

SUMMARY OF ROE ANALYSES RESULTS<sup>1</sup>

<b>Constant Growth DCF - Earnings Growth</b>			
	Mean Low	Mean	Mean High
30-Day Average	9.25%	9.43%	10.02%
90-Day Average	9.29%	9.32%	9.56%
180-Day Average	9.66%	9.53%	9.34%
Constant Growth Average	9.40%	9.42%	9.64%
<b>Constant Growth DCF - Earnings &amp; Retention Growth</b>			
	Mean Low	Mean	Mean High
30-Day Average	8.27%	9.04%	10.31%
90-Day Average	9.15%	8.86%	9.85%
180-Day Average	9.05%	8.63%	9.62%
Constant Growth Average	8.82%	8.84%	9.93%
<b>CAPM</b>			
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
Bloomberg Beta	11.00%	11.06%	11.32%
Value Line Beta	9.54%	9.65%	10.07%
<b>Treasury Yield Plus Risk Premium</b>			
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
Risk Premium Analysis	9.06%	9.22%	9.82%
Risk Premium Mean Result	9.37%		

**Notes:**

[1] The analytical results included in the table reflect the results of the Constant Growth analysis excluding the results for individual companies that did not meet the minimum threshold of 7 percent.

30-DAY CONSTANT GROWTH DCF -- PSNH PROXY GROUP

										All Proxy Group			With Exclusions		
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.47	\$55.35	4.46%	4.60%	5.50%	7.00%	NA%	6.25%	10.09%	10.85%	11.62%	10.09%	10.85%	11.62%
Alliant Energy Corporation	LNT	\$1.52	\$48.09	3.16%	3.25%	6.50%	5.65%	5.50%	5.88%	8.75%	9.14%	9.76%	8.75%	9.14%	9.76%
Avangrid, Inc.	AGR	\$1.76	\$42.61	4.13%	4.25%	6.00%	6.30%	5.50%	5.93%	9.74%	10.19%	10.56%	9.74%	10.19%	10.56%
FirstEnergy Corporation	FE	\$1.56	\$41.53	3.76%	3.92%	8.50%	Negative	NA%	8.50%	12.42%	12.42%	12.42%	12.42%	12.42%	12.42%
Hawaiian Electric Industries, Inc.	HE	\$1.32	\$38.46	3.43%	3.48%	3.50%	3.30%	1.70%	2.83%	5.16%	6.31%	6.99%			
NorthWestern Corporation	NWE	\$2.40	\$57.75	4.16%	4.22%	2.50%	3.66%	3.40%	3.19%	6.71%	7.41%	7.89%		7.41%	7.89%
Portland General Electric Company	POR	\$1.54	\$45.18	3.41%	3.48%	4.00%	4.15%	5.30%	4.48%	7.48%	7.97%	8.80%	7.48%	7.97%	8.80%
PPL Corporation	PPL	\$1.66	\$25.55	6.50%	6.55%	2.50%	0.50%	NA%	1.50%	7.01%	8.05%	9.08%	7.01%	8.05%	9.08%
Mean				4.13%	4.22%	4.88%	4.37%	4.28%	4.82%	8.42%	9.04%	9.64%	9.25%	9.43%	10.02%

Notes:

- [1] Source: Bloomberg Professional.  
[2] Source: Bloomberg Professional, equals 30-day average as of May 29, 2020  
[3] Equals [1] / [2]  
[4] Equals [3] x (1 + 0.50 x [8])  
[5] Source: Value Line  
[6] Source: Yahoo! Finance  
[7] Source: Zacks  
[8] Equals Average ([5], [6], [7])  
[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])  
[10] Equals [4] + [8]  
[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])  
[12] Equals [9] if greater than 7.00%  
[13] Equals [10] if greater than 7.00%  
[14] Equals [11] if greater than 7.00%

90-DAY CONSTANT GROWTH DCF -- PSNH PROXY GROUP

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group		With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.47	\$65.91	3.75%	3.86%	5.50%	7.00%	NA%	6.25%	9.35%	10.11%	10.88%	9.35%	10.11%	10.88%
Alliant Energy Corporation	LNT	\$1.52	\$51.84	2.93%	3.02%	6.50%	5.65%	5.50%	5.88%	8.51%	8.90%	9.53%	8.51%	8.90%	9.53%
Avangrid, Inc.	AGR	\$1.76	\$46.81	3.76%	3.87%	6.00%	6.30%	5.50%	5.93%	9.36%	9.80%	10.18%	9.36%	9.80%	10.18%
FirstEnergy Corporation	FE	\$1.56	\$44.08	3.54%	3.69%	8.50%	Negative	NA%	8.50%	12.19%	12.19%	12.19%	12.19%	12.19%	12.19%
Hawaiian Electric Industries, Inc.	HE	\$1.32	\$43.16	3.06%	3.10%	3.50%	3.30%	1.70%	2.83%	4.78%	5.94%	6.61%			
NorthWestern Corporation	NWE	\$2.40	\$65.27	3.68%	3.74%	2.50%	3.66%	3.40%	3.19%	6.22%	6.92%	7.40%			7.40%
Portland General Electric Company	POR	\$1.54	\$51.56	2.99%	3.05%	4.00%	4.15%	5.30%	4.48%	7.05%	7.54%	8.37%	7.05%	7.54%	8.37%
PPL Corporation	PPL	\$1.66	\$28.59	5.81%	5.85%	2.50%	0.50%	NA%	1.50%	6.32%	7.35%	8.38%		7.35%	8.38%
Mean				3.69%	3.77%	4.88%	4.37%	4.28%	4.82%	7.97%	8.59%	9.19%	9.29%	9.32%	9.56%

