

MDU Resources Group, Inc.
 NDPSC Case No. PU-16-666

National Electric Utility Proxy Group DCF Analysis Using Two-Step Growth DCF Methodology
 Value Line Electrics with S&P CCR of BBB to A-
 Using Data for the Six Months Ending January 2017

Line No.	Company (a)	Ticker (b)	Standard & Poor's Corporate Credit Rating (c)	Moody's Long Term Issuer or Sr Unsecured Rating (d)	Value Line Safety Rank (e)	Six Month Average Dividend Yld (f)	IBES Analysts' Proj EPS g (g)	Long-term GDP Growth Rate (h)	Composite Growth Rate (i)	Adjusted Dividend Yield (j)	DCF ROE Ke (k)	Price to Book Value (l)
1	ALLETE	ALE	BBB+	A3	2	3.38%	5.00%	4.35%	4.78%	3.47%	8.25%	1.62
2	Alliant Energy	LNT	A-	Baa1	2	3.12%	6.00%	4.35%	5.45%	3.20%	8.65%	2.09
3	Amer. Elec. Power	AEP	A-	Baa1	2	3.63%	1.49%	4.35%	2.44%	3.68%	6.12%	1.80
4	Ameren Corp.	AEE	BBB+	Baa1	2	3.42%	5.85%	4.35%	5.35%	3.52%	8.87%	1.70
5	Avista Corp.	AVA	BBB	Baa1	2	3.36%	5.65%	4.35%	5.22%	3.45%	8.67%	1.60
6	Black Hills Corp.	BKH	BBB	Baa2	2	2.80%	8.39%	4.35%	7.04%	2.90%	9.94%	1.99
7	CMS Energy	CMS	BBB+	Baa2	2	2.97%	7.26%	4.35%	6.29%	3.06%	9.35%	2.78
8	Consol. Edison	ED	A-	A3	1	3.62%	2.02%	4.35%	2.80%	3.67%	6.47%	1.58
9	DTE Energy	DTE	BBB+	Baa1	2	3.29%	5.51%	4.35%	5.12%	3.37%	8.50%	1.88
10	Edison Int'l	EIX	BBB+	A3	2	2.72%	1.92%	4.35%	2.73%	2.76%	5.49%	1.96
11	El Paso Electric	EE	BBB	Baa1	2	2.70%	6.50%	4.35%	5.78%	2.78%	8.56%	1.76
12	Entergy Corp.	ETR	BBB+	Baa3	3	4.65%	-8.19%	4.35%	-4.01%	4.56%	0.55%	1.38
13	Exelon Corp.	EXC	BBB	Baa2	3	3.74%	5.95%	4.35%	5.42%	3.85%	9.26%	1.22
14	IDACORP, Inc.	IDA	BBB	Baa1	2	2.72%	4.10%	4.35%	4.18%	2.78%	6.96%	1.82
15	NorthWestern Corp.	NWE	BBB	A3	3	3.50%	4.34%	4.35%	4.34%	3.57%	7.92%	1.66
16	OGE Energy Corp.	OGE	A-	A3	2	3.70%	4.00%	4.35%	4.12%	3.77%	7.89%	1.84
17	Otter Tail Corp.	OTTR	BBB	NR	2	3.43%	6.00%	4.35%	5.45%	3.52%	8.97%	2.12
18	PG&E Corp.	PCG	BBB+	Baa1	3	3.21%	5.67%	4.35%	5.23%	3.29%	8.52%	1.74
19	Pinnacle West	PNW	A-	A3	1	3.37%	5.30%	4.35%	4.98%	3.46%	8.44%	1.78
20	PNM Resources, Inc.	PNM	BBB+	Baa3	3	2.68%	6.85%	4.35%	6.02%	2.76%	8.78%	1.45
21	Portland General	POR	BBB	A3	2	3.00%	6.60%	4.35%	5.85%	3.08%	8.93%	1.63
22	PPL Corp.	PPL	A-	Baa2	2	4.43%	2.44%	4.35%	3.08%	4.50%	7.58%	2.36
23	Public Serv. Enterprise	PEG	BBB+	Baa2	1	3.85%	1.17%	4.35%	2.23%	3.90%	6.13%	1.64
24	SCANA Corp.	SCG	BBB+	Baa3	2	3.21%	5.70%	4.35%	5.25%	3.30%	8.55%	1.80
25	Sempra Energy	SRE	BBB+	Baa1	2	2.91%	6.50%	4.35%	5.78%	2.99%	8.78%	2.10
26	Southern Co.	SO	A-	Baa2	2	4.47%	3.14%	4.35%	3.54%	4.55%	8.09%	1.75
27	Vectren Corp.	VVC	A-	NR	2	3.26%	4.57%	4.35%	4.50%	3.33%	7.83%	2.34
28	WEC Energy Group	WEC	A-	A3	1	3.36%	6.73%	4.35%	5.94%	3.46%	9.40%	2.09
29	Xcel Energy	XEL	A-	A3	1	3.33%	5.65%	4.35%	5.22%	3.42%	8.63%	1.88
30	Average				2.0	3.37%	4.56%	4.35%	4.49%	3.45%	7.93%	1.84
31	Low - 29 Companies										0.55%	
32	High - 29 Companies										9.94%	
33	Median										8.52%	
34	True 75th Percentile Value										8.78%	
35	Midpoint of the Top Half of the Array										7.59%	
<u>After Adjustment To Remove ETR</u>												
36	Low - 28 Companies										5.49%	
37	High - 28 Companies										9.94%	
38	Median and Recommended ROE for MDU										8.53%	
39	True 75th Percentile Value										8.80%	
40	Midpoint of the Top Half of the Array										8.83%	
36	MDU Resources Group	MDU	BBB+									

