$0.00000	\$0.00000	\$0.11818	\$508,752.00	\$1,550.00	10			0.0	0	\$0.00000	0.0	0	\$0.00000
30	Block 1	1,369,454	\$0,10579	\$0.00000	\$0.00000	\$0.10579						0.0	0	\$0.00000	0.0	0	\$0.00000
31	Block 2	1,035,145	\$0,08112	\$0.00000	\$0.00000	\$0.08112						0.0	0	\$0.00000	0.0	0	\$0.00000
32	Block 3	1,393,721	\$0,06490	\$0.00000	\$0.00000	\$0.06490						0.0	0	\$0.00000	0.0	0	\$0.00000
33	Block 4	297,087	\$0,04327	\$0.00000	\$0.00000	\$0.04327						0.0	0	\$0.00000	0.0	0	\$0.00000
34	Block 5	0	\$0,01622	\$0.00000	\$0.00000	\$0.01622						0.0	0	\$0.00000	0.0	0	\$0.00000
35	Block 6	231,331	\$0,39614	\$0.29379	\$0.01621	\$0.11856	\$99,724.00	\$1,300.00	1			1.0	909	\$0.00108	1.0	349	\$0.00041
36	42C Intern Sales	459,142	\$0,38261	\$0.29379	\$0.01730	\$0.10612						1.0	0	\$0.00097	1.0	0	\$0.00037
37	Block 2	223,176	\$0,35571	\$0.29379	\$0.01946	\$0.08138						1.0	0	\$0.00074	1.0	0	\$0.00028
38	Block 3	83,116	\$0,33801	\$0.29379	\$0.02088	\$0.06510						1.0	0	\$0.00059	1.0	0	\$0.00023
39	Block 4	0	\$0,31441	\$0.29379	\$0.02278	\$0.04340						1.0	0	\$0.00040	1.0	0	\$0.00015
40	Block 5	0	\$0,28492	\$0.29379	\$0.02515	\$0.01628						1.0	0	\$0.00015	1.0	0	\$0.00006
41	Block 6	165,010	\$0,39024	\$0.29379	\$0.02235	\$0.11870						1.0	890	\$0.00092	1.0	342	\$0.00116
42	421 Intern Sales	141,192	\$0,37754	\$0.29379	\$0.02270	\$0.10625						1.0	0	\$0.00270	1.0	0	\$0.00104
43	Block 2	5,213	\$0,35166	\$0.29379	\$0.02361	\$0.08148						1.0	0	\$0.00207	1.0	0	\$0.00080
44	Block 3	0	\$0,33477	\$0.29379	\$0.02420	\$0.06518						1.0	0	\$0.00166	1.0	0	\$0.00064
45	Block 4	0	\$0,31225	\$0.29379	\$0.02499	\$0.04345						1.0	0	\$0.00110	1.0	0	\$0.00042
46	Block 5	0	\$0,28411	\$0.29379	\$0.02598	\$0.01630						1.0	0	\$0.00041	1.0	0	\$0.00016
47	Block 6	829,148	\$0,11818	\$0.00000	\$0.00000	\$0.11818	\$765,890.00	\$1,550.00	11			0.0	0	\$0.00000	0.0	0	\$0.00000
48	42 Intern Trans	1,626,861	\$0,10579	\$0.00000	\$0.00000	\$0.10579						0.0	0	\$0.00000	0.0	0	\$0.00000
49	Block 2	1,295,797	\$0,08112	\$0.00000	\$0.00000	\$0.08112						0.0	0	\$0.00000	0.0	0	\$0.00000
50	Block 3	4,175,476	\$0,06490	\$0.00000	\$0.00000	\$0.06490						0.0	0	\$0.00000	0.0	0	\$0.00000
51	Block 4	2,766,172	\$0,04327	\$0.00000	\$0.00000	\$0.04327						0.0	0	\$0.00000	0.0	0	\$0.00000
52	Block 5	0	\$0,01622	\$0.00000	\$0.00000	\$0.01622						0.0	0	\$0.00000	0.0	0	\$0.00000
53	Block 6	0	\$0,00499	\$0.00000	\$0.00000	\$0.00499	\$0.00	\$38,000.00	0			0.0	0	\$0.00000	0.0	0	\$0.00000
54	43 Firm Trans	0	\$0,00499	\$0.00000	\$0.00000	\$0.00499						0.0	0	\$0.00000	0.0	0	\$0.00000
55	43 Intern Trans	0	\$0,00499	\$0.00000	\$0.00000	\$0.00499						0.0	0	\$0.00000	0.0	0	\$0.00000
56	Intentionally blank											0.0	0	\$0.00000	0.0	0	\$0.00000
57	Totals	89,789,697			\$29,990,106		\$38,414,943		36,375,887			\$286,612		36,375,887		\$110,201	