Notes:

- [1] Source: Bloomberg Professional.  
[2] Source: Bloomberg Professional, equals 90-day average as of May 29, 2020  
[3] Equals [1] / [2]  
[4] Equals [3] x (1 + 0.50 x [8])  
[5] Source: Value Line  
[6] Source: Yahoo! Finance  
[7] Source: Zacks  
[8] Equals Average ([5], [6], [7])  
[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])  
[10] Equals [4] + [8]  
[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])  
[12] Equals [9] if greater than 7.00%  
[13] Equals [10] if greater than 7.00%  
[14] Equals [11] if greater than 7.00%

180-DAY CONSTANT GROWTH DCF -- PSNH PROXY GROUP

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group		With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.47	\$74.56	3.31%	3.42%	5.50%	7.00%	NA%	6.25%	8.90%	9.67%	10.43%	8.90%	9.67%	10.43%
Alliant Energy Corporation	LNT	\$1.52	\$52.63	2.89%	2.97%	6.50%	5.65%	5.50%	5.88%	8.47%	8.86%	9.48%	8.47%	8.86%	9.48%
Avangrid, Inc.	AGR	\$1.76	\$48.50	3.63%	3.74%	6.00%	6.30%	5.50%	5.93%	9.23%	9.67%	10.04%	9.23%	9.67%	10.04%
FirstEnergy Corporation	FE	\$1.56	\$45.97	3.39%	3.54%	8.50%	Negative	NA%	8.50%	12.04%	12.04%	12.04%	12.04%	12.04%	12.04%
Hawaiian Electric Industries, Inc.	HE	\$1.32	\$44.09	2.99%	3.04%	3.50%	3.30%	1.70%	2.83%	4.72%	5.87%	6.55%			
NorthWestern Corporation	NWE	\$2.40	\$68.84	3.49%	3.54%	2.50%	3.66%	3.40%	3.19%	6.03%	6.73%	7.21%			7.21%
Portland General Electric Company	POR	\$1.54	\$53.79	2.86%	2.93%	4.00%	4.15%	5.30%	4.48%	6.92%	7.41%	8.24%		7.41%	8.24%
PPL Corporation	PPL	\$1.66	\$31.05	5.35%	5.39%	2.50%	0.50%	NA%	1.50%	5.86%	6.89%	7.91%			7.91%
Mean				3.49%	3.57%	4.88%	4.37%	4.28%	4.82%	7.77%	8.39%	8.99%	9.66%	9.53%	9.34%

Notes:

- [1] Source: Bloomberg Professional.  
[2] Source: Bloomberg Professional, equals 180-day average as of May 29, 2020  
[3] Equals [1] / [2]  
[4] Equals [3] x (1 + 0.50 x [8])  
[5] Source: Value Line  
[6] Source: Yahoo! Finance  
[7] Source: Zacks  
[8] Equals Average ([5], [6], [7])  
[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7])  
[10] Equals [4] + [8]  
[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7])  
[12] Equals [9] if greater than 7.00%  
[13] Equals [10] if greater than 7.00%  
[14] Equals [11] if greater than 7.00%