Notes:

- (f) - Avg. of the monthly low and high dividend yields for the 6 months ending Jan. 31, 2017. (pp. 2-6)
- (g) - Thomson Reuters/IBES reported consensus of analysts' projected "5-year" earnings per share growth rate from Yahoo! Finance as of January 31, 2017. Xcel growth rate from Reuters.
- (h) - Average long-term GDP growth rate.
- (i) - Composite avg. growth rate with IBES and GDP growth rates weighted 2/3 and 1/3, respectively.
- (j) - Dividend yield times (1 + 0.5g), where g = composite average growth rate.
- (k) - ROE equals the adjusted dividend yield plus the composite average growth rate.
- (l) - Price to book values calculated using August 2016 - January 2017 average market price and Value Line reported year end 2016 book values. (p. 7)

Moody's Public Utility Bond Index Yields

Aug 2016 - Jan 2017	Threshold
A Bond Avg Yield: 3.94%	4.94%
Baa Bond Avg Yield: 4.51%	5.51%
Average 4.22%	5.22%

SIX MONTH AVERAGE DIVIDEND YIELD

	Price			Div	Dividend Yield		
	High	Low	Avg		Low	High	Avg
ALLETE							
Jan-17	\$ 65.48	\$ 61.64	\$ 63.56	\$ 2.080	3.18%	3.37%	3.27%
Dec-16	\$ 66.92	\$ 60.97	\$ 63.94	\$ 2.080	3.11%	3.41%	3.25%
Nov-16	\$ 64.57	\$ 56.48	\$ 60.53	\$ 2.080	3.22%	3.68%	3.44%
Oct-16	\$ 61.40	\$ 56.57	\$ 58.99	\$ 2.080	3.39%	3.68%	3.53%
Sep-16	\$ 62.70	\$ 58.20	\$ 60.45	\$ 2.080	3.32%	3.57%	3.44%
Aug-16	\$ 64.46	\$ 58.60	\$ 61.53	\$ 2.080	3.23%	3.55%	3.38%
Average	\$ 64.26	\$ 58.74	\$ 61.50		3.24%	3.54%	3.38%
Alliant Energy							
Jan-17	\$ 38.29	\$ 36.56	\$ 37.43	\$ 1.176	3.07%	3.22%	3.14%
Dec-16	\$ 38.34	\$ 35.26	\$ 36.80	\$ 1.176	3.07%	3.34%	3.20%
Nov-16	\$ 38.67	\$ 34.88	\$ 36.77	\$ 1.176	3.04%	3.37%	3.20%
Oct-16	\$ 38.33	\$ 36.31	\$ 37.32	\$ 1.176	3.07%	3.24%	3.15%
Sep-16	\$ 40.60	\$ 37.09	\$ 38.84	\$ 1.176	2.90%	3.17%	3.03%
Aug-16	\$ 40.58	\$ 37.69	\$ 39.14	\$ 1.176	2.90%	3.12%	3.00%
Average	\$ 39.14	\$ 36.30	\$ 37.72		3.01%	3.24%	3.12%
Amer. Elec. Power							
Jan-17	\$ 64.11	\$ 61.82	\$ 62.97	\$ 2.360	3.68%	3.82%	3.75%
Dec-16	\$ 63.53	\$ 57.89	\$ 60.71	\$ 2.360	3.71%	4.08%	3.89%
Nov-16	\$ 64.90	\$ 58.16	\$ 61.53	\$ 2.360	3.64%	4.06%	3.84%
Oct-16	\$ 65.25	\$ 61.28	\$ 63.26	\$ 2.240	3.43%	3.66%	3.54%
Sep-16	\$ 66.96	\$ 63.56	\$ 65.26	\$ 2.240	3.35%	3.52%	3.43%
Aug-16	\$ 69.48	\$ 64.07	\$ 66.78	\$ 2.240	3.22%	3.50%	3.35%
Average	\$ 65.71	\$ 61.13	\$ 63.42		3.51%	3.77%	3.63%
Ameren Corp.							
Jan-17	\$ 53.40	\$ 51.35	\$ 52.38	\$ 1.760	3.30%	3.43%	3.36%
Dec-16	\$ 52.88	\$ 48.32	\$ 50.60	\$ 1.760	3.33%	3.64%	3.48%
Nov-16	\$ 51.46	\$ 46.97	\$ 49.22	\$ 1.700	3.30%	3.62%	3.45%
Oct-16	\$ 50.25	\$ 46.84	\$ 48.55	\$ 1.700	3.38%	3.63%	3.50%
Sep-16	\$ 51.91	\$ 47.79	\$ 49.85	\$ 1.700	3.27%	3.56%	3.41%
Aug-16	\$ 52.59	\$ 49.15	\$ 50.87	\$ 1.700	3.23%	3.46%	3.34%
Average	\$ 52.08	\$ 48.40	\$ 50.24		3.30%	3.56%	3.42%
Avista Corp.							
Jan-17	\$ 40.17	\$ 37.88	\$ 39.02	\$ 1.372	3.42%	3.62%	3.52%
Dec-16	\$ 43.00	\$ 38.69	\$ 40.84	\$ 1.372	3.19%	3.55%	3.36%
Nov-16	\$ 42.26	\$ 39.21	\$ 40.73	\$ 1.372	3.25%	3.50%	3.37%
Oct-16	\$ 41.74	\$ 38.99	\$ 40.37	\$ 1.372	3.29%	3.52%	3.40%
Sep-16	\$ 43.74	\$ 40.38	\$ 42.06	\$ 1.372	3.14%	3.40%	3.26%
Aug-16	\$ 43.71	\$ 40.30	\$ 42.00	\$ 1.372	3.14%	3.40%	3.27%
Average	\$ 42.44	\$ 39.24	\$ 40.84		3.24%	3.50%	3.36%
Black Hills Corp.							
Jan-17	\$ 62.70	\$ 60.02	\$ 61.36	\$ 1.680	2.68%	2.80%	2.74%
Dec-16	\$ 62.83	\$ 57.58	\$ 60.21	\$ 1.680	2.67%	2.92%	2.79%
Nov-16	\$ 61.90	\$ 54.76	\$ 58.33	\$ 1.680	2.71%	3.07%	2.88%
Oct-16	\$ 62.07	\$ 56.53	\$ 59.30	\$ 1.680	2.71%	2.97%	2.83%
Sep-16	\$ 63.79	\$ 57.51	\$ 60.65	\$ 1.680	2.63%	2.92%	2.77%
Aug-16	\$ 63.87	\$ 56.86	\$ 60.37	\$ 1.680	2.63%	2.95%	2.78%
Average	\$ 62.86	\$ 57.21	\$ 60.04		2.67%	2.94%	2.80%