Sources for line 2 above:
 Inputs page
 Tariff Schedules:
 Schedule #

Note: Allocation to rate schedules or blocks with zero volumes is calculated on an overall margin percentage change basis.

NW Natural
 Rates & Regulatory Affairs
 2017-2018 PGA Filing - Washington: September Filing
 PGA Effects on Average Bill by Rate Schedule
 Calculation of Effect on Customer Average Bill by Rate Schedule [1]

		Washington PGA Normalized Volumes page, Column D	Therms in Block	Normal Therms Monthly Average use	Minimum Monthly Charge	Current 11/1/2016 Billing Rates	11/1/2016 Current Average Bill	Proposed 11/1/2017 GREAT & LIEE Rates	Proposed 11/1/2017 GREAT & LIEE Average Bill	Proposed 11/1/2017 GREAT & LIEE % Bill Change
		A	B	C	D	E	F = D + (C * E)	J	K = D + (C * J)	L
Schedule	Block									
1R		185,451	N/A	18.0	\$3.47	\$1.12348	\$23.69	\$1.12053	\$23.64	-0.2%
1C		29,901	N/A	66.0	\$3.47	\$1.11492	\$77.05	\$1.11232	\$76.88	-0.2%
2R		46,288,430	N/A	53.0	\$7.00	\$0.83247	\$51.12	\$0.83060	\$51.02	-0.2%
3 CFS		17,409,108	N/A	248.0	\$15.00	\$0.83216	\$221.38	\$0.83050	\$220.96	-0.2%
3 IFS		441,901	N/A	1,416.0	\$15.00	\$0.80674	\$1,157.34	\$0.80528	\$1,155.28	-0.2%
27		421,152	N/A	49.0	\$6.00	\$0.66169	\$38.42	\$0.66025	\$38.35	-0.2%
1C Firm Sal	Block 1	1,686,868	2,000	3,360.0	\$250.00	\$0.58449		\$0.58327		
	Block 2	1,700,017	all additional			\$0.54573		\$0.54466		
	TOTAL						\$2,161.17		\$2,157.28	-0.2%
C Interr Sal	Block 1	0	2,000	0.0	\$250.00	\$0.59214		\$0.59088		
	Block 2	0	all additional			\$0.55349		\$0.55239		
	TOTAL						\$250.00		\$250.00	0.0%
1 Firm Tran	Block 1	374,368	2,000	4,780.0	\$500.00	\$0.30077		\$0.30077		
	Block 2	600,813	all additional			\$0.26500		\$0.26500		
	TOTAL						\$1,838.24		\$1,838.24	0.0%
1I Firm Sale	Block 1	251,387	2,000	3,233.0	\$250.00	\$0.56538		\$0.56422		
	Block 2	291,828	all additional			\$0.52888		\$0.52787		
	TOTAL						\$2,032.87		\$2,029.30	-0.2%
1I Interr Sal	Block 1	0	2,000	0.0	\$250.00	\$0.57388		\$0.57262		
	Block 2	0	all additional			\$0.53740		\$0.53630		
	TOTAL						\$250.00		\$250.00	0.0%
2C Firm Sale	Block 1	460,278	10,000	9,847.0	\$1,300.00	\$0.39054		\$0.39041		
	Block 2	215,032	20,000			\$0.37669		\$0.37656		
	Block 3	33,692	20,000			\$0.34910		\$0.34901		
	Block 4	0	100,000			\$0.33095		\$0.33087		
	Block 5	0	600,000			\$0.30675		\$0.30670		
	Block 6	0	all additional			\$0.27649		\$0.27648		
	TOTAL						\$5,145.65		\$5,144.37	0.0%
2I Firm Sale	Block 1	988,918	10,000	12,411.0	\$1,300.00	\$0.37986		\$0.37957		
	Block 2	709,684	20,000			\$0.36712		\$0.36685		
	Block 3	67,540	20,000			\$0.34176		\$0.34156		
	Block 4	21,000	100,000			\$0.32508		\$0.32492		
	Block 5	0	600,000			\$0.30284		\$0.30274		