RETENTION GROWTH

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
Company	Ticker	All Dividends to Net Profit Projection Year 1	All Dividends to Net Profit Projection Year 2	All Dividends to Net Profit Projection Years 3-5	Average Retention Ratio	Return on Common Equity Projection Year 1	Return on Common Equity Projection Year 2	Return on Common Equity Projection Years 3-5	Average Return on Common Equity	B x R	Common Shares Outstanding Year 0	Common Shares Outstanding Years 3-5	Common Shares Outstanding Growth Rate	Price Projection Years 3-5 High	Price Projection Years 3-5 Low	Price Projection Years 3-5 Mid	Projected Book Value per Share Years 3-5	Market-to-Book Ratio	S	V	S x V	BR + SV
ALLETE, Inc.	ALE	69.00%	68.00%	67.00%	32.00%	7.50%	8.00%	8.50%	8.00%	2.56%	51.70	53.00	0.50%	\$ 90.00	\$ 65.00	\$ 77.50	52.50	1.48	0.74%	32.26%	0.24%	2.80%
Alliant Energy Corporation	LNT	63.00%	64.00%	67.00%	35.33%	10.50%	10.00%	10.50%	10.33%	3.65%	245.02	260.00	1.19%	\$ 55.00	\$ 40.00	\$ 47.50	28.80	1.65	1.97%	39.37%	0.78%	4.43%
Avangrid, Inc.	AGR	81.00%	76.00%	72.00%	23.67%	4.50%	4.50%	5.50%	4.83%	1.14%	309.01	309.00	0.00%	\$ 55.00	\$ 40.00	\$ 47.50	52.50	0.90	0.00%	-10.53%	0.00%	1.14%
FirstEnergy Corporation	FE	85.00%	58.00%	60.00%	32.33%	14.00%	19.00%	15.50%	16.17%	5.23%	540.65	575.00	1.24%	\$ 60.00	\$ 45.00	\$ 52.50	20.25	2.59	3.21%	61.43%	1.97%	7.20%
Hawaiian Electric Industries, Inc.	HE	67.00%	67.00%	71.00%	31.67%	9.00%	9.00%	9.00%	9.00%	2.85%	108.97	114.00	0.91%	\$ 50.00	\$ 35.00	\$ 42.50	25.00	1.70	1.54%	41.18%	0.63%	3.48%
NorthWestern Corporation	NWE	69.00%	70.00%	70.00%	30.33%	8.50%	8.50%	8.50%	8.50%	2.58%	50.45	53.00	0.99%	\$ 85.00	\$ 65.00	\$ 75.00	45.75	1.64	1.62%	39.00%	0.63%	3.21%
Portland General Electric Company	POR	64.00%	64.00%	67.00%	35.00%	8.50%	8.50%	9.00%	8.67%	3.03%	89.39	90.00	0.14%	\$ 60.00	\$ 45.00	\$ 52.50	33.75	1.56	0.21%	35.71%	0.08%	3.11%
PPL Corporation	PPL	69.00%	68.00%	67.00%	32.00%	13.50%	13.00%	12.50%	13.00%	4.16%	767.23	780.00	0.33%	\$ 45.00	\$ 35.00	\$ 40.00	21.25	1.88	0.62%	46.88%	0.29%	4.45%
Mean																						3.73%

Notes:  
[1] Source: Value Line  
[2] Source: Value Line  
[3] Source: Value Line  
[4] Equals 1 - Average ([1], [2], [3])  
[5] Source: Value Line  
[6] Source: Value Line  
[7] Source: Value Line  
[8] Equals Average ([5], [6], [7])  
[9] Equals [4] x [8]  
[10] Source: Value Line  
[11] Source: Value Line  
[12] Equals ([11] / [12]) ^ 0.2 - 1  
[13] Source: Value Line  
[14] Source: Value Line  
[15] Equals Average ([13], [14])  
[16] Source: Value Line  
[17] Equals [15] / [16]  
[18] Equals [12] x [17]  
[19] Equals 1 - (1 / [17])  
[20] Equals [18] x [19]  
[21] Equals [9] + [20]

30-DAY CONSTANT GROWTH DCF -- PSNH PROXY GROUP

All Proxy Group																With Exclusions	
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Retention Growth Rate	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE	
ALLETE, Inc.	ALE	\$2.47	\$55.35	4.46%	4.58%	5.50%	7.00%	NA%	2.80%	5.10%	7.32%	9.68%	11.62%	7.32%	9.68%	11.62%	
Alliant Energy Corporation	LNT	\$1.52	\$48.09	3.16%	3.25%	6.50%	5.65%	5.50%	4.43%	5.52%	7.66%	8.77%	9.76%	7.66%	8.77%	9.76%	
Avangrid, Inc.	AGR	\$1.76	\$42.61	4.13%	4.23%	6.00%	6.30%	5.50%	1.14%	4.74%	5.30%	8.96%	10.56%		8.96%	10.56%	
FirstEnergy Corporation	FE	\$1.56	\$41.53	3.76%	3.90%	8.50%	Negative	NA%	7.20%	7.85%	11.09%	11.75%	12.42%	11.09%	11.75%	12.42%	
Hawaiian Electric Industries, Inc.	HE	\$1.32	\$38.46	3.43%	3.48%	3.50%	3.30%	1.70%	3.48%	3.00%	5.16%	6.48%	6.99%				
NorthWestern Corporation	NWE	\$2.40	\$57.75	4.16%	4.22%	2.50%	3.66%	3.40%	3.21%	3.19%	6.71%	7.42%	7.89%		7.42%	7.89%	
Portland General Electric Company	POR	\$1.54	\$45.18	3.41%	3.48%	4.00%	4.15%	5.30%	3.11%	4.14%	6.57%	7.62%	8.80%		7.62%	8.80%	
PPL Corporation	PPL	\$1.66	\$25.55	6.50%	6.58%	2.50%	0.50%	NA%	4.45%	2.48%	7.01%	9.06%	11.09%	7.01%	9.06%	11.09%	
Mean				4.13%	4.21%	4.88%	4.37%	4.28%	3.73%	4.50%	7.10%	8.72%	9.89%	8.27%	9.04%	10.31%	