MDU Resources Group, Inc.
NDPSC Case No. PU-16-666

CMS Energy

Jan-17	\$ 42.61	\$ 41.12	\$ 41.87	\$ 1.240	2.91%	3.02%	2.96%
Dec-16	\$ 42.00	\$ 39.42	\$ 40.71	\$ 1.240	2.95%	3.15%	3.05%
Nov-16	\$ 42.27	\$ 38.78	\$ 40.52	\$ 1.240	2.93%	3.20%	3.06%
Oct-16	\$ 42.55	\$ 40.01	\$ 41.28	\$ 1.240	2.91%	3.10%	3.00%
Sep-16	\$ 44.44	\$ 41.14	\$ 42.79	\$ 1.240	2.79%	3.01%	2.90%
Aug-16	\$ 45.37	\$ 41.49	\$ 43.43	\$ 1.240	2.73%	2.99%	2.86%
Average	\$ 43.21	\$ 40.33	\$ 41.77		2.87%	3.08%	2.97%

Consol. Edison

Jan-17	\$ 74.83	\$ 72.13	\$ 73.48	\$ 2.680	3.58%	3.72%	3.65%
Dec-16	\$ 74.30	\$ 68.85	\$ 71.58	\$ 2.680	3.61%	3.89%	3.74%
Nov-16	\$ 75.62	\$ 68.76	\$ 72.19	\$ 2.680	3.54%	3.90%	3.71%
Oct-16	\$ 76.03	\$ 71.35	\$ 73.69	\$ 2.680	3.52%	3.76%	3.64%
Sep-16	\$ 79.54	\$ 72.93	\$ 76.24	\$ 2.680	3.37%	3.67%	3.52%
Aug-16	\$ 80.61	\$ 74.09	\$ 77.35	\$ 2.680	3.32%	3.62%	3.46%
Average	\$ 76.82	\$ 71.35	\$ 74.09		3.49%	3.76%	3.62%

DTE Energy

Jan-17	\$ 99.49	\$ 96.58	\$ 98.04	\$ 3.300	3.32%	3.42%	3.37%
Dec-16	\$ 99.92	\$ 92.19	\$ 96.06	\$ 3.300	3.30%	3.58%	3.44%
Nov-16	\$ 96.78	\$ 89.66	\$ 93.22	\$ 3.080	3.18%	3.44%	3.30%
Oct-16	\$ 96.54	\$ 90.75	\$ 93.65	\$ 3.080	3.19%	3.39%	3.29%
Sep-16	\$ 97.60	\$ 90.61	\$ 94.10	\$ 3.080	3.16%	3.40%	3.27%
Aug-16	\$ 98.44	\$ 92.24	\$ 95.34	\$ 2.920	2.97%	3.17%	3.06%
Average	\$ 98.13	\$ 92.01	\$ 95.07		3.19%	3.40%	3.29%