	Block 6	0	all additional			\$0.27502		\$0.27499		
	TOTAL						\$5,983.73		\$5,980.18	-0.1%
2 Firm Tran	Block 1	1,315,288	10,000	46,756.0	\$1,550.00	\$0.11818		\$0.11818		
	Block 2	1,569,454	20,000			\$0.10579		\$0.10579		
	Block 3	1,035,145	20,000			\$0.08112		\$0.08112		
	Block 4	1,393,721	100,000			\$0.06490		\$0.06490		
	Block 5	297,087	600,000			\$0.04327		\$0.04327		
	Block 6	0	all additional			\$0.01622		\$0.01622		
	TOTAL						\$6,206.85		\$6,206.85	0.0%
1C Interr Sal	Block 1	231,331	10,000	83,064.0	\$1,300.00	\$0.39614		\$0.39536		
	Block 2	459,142	20,000			\$0.38261		\$0.38192		
	Block 3	223,176	20,000			\$0.35571		\$0.35517		
	Block 4	83,116	100,000			\$0.33801		\$0.33758		
	Block 5	0	600,000			\$0.31441		\$0.31413		
	Block 6	0	all additional			\$0.28492		\$0.28482		
	TOTAL						\$31,203.76		\$31,157.15	-0.1%
1I Interr Sal	Block 1	165,010	10,000	5,190.0	\$1,300.00	\$0.39024		\$0.39010		
	Block 2	141,192	20,000			\$0.37734		\$0.37721		
	Block 3	5,213	20,000			\$0.35166		\$0.35157		
	Block 4	0	100,000			\$0.33477		\$0.33470		
	Block 5	0	600,000			\$0.31225		\$0.31219		
	Block 6	0	all additional			\$0.28411		\$0.28409		
	TOTAL						\$3,325.35		\$3,324.62	0.0%
2 Inter Tran	Block 1	829,148	10,000	81,011.0	\$1,550.00	\$0.11818		\$0.11818		
	Block 2	1,626,861	20,000			\$0.10579		\$0.10579		
	Block 3	1,295,797	20,000			\$0.08112		\$0.08112		
	Block 4	4,175,476	100,000			\$0.06490		\$0.06490		
	Block 5	2,766,172	600,000			\$0.04327		\$0.04327		
	Block 6	0	all additional			\$0.01622		\$0.01622		
	TOTAL						\$8,482.61		\$8,482.61	0.0%
3 Firm Trans		0	N/A	0.0	\$38,000.00	\$0.00499	\$38,000.00	\$0.00499	\$38,000.00	0.0%
3 Interr Trans		0	N/A	0.0	\$38,000.00	\$0.00499	\$38,000.00	\$0.00499	\$38,000.00	0.0%

[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
 2017-2018 PGA Filing - Washington: September Filing
 Summary of Deferred Accounts

Account	B	C	D	E	F	G	H	I
Balance 8/31/2017	Sep-Oct Estimated Activity	Sep-Oct Interest	Estimated Balance 10/31/2017	Estimated Interest During Amortization	Total Estimated Amount for (Refund) or Collection	Amounts Excluded from PGA Filing	Amounts Included in PGA Filing	
A	B	C	D	E	F	G	H	I
DSM & LOW INCOME PROGRAMS								
186234 WA LOW INCOME BILL PAY ASSIST (GREAT)	329,884	0	2,181	332,065	3.96%			
186235 WA GREAT AMORTIZATION	(17,432)	(46,101)	(238)	(63,772)				
	312,451	(46,101)	1,942	268,292	5,790	274,082		274,082
186314 WA WA-LIEE PROGRAM (2016 calendar year only)	110,392	0	730	111,122				
186315 AMORT WA-LIEE PROGRAM	(2,329)	(5,606)	(30)	(7,965)				
	108,063	(5,606)	699	103,157	2,226	105,383		105,383

E = sum B thru D
 F = 3.96%
 G = E + F
 Excl. Rev Sens