Notes:

- [1] Source: Bloomberg Professional.  
[2] Source: Bloomberg Professional, equals 30-day average as of May 29, 2020  
[3] Equals [1] / [2]  
[4] Equals [3] x (1 + 0.50 x [9])  
[5] Source: Value Line  
[6] Source: Yahoo! Finance  
[7] Source: Zacks  
[8] Source: Attachment AEB-Supplemental-3  
[9] Equals Average ([5], [6], [7], [8])  
[10] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7], [8]) + Minimum ([5], [6], [7], [8])  
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[13] Equals [10] if greater than 7.00%  
[14] Equals [11] if greater than 7.00%  
[15] Equals [12] if greater than 7.00%

90-DAY CONSTANT GROWTH DCF -- PSNH PROXY GROUP																
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group			With Exclusions		
							Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Retention Growth Rate	Average Growth Rate	[10]	[11]	[12]	[13]	[14]	[15]
Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth					Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.47	\$65.91	3.75%	3.84%	5.50%	7.00%	NA%	2.80%	5.10%	6.60%	8.94%	10.88%		8.94%	10.88%
Alliant Energy Corporation	LNT	\$1.52	\$51.84	2.93%	3.01%	6.50%	5.65%	5.50%	4.43%	5.52%	7.42%	8.53%	9.53%	7.42%	8.53%	9.53%
Avangrid, Inc.	AGR	\$1.76	\$46.81	3.76%	3.85%	6.00%	6.30%	5.50%	1.14%	4.74%	4.93%	8.58%	10.18%		8.58%	10.18%
FirstEnergy Corporation	FE	\$1.56	\$44.08	3.54%	3.68%	8.50%	Negative	NA%	7.20%	7.85%	10.87%	11.53%	12.19%	10.87%	11.53%	12.19%
Hawaiian Electric Industries, Inc.	HE	\$1.32	\$43.16	3.06%	3.10%	3.50%	3.30%	1.70%	3.48%	3.00%	4.78%	6.10%	6.61%			
NorthWestern Corporation	NWE	\$2.40	\$65.27	3.68%	3.74%	2.50%	3.66%	3.40%	3.21%	3.19%	6.22%	6.93%	7.40%			7.40%
Portland General Electric Company	POR	\$1.54	\$51.56	2.99%	3.05%	4.00%	4.15%	5.30%	3.11%	4.14%	6.14%	7.19%	8.37%		7.19%	8.37%
PPL Corporation	PPL	\$1.66	\$28.59	5.81%	5.88%	2.50%	0.50%	NA%	4.45%	2.48%	6.32%	8.36%	10.39%		8.36%	10.39%
Mean				3.69%	3.77%	4.88%	4.37%	4.28%	3.73%	4.50%	6.66%	8.27%	9.44%	9.15%	8.86%	9.85%

Notes:

- [1] Source: Bloomberg Professional.  
[2] Source: Bloomberg Professional, equals 90-day average as of May 29, 2020  
[3] Equals [1] / [2]  
[4] Equals [3] x (1 + 0.50 x [9])  
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[8] Source: Attachment AEB-Supplemental-3  
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[11] Equals [4] + [9]  
[12] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7], [8]) + Maximum ([5], [6], [7], [8])  
[13] Equals [10] if greater than 7.00%  
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[15] Equals [12] if greater than 7.00%