Edison Int'l

Jan-17	\$ 72.95	\$ 70.57	\$ 71.76	\$ 2.172	2.98%	3.08%	3.03%
Dec-16	\$ 72.62	\$ 67.73	\$ 70.18	\$ 1.920	2.64%	2.83%	2.74%
Nov-16	\$ 73.44	\$ 67.44	\$ 70.44	\$ 1.920	2.61%	2.85%	2.73%
Oct-16	\$ 73.81	\$ 69.21	\$ 71.51	\$ 1.920	2.60%	2.77%	2.68%
Sep-16	\$ 76.30	\$ 71.31	\$ 73.81	\$ 1.920	2.52%	2.69%	2.60%
Aug-16	\$ 77.40	\$ 71.74	\$ 74.57	\$ 1.920	2.48%	2.68%	2.57%
Average	\$ 74.42	\$ 69.67	\$ 72.04		2.64%	2.82%	2.72%

EI Paso Electric

Jan-17	\$ 47.20	\$ 44.70	\$ 45.95	\$ 1.240	2.63%	2.77%	2.70%
Dec-16	\$ 48.35	\$ 44.55	\$ 46.45	\$ 1.240	2.56%	2.78%	2.67%
Nov-16	\$ 47.55	\$ 43.55	\$ 45.55	\$ 1.240	2.61%	2.85%	2.72%
Oct-16	\$ 47.00	\$ 42.49	\$ 44.75	\$ 1.240	2.64%	2.92%	2.77%
Sep-16	\$ 48.75	\$ 44.07	\$ 46.41	\$ 1.240	2.54%	2.81%	2.67%
Aug-16	\$ 47.82	\$ 44.82	\$ 46.32	\$ 1.240	2.59%	2.77%	2.68%
Average	\$ 47.78	\$ 44.03	\$ 45.90		2.60%	2.82%	2.70%

Entergy Corp.

Jan-17	\$ 73.89	\$ 70.02	\$ 71.95	\$ 3.480	4.71%	4.97%	4.84%
Dec-16	\$ 73.79	\$ 67.84	\$ 70.81	\$ 3.480	4.72%	5.13%	4.91%
Nov-16	\$ 73.71	\$ 66.71	\$ 70.21	\$ 3.480	4.72%	5.22%	4.96%
Oct-16	\$ 76.56	\$ 70.90	\$ 73.73	\$ 3.400	4.44%	4.80%	4.61%
Sep-16	\$ 81.83	\$ 75.99	\$ 78.91	\$ 3.400	4.15%	4.47%	4.31%
Aug-16	\$ 82.00	\$ 76.60	\$ 79.30	\$ 3.400	4.15%	4.44%	4.29%
Average	\$ 76.96	\$ 71.34	\$ 74.15		4.48%	4.84%	4.65%

MDU Resources Group, Inc.
NDPSC Case No. PU-16-666

Exelon Corp.

Jan-17	\$ 36.21	\$ 34.80	\$ 35.50	\$ 1.272	3.51%	3.66%	3.58%
Dec-16	\$ 36.36	\$ 31.77	\$ 34.07	\$ 1.272	3.50%	4.00%	3.73%
Nov-16	\$ 34.06	\$ 29.82	\$ 31.94	\$ 1.272	3.73%	4.27%	3.98%
Oct-16	\$ 34.13	\$ 31.68	\$ 32.91	\$ 1.272	3.73%	4.02%	3.87%
Sep-16	\$ 35.27	\$ 32.86	\$ 34.07	\$ 1.272	3.61%	3.87%	3.73%
Aug-16	\$ 37.70	\$ 33.61	\$ 35.66	\$ 1.272	3.37%	3.78%	3.57%
Average	\$ 35.62	\$ 32.42	\$ 34.02		3.58%	3.93%	3.74%

IDACORP, Inc.

Jan-17	\$ 81.14	\$ 77.49	\$ 79.31	\$ 2.200	2.71%	2.84%	2.77%
Dec-16	\$ 81.81	\$ 75.03	\$ 78.42	\$ 2.200	2.69%	2.93%	2.81%
Nov-16	\$ 79.43	\$ 72.93	\$ 76.18	\$ 2.200	2.77%	3.02%	2.89%
Oct-16	\$ 78.86	\$ 73.33	\$ 76.10	\$ 2.040	2.59%	2.78%	2.68%
Sep-16	\$ 81.55	\$ 75.14	\$ 78.35	\$ 2.040	2.50%	2.71%	2.60%
Aug-16	\$ 81.71	\$ 75.46	\$ 78.58	\$ 2.040	2.50%	2.70%	2.60%
Average	\$ 80.75	\$ 74.90	\$ 77.82		2.63%	2.83%	2.72%

NorthWestern Corp.

Jan-17	\$ 57.88	\$ 55.99	\$ 56.94	\$ 2.000	3.46%	3.57%	3.51%
Dec-16	\$ 58.08	\$ 54.07	\$ 56.08	\$ 2.000	3.44%	3.70%	3.57%
Nov-16	\$ 59.13	\$ 54.78	\$ 56.96	\$ 2.000	3.38%	3.65%	3.51%
Oct-16	\$ 57.76	\$ 53.85	\$ 55.80	\$ 2.000	3.46%	3.71%	3.58%
Sep-16	\$ 60.71	\$ 56.18	\$ 58.44	\$ 2.000	3.29%	3.56%	3.42%
Aug-16	\$ 61.32	\$ 57.09	\$ 59.21	\$ 2.000	3.26%	3.50%	3.38%
Average	\$ 59.15	\$ 55.33	\$ 57.24		3.38%	3.62%	3.50%

OGE Energy Corp.

