

NW Natural
 Rates & Regulatory Affairs
 2016 Earnings Test
 Calculation of 13-month average Cost of Capital

Line	2015 Dec	2016 Jan	2016 Feb	2016 Mar	2016 Apr	2016 May	2016 Jun	2016 Jul	2016 Aug	2016 Sep	2016 Oct	2016 Nov	2016 Dec	13 Month Average	
1	Balances														
2	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	726,700,000	606,908,333	
3	Preferred Stock														
4	614,798,711	622,367,838	633,710,714	643,958,225	635,454,240	636,856,984	638,346,717	623,170,810	621,133,694	618,754,933	608,564,788	677,122,864	696,353,713	634,584,835	
5	Common Stock (see line 33)														
6	1,216,498,711	1,224,067,838	1,235,410,714	1,245,658,225	1,237,154,240	1,238,556,984	1,240,046,717	1,224,870,810	1,222,833,694	1,220,454,933	1,210,264,788	1,278,822,864	1,423,053,713	1,241,493,168	
7	Total Capital														
8	% of Total Capital														
9	49.46%	49.16%	48.70%	48.30%	48.64%	48.58%	48.52%	49.12%	49.21%	49.30%	49.72%	47.05%	51.07%	48.89%	
10	Long Term Debt														
11	50.54%	50.84%	51.30%	51.70%	51.36%	51.42%	51.48%	50.88%	50.79%	50.70%	50.28%	52.95%	48.93%	51.11%	
12	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
13	Average Cost														
14	Long Term Debt														
15	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	5.511%	6.130%	
16	Preferred Stock														
17	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	
18	Common Stock														
19	Weighted Average Cost of Debt														
20	3.04%	3.02%	3.00%	2.97%	2.99%	2.99%	2.99%	3.02%	3.03%	3.03%	3.06%	2.89%	2.81%	3.00%	
21	Long Term Debt														
22	4.80%	4.83%	4.87%	4.91%	4.88%	4.88%	4.89%	4.83%	4.83%	4.82%	4.78%	5.03%	4.65%	4.86%	
23	7.84%	7.85%	7.87%	7.88%	7.87%	7.87%	7.88%	7.85%	7.86%	7.85%	7.84%	7.92%	7.46%	7.86%	
24	Calculation of Utility Equity:														
25	NWN Corporate Equity														
26	780,832,633	788,353,568	799,413,868	808,394,659	799,175,641	800,385,498	801,562,902	786,235,007	783,801,514	780,927,566	770,179,494	838,510,930	856,501,382	797,967,305	
27	123016	INVEST IN NNG FINL	368,660	368,660	367,765	361,428	361,289	361,139	354,653	354,653	348,242	348,242	348,166	172,077	349,932
28	123020	INVEST IN NW BIOGAS	30,401	30,401	30,401	30,401	30,401	28,868	28,868	28,868	28,868	28,868	28,868	27,222	29,374
29	123410	INVEST - NWN ENERGY	165,634,862	165,586,670	165,304,989	164,044,605	163,329,711	163,138,507	162,832,664	162,680,676	161,795,523	161,237,596	161,011,032	159,948,370	163,003,163
30	614,798,711	622,367,838	633,710,714	643,958,225	635,454,240	636,856,984	638,346,717	623,170,810	621,133,694	618,754,933	608,564,788	677,122,864	696,353,713	634,584,835	
	NWN Utility Equity														

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2016 Commission Basis Reprt
Calculation of 13-month average Cost of Capital

	2015 Dec	2016 Jan	2016 Feb	2016 Mar	2016 Apr	2016 May	2016 Jun	2016 Jul	2016 Aug	2016 Sep	2016 Oct	2016 Nov	2016 Dec	(13mo. AMA) 13 Mo Average
1 <u>Balances</u>														
2 Long Term Debt	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	601,700,000	726,700,000	606,908,333
3 Short Term Debt (System Working Capital)	\$142,363,996	\$127,197,007	\$125,785,292	\$115,104,912	\$88,770,104	\$92,482,075	\$91,977,193	\$85,729,429	\$96,296,199	\$90,650,071	\$91,140,672	\$124,326,838	\$137,181,573	105,769,381
4 Preferred Stock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Common Stock	614,798,711	622,367,838	633,710,714	643,958,225	635,454,240	636,856,984	638,346,717	623,170,810	621,133,694	618,754,933	608,564,788	677,122,864	696,353,713	634,584,835
6														
7 Total Capital	1,358,862,707	1,351,264,845	1,361,196,006	1,360,763,137	1,325,924,344	1,331,039,059	1,332,023,911	1,310,600,239	1,319,129,894	1,311,105,004	1,301,405,461	1,403,149,702	1,560,235,286	1,347,262,550
8														
9														
10 <u>% of Total Capital</u>														
11 Long Term Debt	44.28%	44.53%	44.20%	44.22%	45.38%	45.21%	45.17%	45.91%	45.61%	45.89%	46.23%	42.88%	46.58%	45.05%
12 Short Term Debt	10.48%	9.41%	9.24%	8.46%	6.69%	6.95%	6.91%	6.54%	7.30%	6.91%	7.00%	8.86%	8.79%	7.85%
13 Preferred Stock	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14 Common Stock	45.24%	46.06%	46.56%	47.32%	47.93%	47.85%	47.92%	47.55%	47.09%	47.19%	46.76%	48.26%	44.63%	47.10%
15	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
16														
17 <u>Average Cost</u>														
18 Long Term Debt	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	6.152%	5.511%	6.13%
19 Short Term Debt	0.401%	0.422%	0.447%	0.474%	0.497%	0.532%	0.549%	0.573%	0.601%	0.628%	0.664%	0.695%	0.722%	0.55%
20 Preferred Stock	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.00%
21 Common Stock	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.100%	10.10%
22														
23														
24 <u>Weighted Average Cost of Debt</u>														
25 Long Term Debt	2.72%	2.74%	2.72%	2.72%	2.79%	2.78%	2.78%	2.82%	2.81%	2.82%	2.84%	2.64%	2.57%	2.76%
26 Short Term Debt	0.04%	0.04%	0.04%	0.04%	0.03%	0.04%	0.04%	0.04%	0.04%	0.04%	0.05%	0.06%	0.06%	0.04%
27 Preferred Stock	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
28 Common Stock	4.57%	4.65%	4.70%	4.78%	4.84%	4.83%	4.84%	4.80%	4.76%	4.77%	4.72%	4.87%	4.51%	4.76%
29	7.33%	7.43%	7.46%	7.54%	7.66%	7.65%	7.66%	7.66%	7.61%	7.63%	7.61%	7.57%	7.14%	7.56%