180-DAY CONSTANT GROWTH DCF -- PSNH PROXY GROUP

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group			With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Retention Growth Rate	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
ALLETE, Inc.	ALE	\$2.47	\$74.56	3.31%	3.40%	5.50%	7.00%	NA%	2.80%	5.10%	6.16%	8.50%	10.43%		8.50%	10.43%
Alliant Energy Corporation	LNT	\$1.52	\$52.63	2.89%	2.97%	6.50%	5.65%	5.50%	4.43%	5.52%	7.38%	8.49%	9.48%	7.38%	8.49%	9.48%
Avangrid, Inc.	AGR	\$1.76	\$48.50	3.63%	3.71%	6.00%	6.30%	5.50%	1.14%	4.74%	4.79%	8.45%	10.04%		8.45%	10.04%
FirstEnergy Corporation	FE	\$1.56	\$45.97	3.39%	3.53%	8.50%	Negative	NA%	7.20%	7.85%	10.72%	11.38%	12.04%	10.72%	11.38%	12.04%
Hawaiian Electric Industries, Inc.	HE	\$1.32	\$44.09	2.99%	3.04%	3.50%	3.30%	1.70%	3.48%	3.00%	4.72%	6.03%	6.55%			
NorthWestern Corporation	NWE	\$2.40	\$68.84	3.49%	3.54%	2.50%	3.66%	3.40%	3.21%	3.19%	6.03%	6.73%	7.21%			7.21%
Portland General Electric Company	POR	\$1.54	\$53.79	2.86%	2.92%	4.00%	4.15%	5.30%	3.11%	4.14%	6.02%	7.06%	8.24%		7.06%	8.24%
PPL Corporation	PPL	\$1.66	\$31.05	5.35%	5.41%	2.50%	0.50%	NA%	4.45%	2.48%	5.86%	7.90%	9.92%		7.90%	9.92%
Mean				3.49%	3.57%	4.88%	4.37%	4.28%	3.73%	4.50%	6.46%	8.07%	9.24%	9.05%	8.63%	9.62%

Notes:

- [1] Source: Bloomberg Professional.  
[2] Source: Bloomberg Professional, equals 180-day average as of May 29, 2020  
[3] Equals [1] / [2]  
[4] Equals [3] x (1 + 0.50 x [9])  
[5] Source: Value Line  
[6] Source: Yahoo! Finance  
[7] Source: Zacks  
[8] Source: Attachment AEB-Supplemental-3  
[9] Equals Average ([5], [6], [7], [8])  
[10] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7], [8]) + Minimum ([5], [6], [7], [8])  
[11] Equals [4] + [9]  
[12] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7], [8]) + Maximum ([5], [6], [7], [8])  
[13] Equals [10] if greater than 7.00%  
[14] Equals [11] if greater than 7.00%  
[15] Equals [12] if greater than 7.00%



BETA  
AS OF MAY 29, 2020

		[1]	[2]
Proxy Group		Bloomberg	Value Line
ALLETE, Inc.	ALE	0.82	0.60
Alliant Energy Corporation	LNT	0.81	0.55
Avangrid, Inc.	AGR	0.73	0.80
FirstEnergy Corporation	FE	0.80	0.85
Hawaiian Electric Industries, Inc.	HE	0.71	0.55
NorthWestern Corporation	NWE	0.90	0.55
Portland General Electric Company	POR	0.82	0.55
PPL Corporation	PPL	0.89	1.05
Mean		0.809	0.688

Notes:

[1] Source: Bloomberg Professional, May 29, 2020

[2] Source: Value Line; March 13, 2020; April 24, 2020; May 15, 2020

CAPITAL ASSET PRICING MODEL

	[4]	[5]	[6]	[7]	[8]
	Risk-Free Rate ( <i>R<sub>f</sub></i> )	Beta ( <i>β</i> )	Market Return ( <i>R<sub>m</sub></i> )	Market Risk Premium ( <i>R<sub>m</sub> - R<sub>f</sub></i> )	ROE ( <i>K</i> )
Proxy Group Average Bloomberg Beta					
Current 30-day average of 30-year U.S. Treasury bond yield [1]	1.33%	0.809	13.28%	11.95%	11.00%
Near-term projected 30-year U.S. Treasury bond yield (Q3 2020 - Q3 2021) [2]	1.68%	0.809	13.28%	11.60%	11.06%
Projected 30-year U.S. Treasury bond yield (2022 - 2026) [3]	3.00%	0.809	13.28%	10.28%	11.32%
				MEAN	11.13%
Proxy Group Average Value Line Beta					
Current 30-day average of 30-year U.S. Treasury bond yield [1]	1.33%	0.688	13.28%	11.95%	9.54%
Near-term projected 30-year U.S. Treasury bond yield (Q3 2020 - Q3 2021) [2]	1.68%	0.688	13.28%	11.60%	9.65%
Projected 30-year U.S. Treasury bond yield (2022 - 2026) [3]	3.00%	0.688	13.28%	10.28%	10.07%
				MEAN	9.75%

Notes:

- [1] Source: Bloomberg Professional, 30-day average as of May 29, 2020  
[2] Source: Blue Chip Financial Forecasts, Vol. 39, No. 6, June 1, 2020, at 2  
[3] Source: Blue Chip Financial Forecasts, Vol. 39, No. 6, June 1, 2020, at 14  
[4] See Notes [1], [2] and [3]  
[5] Source: Attachment AEB-Supplemental-5  
[6] Source: Attachment AEB-Supplemental-6, at 2  
[7] Equals [6] - [4]  
[8] Equals [4] + ([5] x [7])