Jan-17	\$ 34.16	\$ 32.85	\$ 33.50	\$ 1.212	3.55%	3.69%	3.62%
Dec-16	\$ 34.23	\$ 31.26	\$ 32.75	\$ 1.212	3.54%	3.88%	3.70%
Nov-16	\$ 32.48	\$ 29.57	\$ 31.03	\$ 1.212	3.73%	4.10%	3.91%
Oct-16	\$ 31.69	\$ 29.61	\$ 30.65	\$ 1.212	3.82%	4.09%	3.95%
Sep-16	\$ 33.10	\$ 30.59	\$ 31.84	\$ 1.100	3.32%	3.60%	3.45%
Aug-16	\$ 32.29	\$ 29.91	\$ 31.10	\$ 1.100	3.41%	3.68%	3.54%
Average	\$ 32.99	\$ 30.63	\$ 31.81		3.56%	3.84%	3.70%

Otter Tail Corp.

Jan-17	\$ 40.80	\$ 37.05	\$ 38.92	\$ 1.252	3.07%	3.38%	3.22%
Dec-16	\$ 42.55	\$ 37.75	\$ 40.15	\$ 1.252	2.94%	3.32%	3.12%
Nov-16	\$ 39.75	\$ 33.45	\$ 36.60	\$ 1.252	3.15%	3.74%	3.42%
Oct-16	\$ 36.50	\$ 33.08	\$ 34.79	\$ 1.252	3.43%	3.78%	3.60%
Sep-16	\$ 36.42	\$ 33.91	\$ 35.16	\$ 1.252	3.44%	3.69%	3.56%
Aug-16	\$ 35.42	\$ 32.99	\$ 34.21	\$ 1.252	3.53%	3.80%	3.66%
Average	\$ 38.57	\$ 34.71	\$ 36.64		3.26%	3.62%	3.43%

PG&E Corp.

Jan-17	\$ 61.91	\$ 59.89	\$ 60.90	\$ 1.960	3.17%	3.27%	3.22%
Dec-16	\$ 61.54	\$ 57.60	\$ 59.57	\$ 1.960	3.18%	3.40%	3.29%
Nov-16	\$ 62.23	\$ 57.63	\$ 59.93	\$ 1.960	3.15%	3.40%	3.27%
Oct-16	\$ 62.69	\$ 58.20	\$ 60.45	\$ 1.960	3.13%	3.37%	3.24%
Sep-16	\$ 64.40	\$ 60.44	\$ 62.42	\$ 1.960	3.04%	3.24%	3.14%
Aug-16	\$ 65.39	\$ 61.48	\$ 63.43	\$ 1.960	3.00%	3.19%	3.09%
Average	\$ 63.03	\$ 59.21	\$ 61.12		3.11%	3.31%	3.21%

**MDU Resources Group, Inc.
 NDPSC Case No. PU-16-666**

Pinnacle West

Jan-17	\$ 78.80	\$ 75.79	\$ 77.30	\$ 2.620	3.32%	3.46%	3.39%
Dec-16	\$ 78.97	\$ 72.61	\$ 75.79	\$ 2.620	3.32%	3.61%	3.46%
Nov-16	\$ 77.34	\$ 70.86	\$ 74.10	\$ 2.620	3.39%	3.70%	3.54%
Oct-16	\$ 76.59	\$ 72.07	\$ 74.33	\$ 2.500	3.26%	3.47%	3.36%
Sep-16	\$ 80.19	\$ 73.94	\$ 77.07	\$ 2.500	3.12%	3.38%	3.24%
Aug-16	\$ 79.54	\$ 74.28	\$ 76.91	\$ 2.500	3.14%	3.37%	3.25%
Average	\$ 78.57	\$ 73.26	\$ 75.92		3.26%	3.50%	3.37%

PNM Resources, Inc.

Jan-17	\$ 34.75	\$ 33.35	\$ 34.05	\$ 0.880	2.53%	2.64%	2.58%
Dec-16	\$ 34.53	\$ 31.00	\$ 32.76	\$ 0.880	2.55%	2.84%	2.69%
Nov-16	\$ 33.45	\$ 30.95	\$ 32.20	\$ 0.880	2.63%	2.84%	2.73%
Oct-16	\$ 33.25	\$ 30.98	\$ 32.12	\$ 0.880	2.65%	2.84%	2.74%
Sep-16	\$ 34.91	\$ 31.20	\$ 33.06	\$ 0.880	2.52%	2.82%	2.66%
Aug-16	\$ 34.51	\$ 31.56	\$ 33.03	\$ 0.880	2.55%	2.79%	2.66%
Average	\$ 34.23	\$ 31.51	\$ 32.87		2.57%	2.80%	2.68%

Portland General

Jan-17	\$ 44.15	\$ 42.61	\$ 43.38	\$ 1.280	2.90%	3.00%	2.95%
Dec-16	\$ 44.14	\$ 40.71	\$ 42.42	\$ 1.280	2.90%	3.14%	3.02%
Nov-16	\$ 43.91	\$ 40.87	\$ 42.39	\$ 1.280	2.92%	3.13%	3.02%
Oct-16	\$ 44.32	\$ 40.28	\$ 42.30	\$ 1.280	2.89%	3.18%	3.03%
Sep-16	\$ 44.12	\$ 41.71	\$ 42.91	\$ 1.280	2.90%	3.07%	2.98%
Aug-16	\$ 44.46	\$ 41.51	\$ 42.98	\$ 1.280	2.88%	3.08%	2.98%
Average	\$ 44.18	\$ 41.28	\$ 42.73		2.90%	3.10%	3.00%

PPL Corp.