MARKET RISK PREMIUM DERIVED FROM ANALYSTS LONG-TERM GROWTH ESTIMATES

[9] Estimated Weighted Average Dividend Yield	1.86%
[10] Estimated Weighted Average Long-Term Growth Rate	11.32%
[11] S&P 500 Estimated Required Market Return	13.28%
[12] Risk-Free Rate	1.33% 1.68% 3.00%
[13] Implied Market Risk Premium	11.95% 11.60% 10.28%

STANDARD AND POOR'S 500 INDEX

Name	Ticker	[14]	[15]	[16]	[17]	[18]
		Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
LyondellBasell Industries NV	LYB	0.08%	6.40%	0.01%	5.50%	0.00%
American Express Co	AXP	0.30%	1.77%	0.01%	7.04%	0.02%
Verizon Communications Inc	VZ	0.89%	4.40%	0.04%	2.63%	0.02%
Broadcom Inc	AVGO	0.44%	4.48%	0.02%	9.05%	0.04%
Boeing Co/The	BA	0.33%	n/a	n/a	118.28%	0.39%
Caterpillar Inc	CAT	0.25%	3.41%	0.01%	4.25%	0.01%
JPMorgan Chase & Co	JPM	1.15%	3.65%	0.04%	5.70%	0.07%
Chevron Corp	CVX	0.66%	5.54%	0.04%	38.90%	0.26%
Coca-Cola Co/The	KO	0.77%	3.48%	0.03%	2.76%	0.02%
AbbVie Inc	ABBV	0.62%	5.17%	0.03%	3.12%	0.02%
Walt Disney Co/The	DIS	0.82%	n/a	n/a	19.55%	0.16%
FleetCor Technologies Inc	FLT	0.08%	n/a	n/a	13.02%	0.01%
Extra Space Storage Inc	EXR	0.05%	3.65%	0.00%	1.54%	0.00%
Exxon Mobil Corp	XOM	0.75%	7.51%	0.06%	16.84%	0.13%
Phillips 66	PSX	0.13%	4.58%	0.01%	5.22%	0.01%
General Electric Co	GE	0.22%	0.60%	0.00%	6.07%	0.01%
HP Inc	HPQ	0.08%	4.60%	0.00%	4.77%	0.00%
Home Depot Inc/The	HD	1.02%	2.43%	0.02%	9.12%	0.09%
International Business Machines Corp	IBM	0.43%	5.21%	0.02%	2.67%	0.01%
Concho Resources Inc	CXO	0.04%	1.42%	0.00%	12.60%	0.01%
Johnson & Johnson	JNJ	1.48%	2.75%	0.04%	5.47%	0.08%
McDonald's Corp	MCD	0.53%	2.67%	0.01%	6.95%	0.04%
Merck & Co Inc	MRK	0.77%	3.06%	0.02%	8.23%	0.06%
3M Co	MMM	0.34%	3.76%	0.01%	7.05%	0.02%
American Water Works Co Inc	AWK	0.09%	1.71%	0.00%	8.19%	0.01%
Bank of America Corp	BAC	0.82%	2.93%	0.02%	9.25%	0.08%
Baker Hughes Co	BKR	0.04%	4.41%	0.00%	17.77%	0.01%
Pfizer Inc	PFE	0.76%	4.27%	0.03%	4.70%	0.04%
Procter & Gamble Co/The	PG	1.11%	2.70%	0.03%	7.11%	0.08%
AT&T Inc	T	0.84%	6.71%	0.06%	4.48%	0.04%
Noble Energy Inc	NBL	0.02%	0.86%	0.00%	9.49%	0.00%
Travelers Cos Inc/The	TRV	0.11%	3.12%	0.00%	10.30%	0.01%
Raytheon Technologies Corp	RTX	0.37%	2.95%	0.01%	-4.34%	-0.02%
Analog Devices Inc	ADI	0.16%	2.20%	0.00%	12.13%	0.02%
Walmart Inc	WMT	1.34%	1.75%	0.02%	4.98%	0.07%
Cisco Systems Inc	CSCO	0.75%	3.09%	0.02%	5.38%	0.04%
Intel Corp	INTC	1.00%	2.14%	0.02%	5.93%	0.06%
General Motors Co	GM	0.15%	n/a	n/a	13.21%	0.02%
Microsoft Corp	MSFT	5.29%	1.12%	0.06%	13.74%	0.73%
Dollar General Corp	DG	0.19%	0.75%	0.00%	11.50%	0.02%
Cigna Corp	CI	0.28%	0.02%	0.00%	11.09%	0.03%
Kinder Morgan Inc	KMI	0.14%	6.68%	0.01%	4.55%	0.01%
Citigroup Inc	C	0.39%	4.14%	0.02%	-1.53%	-0.01%
American International Group Inc	AIG	0.10%	4.20%	0.00%	15.35%	0.02%
Honeywell International Inc	HON	0.39%	2.46%	0.01%	7.17%	0.03%
Altria Group Inc	MO	0.28%	8.56%	0.02%	6.05%	0.02%
HCA Healthcare Inc	HCA	0.14%	n/a	n/a	8.66%	0.01%
Under Armour Inc	UA	0.01%	n/a	n/a	18.10%	0.00%
International Paper Co	IP	0.05%	5.89%	0.00%	4.40%	0.00%
Hewlett Packard Enterprise Co	HPE	0.05%	4.89%	0.00%	1.92%	0.00%
Abbott Laboratories	ABT	0.63%	1.54%	0.01%	8.10%	0.05%
Aflac Inc	AFL	0.10%	3.03%	0.00%	0.11%	0.00%
Air Products and Chemicals Inc	APD	0.21%	2.19%	0.00%	11.98%	0.02%
Royal Caribbean Cruises Ltd	RCL	0.04%	n/a	n/a	-48.40%	-0.02%
American Electric Power Co Inc	AEP	0.16%	3.24%	0.01%	6.68%	0.01%
Hess Corp	HES	0.06%	2.06%	0.00%	-23.46%	-0.01%
Apache Corp	APA	0.02%	0.85%	0.00%	-18.00%	0.00%
Archer-Daniels-Midland Co	ADM	0.08%	3.70%	0.00%	9.10%	0.01%
Automatic Data Processing Inc	ADP	0.24%	2.50%	0.01%	12.30%	0.03%
Verisk Analytics Inc	VRSK	0.11%	0.63%	0.00%	9.18%	0.01%
AutoZone Inc	AZO	0.10%	n/a	n/a	8.43%	0.01%
Avery Dennison Corp	AVY	0.04%	2.06%	0.00%	4.50%	0.00%
MSCI Inc	MSCI	0.11%	0.81%	0.00%	11.75%	0.01%
Ball Corp	BLL	0.09%	0.84%	0.00%	6.07%	0.01%
Carrier Global Corp	CARR	0.00%	n/a	n/a	n/a	n/a
Bank of New York Mellon Corp/The	BK	0.13%	3.27%	0.00%	4.43%	0.01%
Otis Worldwide Corp	OTIS	0.09%	1.48%	0.00%	4.80%	0.00%
Baxter International Inc	BAX	0.18%	1.08%	0.00%	12.00%	0.02%
Becton Dickinson and Co	BDX	0.27%	1.28%	0.00%	8.32%	0.02%
Berkshire Hathaway Inc	BRK/B	0.98%	n/a	n/a	-3.10%	-0.03%
Best Buy Co Inc	BBY	0.08%	2.85%	0.00%	4.46%	0.00%
H&R Block Inc	HRB	0.01%	5.92%	0.00%	10.00%	0.00%
Boston Scientific Corp	BSX	0.21%	n/a	n/a	9.75%	0.02%
Bristol-Myers Squibb Co	BMJ	0.52%	2.99%	0.02%	11.35%	0.06%
Fortune Brands Home & Security Inc	FBHS	0.03%	1.56%	0.00%	6.39%	0.00%
Brown-Forman Corp	BF/B	0.08%	1.06%	0.00%	4.38%	0.00%
Cabot Oil & Gas Corp	COG	0.03%	2.03%	0.00%	23.75%	0.01%