Jan-17	\$ 34.92	\$ 33.72	\$ 34.32	\$ 1.520	4.35%	4.51%	4.43%
Dec-16	\$ 34.90	\$ 32.69	\$ 33.80	\$ 1.520	4.36%	4.65%	4.50%
Nov-16	\$ 34.98	\$ 32.46	\$ 33.72	\$ 1.520	4.35%	4.68%	4.51%
Oct-16	\$ 34.57	\$ 32.08	\$ 33.33	\$ 1.520	4.40%	4.74%	4.56%
Sep-16	\$ 35.94	\$ 33.52	\$ 34.73	\$ 1.520	4.23%	4.53%	4.38%
Aug-16	\$ 37.76	\$ 34.35	\$ 36.05	\$ 1.520	4.03%	4.43%	4.22%
Average	\$ 35.51	\$ 33.14	\$ 34.32		4.28%	4.59%	4.43%

Public Serv. Enterprise

Jan-17	\$ 44.70	\$ 42.86	\$ 43.78	\$ 1.640	3.67%	3.83%	3.75%
Dec-16	\$ 44.29	\$ 40.72	\$ 42.51	\$ 1.640	3.70%	4.03%	3.86%
Nov-16	\$ 43.11	\$ 39.28	\$ 41.20	\$ 1.640	3.80%	4.18%	3.98%
Oct-16	\$ 42.25	\$ 40.38	\$ 41.32	\$ 1.640	3.88%	4.06%	3.97%
Sep-16	\$ 44.01	\$ 41.07	\$ 42.54	\$ 1.640	3.73%	3.99%	3.86%
Aug-16	\$ 46.10	\$ 42.25	\$ 44.17	\$ 1.640	3.56%	3.88%	3.71%
Average	\$ 44.08	\$ 41.09	\$ 42.59		3.72%	3.99%	3.85%

SCANA Corp.

Jan-17	\$ 74.06	\$ 67.71	\$ 70.88	\$ 2.300	3.11%	3.40%	3.24%
Dec-16	\$ 74.99	\$ 69.71	\$ 72.35	\$ 2.300	3.07%	3.30%	3.18%
Nov-16	\$ 73.52	\$ 67.31	\$ 70.41	\$ 2.300	3.13%	3.42%	3.27%
Oct-16	\$ 73.83	\$ 67.91	\$ 70.87	\$ 2.300	3.12%	3.39%	3.25%
Sep-16	\$ 75.92	\$ 69.04	\$ 72.48	\$ 2.300	3.03%	3.33%	3.17%
Aug-16	\$ 75.80	\$ 69.83	\$ 72.82	\$ 2.300	3.03%	3.29%	3.16%
Average	\$ 74.69	\$ 68.59	\$ 71.64		3.08%	3.35%	3.21%

MDU Resources Group, Inc.
 NDPSC Case No. PU-16-666

Sempra Energy

Jan-17	\$ 104.25	\$ 99.71	\$ 101.98	\$ 3.020	2.90%	3.03%	2.96%
Dec-16	\$ 104.70	\$ 98.12	\$ 101.41	\$ 3.020	2.88%	3.08%	2.98%
Nov-16	\$ 107.10	\$ 92.95	\$ 100.02	\$ 3.020	2.82%	3.25%	3.02%
Oct-16	\$ 109.42	\$ 101.70	\$ 105.56	\$ 3.020	2.76%	2.97%	2.86%
Sep-16	\$ 111.40	\$ 102.15	\$ 106.78	\$ 3.020	2.71%	2.96%	2.83%
Aug-16	\$ 111.96	\$ 103.62	\$ 107.79	\$ 3.020	2.70%	2.91%	2.80%
Average	\$ 108.14	\$ 99.71	\$ 103.92		2.79%	3.03%	2.91%

Southern Co.

Jan-17	\$ 49.85	\$ 48.19	\$ 49.02	\$ 2.240	4.49%	4.65%	4.57%
Dec-16	\$ 49.64	\$ 46.20	\$ 47.92	\$ 2.240	4.51%	4.85%	4.67%
Nov-16	\$ 51.68	\$ 46.79	\$ 49.24	\$ 2.240	4.33%	4.79%	4.55%
Oct-16	\$ 52.23	\$ 49.14	\$ 50.68	\$ 2.240	4.29%	4.56%	4.42%
Sep-16	\$ 53.73	\$ 50.77	\$ 52.25	\$ 2.240	4.17%	4.41%	4.29%
Aug-16	\$ 53.80	\$ 50.00	\$ 51.90	\$ 2.240	4.16%	4.48%	4.32%
Average	\$ 51.82	\$ 48.52	\$ 50.17		4.33%	4.62%	4.47%

Vectren Corp.

Jan-17	\$ 55.20	\$ 51.50	\$ 53.35	\$ 1.680	3.04%	3.26%	3.15%
Dec-16	\$ 53.05	\$ 48.41	\$ 50.73	\$ 1.680	3.17%	3.47%	3.31%
Nov-16	\$ 51.88	\$ 46.52	\$ 49.20	\$ 1.680	3.24%	3.61%	3.41%
Oct-16	\$ 50.34	\$ 47.00	\$ 48.67	\$ 1.600	3.18%	3.40%	3.29%
Sep-16	\$ 52.04	\$ 47.87	\$ 49.96	\$ 1.600	3.07%	3.34%	3.20%
Aug-16	\$ 52.47	\$ 48.56	\$ 50.52	\$ 1.600	3.05%	3.29%	3.17%
Average	\$ 52.50	\$ 48.31	\$ 50.40		3.13%	3.40%	3.26%

WEC Energy Group

Jan-17	\$ 59.63	\$ 57.63	\$ 58.63	\$ 1.980	3.32%	3.44%	3.38%
Dec-16	\$ 59.12	\$ 54.96	\$ 57.04	\$ 1.980	3.35%	3.60%	3.47%
Nov-16	\$ 59.74	\$ 53.66	\$ 56.70	\$ 1.980	3.31%	3.69%	3.49%
Oct-16	\$ 60.13	\$ 56.46	\$ 58.30	\$ 1.980	3.29%	3.51%	3.40%
Sep-16	\$ 63.35	\$ 59.03	\$ 61.19	\$ 1.980	3.13%	3.35%	3.24%
Aug-16	\$ 65.24	\$ 59.32	\$ 62.28	\$ 1.980	3.03%	3.34%	3.18%
Average	\$ 61.20	\$ 56.84	\$ 59.02		3.24%	3.49%	3.36%

Xcel Energy

Jan-17	\$ 41.43	\$ 40.04	\$ 40.74	\$ 1.360	3.28%	3.40%	3.34%
Dec-16	\$ 41.20	\$ 38.22	\$ 39.71	\$ 1.360	3.30%	3.56%	3.42%
Nov-16	\$ 41.75	\$ 38.00	\$ 39.88	\$ 1.360	3.26%	3.58%	3.41%
Oct-16	\$ 41.80	\$ 39.08	\$ 40.44	\$ 1.360	3.25%	3.48%	3.36%
Sep-16	\$ 43.49	\$ 40.34	\$ 41.92	\$ 1.360	3.13%	3.37%	3.24%
Aug-16	\$ 44.13	\$ 41.07	\$ 42.60	\$ 1.360	3.08%	3.31%	3.19%
Average	\$ 42.30	\$ 39.46	\$ 40.88		3.22%	3.45%	3.33%

Source: Yahoo! Finance

Market Price to Book Values

Line	Company	Ticker	Aug 2016 to Jan 2017 Avg Price	2016 Book Value	M/B
1	ALLETE	ALE	61.50	37.90	1.62
2	Alliant Energy	LNT	37.72	18.05	2.09
3	Amer. Elec. Power	AEP	63.42	35.20	1.80
4	Ameren Corp.	AEE	50.24	29.60	1.70
5	Avista Corp.	AVA	40.84	25.55	1.60
6	Black Hills Corp.	BKH	60.04	30.10	1.99
7	CMS Energy	CMS	41.77	15.05	2.78
8	Consol. Edison	ED	74.09	46.80	1.58
9	DTE Energy	DTE	95.07	50.65	1.88
10	Edison Int'l	EIX	72.04	36.70	1.96
11	El Paso Electric	EE	45.90	26.15	1.76
12	Entergy Corp.	ETR	74.15	53.75	1.38
13	Exelon Corp.	EXC	34.02	27.90	1.22
14	IDACORP, Inc.	IDA	77.82	42.65	1.82
15	NorthWestern Corp.	NWE	57.24	34.40	1.66
16	OGE Energy Corp.	OGE	31.81	17.25	1.84
17	Otter Tail Corp.	OTTR	36.64	17.30	2.12
18	PG&E Corp.	PCG	61.12	35.20	1.74
19	Pinnacle West	PNW	75.92	42.60	1.78
20	PNM Resources, Inc.	PNM	32.87	22.70	1.45
21	Portland General	POR	42.73	26.20	1.63
22	PPL Corp.	PPL	34.32	14.56	2.36
23	Public Serv. Enterprise	PEG	42.59	26.00	1.64
24	SCANA Corp.	SCG	71.64	39.80	1.80
25	Sempra Energy	SRE	103.92	49.40	2.10
26	Southern Co.	SO	50.17	28.60	1.75
27	Vectren Corp.	VVC	50.40	21.55	2.34
28	WEC Energy Group	WEC	59.02	28.20	2.09
29	Xcel Energy	XEL	40.88	21.70	1.88

Source: August 2016 to January 2017 Average price from Yahoo! Finance.
2016 Estimated Book Values from Value Line reports dated
December 16, 2016 and January 27 and February 17, 2017.

**MDU Resources Group, Inc.
NDPSC Case No. PU-16-666**

Case No.: PU-16-666
Witness: RA Polich
Date: 24-Feb-17
Exhibit No.: PSC - 4
Page: 8 of 8

Line No.	Company	Ticker	Industry Name	Safety Rank	Long-term Issuer			Senior Unsecured			Note
					Moody's	S&P	Fitch	Moody's	S&P	Fitch	
Utilities With S&P CCR of BBB, BBB+, or A-											
1	ALLETE	ALE	Electric Util. (Central)	2	A3	BBB+					
2	Alliant Energy	LNT	Electric Util. (Central)	2	Baa1	A-		Baa1			
3	Amer. Elec. Power	AEP	Electric Util. (Central)	2		A-	BBB	Baa1	BBB+	BBB	
4	Ameren Corp.	AEE	Electric Util. (Central)	2	Baa1	BBB+	BBB+	Baa1	BBB	BBB+	
5	Avista Corp.	AVA	Electric Utility (West)	2	Baa1	BBB					
6	Black Hills Corp.	BKH	Electric Utility (West)	2	Baa2	BBB	BBB+	Baa2	BBB	BBB+	
7	CMS Energy	CMS	Electric Util. (Central)	2		BBB+	BBB	Baa2	BBB	BBB	
8	Consol. Edison	ED	Electric Utility (East)	1	A3	A-	BBB+	A3	BBB+	BBB+	
9	DTE Energy	DTE	Electric Util. (Central)	2		BBB+	BBB+	Baa1	BBB	BBB+	
10	Edison Int'l	EIX	Electric Utility (West)	2	A3	BBB+	A-	A3	BBB	A-	
11	El Paso Electric	EE	Electric Utility (West)	2	Baa1	BBB		Baa1	BBB		
12	Entergy Corp.	ETR	Electric Util. (Central)	3	Baa3	BBB+		Baa3	BBB		
13	Exelon Corp.	EXC	Electric Utility (East)	3	Baa2	BBB	BBB	Baa2	BBB-	BBB	
14	IDACORP, Inc.	IDA	Electric Utility (West)	2	Baa1	BBB					
15	NorthWestern Corp.	NWE	Electric Utility (West)	3		BBB	BBB+	A3	BBB	A-	
16	OGE Energy Corp.	OGE	Electric Util. (Central)	2		A-	A-	A3	BBB+	A-	
17	Otter Tail Corp.	OTTR	Electric Util. (Central)	2		BBB	BBB-		BBB-	BBB-	
18	PG&E Corp.	PCG	Electric Utility (West)	3	Baa1	BBB+	A-	Baa1	BBB	A-	
19	Pinnacle West	PNW	Electric Utility (West)	1	A3	A-	A-	A3			
20	PNM Resources, Inc.	PNM	Electric Utility (West)	3	Baa3	BBB+					
21	Portland General	POR	Electric Utility (West)	2	A3	BBB					
22	PPL Corp.	PPL	Electric Utility (East)	2	Baa2	A-					
23	Public Serv. Enterprise	PEG	Electric Utility (East)	1		BBB+	BBB+	Baa2		BBB+	
24	SCANA Corp.	SCG	Electric Utility (East)	2	Baa3	BBB+	BBB-	Baa3	BBB	BBB-	
25	Sempra Energy	SRE	Electric Utility (West)	2	Baa1	BBB+	BBB+	Baa1	BBB+	BBB+	
26	Southern Co.	SO	Electric Utility (East)	2		A-	A-	Baa2	BBB+	A-	
27	Vectren Corp.	VVC	Electric Util. (Central)	2		A-					
28	WEC Energy Group	WEC	Electric Util. (Central)	1	A3	A-	BBB+	A3	BBB+	BBB+	
29	Xcel Energy	XEL	Electric Utility (West)	1	A3	A-	BBB+	A3	BBB+	BBB+	
Utilities Meeting the Ratings Screens But Eliminated For Other Reasons											
30	Avangrid, Inc.	AGR	Electric Utility (East)	2	Baa1	BBB+	BBB+			BBB+	Foreign control & other
31	CenterPoint Energy	CNP	Electric Util. (Central)	3	Baa1	A-	BBB	Baa1	BBB+	BBB	M&A activity
32	Dominion Resources	D	Electric Utility (East)	2		BBB+	BBB+	Baa2	BBB	BBB+	M&A activity
33	Duke Energy	DUK	Electric Utility (East)	2	Baa1	A-	BBB+	Baa1	BBB+	BBB+	M&A activity
34	G't Plains Energy	GXP	Electric Util. (Central)	3		BBB+		Baa2	BBB		M&A activity
35	NextEra Energy	NEE	Electric Utility (East)	2	Baa1	A-	A-		BBB		M&A activity
36	Westar Energy	WR	Electric Util. (Central)	2	Baa1	BBB+					M&A activity
Utilities Eliminated By the Credit Ratings Screen											
37	Eversource Energy	ES	Electric Utility (East)	1	Baa1	A	BBB+	Baa1	A-	BBB+	
38	FirstEnergy Corp.	FE	Electric Utility (East)	3	Baa3	BBB-	BBB-	Baa3	BB+	BBB-	
39	Hawaiian Elec.	HE	Electric Utility (West)	2		BBB-	BBB			BBB	M&A activity
40	MGE Energy, Inc.	MGEE	Electric Util. (Central)	1							No ratings
41	MDU Resources Group	MDU				BBB+	BBB+			A-	