STANDARD AND POOR'S 500 INDEX

		[14]	[15]	[16]	[17]	[18]
Name	Ticker	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Campbell Soup Co	CPB	0.06%	2.72%	0.00%	7.92%	0.00%
Kansas City Southern	KSU	0.05%	1.07%	0.00%	11.75%	0.01%
Hilton Worldwide Holdings Inc	HLT	0.09%	n/a	n/a	1.28%	0.00%
Carnival Corp	CCL	0.04%	n/a	n/a	-2.50%	0.00%
Qorvo Inc	QRVO	0.05%	n/a	n/a	11.91%	0.01%
CenturyLink Inc	CTL	0.04%	9.80%	0.00%	-1.33%	0.00%
UDR Inc	UDR	0.04%	3.79%	0.00%	6.13%	0.00%
Clorox Co/The	CLX	0.10%	2.16%	0.00%	5.12%	0.01%
Paycom Software Inc	PAYC	0.07%	n/a	n/a	19.70%	0.01%
CMS Energy Corp	CMS	0.07%	2.74%	0.00%	6.87%	0.00%
Newell Brands Inc	NWL	0.02%	6.87%	0.00%	-6.04%	0.00%
Colgate-Palmolive Co	CL	0.24%	2.41%	0.01%	4.61%	0.01%
Comerica Inc	CMA	0.02%	7.26%	0.00%	-0.20%	0.00%
IPG Photonics Corp	IPGP	0.00%	n/a	n/a	n/a	n/a
Conagra Brands Inc	CAG	0.06%	2.44%	0.00%	7.35%	0.00%
Consolidated Edison Inc	ED	0.10%	4.05%	0.00%	3.62%	0.00%
SL Green Realty Corp	SLG	0.01%	8.04%	0.00%	4.34%	0.00%
Corning Inc	GLW	0.07%	3.85%	0.00%	4.13%	0.00%
Cummins Inc	CMI	0.10%	3.07%	0.00%	3.26%	0.00%
Danaher Corp	DHR	0.45%	0.43%	0.00%	8.52%	0.04%
Target Corp	TGT	0.23%	2.22%	0.01%	8.43%	0.02%
Deere & Co	DE	0.18%	2.04%	0.00%	0.41%	0.00%
Dominion Energy Inc	D	0.28%	4.35%	0.01%	5.00%	0.01%
Dover Corp	DOV	0.05%	2.01%	0.00%	10.30%	0.01%
Alliant Energy Corp	LNT	0.05%	3.06%	0.00%	5.46%	0.00%
Duke Energy Corp	DUK	0.25%	4.33%	0.01%	4.60%	0.01%
Regency Centers Corp	REG	0.03%	5.24%	0.00%	5.68%	0.00%
Eaton Corp PLC	ETN	0.13%	3.44%	0.00%	9.03%	0.01%
Ecolab Inc	ECL	0.23%	0.89%	0.00%	6.90%	0.02%
PerkinElmer Inc	PKI	0.04%	0.28%	0.00%	7.18%	0.00%
Emerson Electric Co	EMR	0.14%	3.31%	0.00%	6.51%	0.01%
EOG Resources Inc	EOG	0.12%	2.90%	0.00%	-1.12%	0.00%
Aon PLC	AON	0.17%	0.89%	0.00%	11.05%	0.02%
Entergy Corp	ETR	0.08%	3.59%	0.00%	5.17%	0.00%
Equifax Inc	EFX	0.07%	1.01%	0.00%	7.41%	0.01%
IQVIA Holdings Inc	IQV	0.11%	n/a	n/a	11.20%	0.01%
Gartner Inc	IT	0.04%	n/a	n/a	12.50%	0.01%
FedEx Corp	FDX	0.13%	2.01%	0.00%	14.06%	0.02%
FMC Corp	FMC	0.05%	1.77%	0.00%	9.73%	0.00%
Ford Motor Co	F	0.09%	n/a	n/a	13.51%	0.01%
NextEra Energy Inc	NEE	0.48%	2.17%	0.01%	8.39%	0.04%
Franklin Resources Inc	BEN	0.04%	5.50%	0.00%	-6.79%	0.00%
Freeport-McMoRan Inc	FCX	0.05%	n/a	n/a	136.19%	0.07%
Gap Inc/The	GPS	0.01%	9.78%	0.00%	6.37%	0.00%
DexCom Inc	DXCM	0.13%	n/a	n/a	30.99%	0.04%
General Dynamics Corp	GD	0.16%	2.98%	0.00%	4.58%	0.01%
General Mills Inc	GIS	0.15%	3.07%	0.00%	5.87%	0.01%
Genuine Parts Co	GPC	0.05%	3.72%	0.00%	4.70%	0.00%
Atmos Energy Corp	ATO	0.05%	2.22%	0.00%	7.34%	0.00%
WW Grainger Inc	GWW	0.06%	1.88%	0.00%	9.47%	0.01%
Halliburton Co	HAL	0.04%	1.49%	0.00%	12.95%	0.01%
Harley-Davidson Inc	HOG	0.01%	0.35%	0.00%	2.10%	0.00%
L3Harris Technologies Inc	LHX	0.16%	1.73%	0.00%	16.64%	0.03%
Healthpeak Properties Inc	PEAK	0.05%	5.78%	0.00%	4.10%	0.00%
Fortive Corp	FTV	0.08%	0.45%	0.00%	8.67%	0.01%
Hershey Co/The	HSY	0.08%	2.26%	0.00%	6.83%	0.01%
Synchrony Financial	SYF	0.05%	4.21%	0.00%	-3.52%	0.00%
Hormel Foods Corp	HRL	0.10%	1.89%	0.00%	3.89%	0.00%
Arthur J Gallagher & Co	AJG	0.07%	1.90%	0.00%	7.76%	0.01%
Mondelez International Inc	MDLZ	0.29%	2.17%	0.01%	7.75%	0.02%
CenterPoint Energy Inc	CNP	0.03%	3.32%	0.00%	-1.62%	0.00%
Humana Inc	HUM	0.20%	0.62%	0.00%	11.56%	0.02%
Willis Towers Watson PLC	WLTW	0.10%	1.34%	0.00%	10.00%	0.01%
Illinois Tool Works Inc	ITW	0.21%	2.49%	0.01%	5.27%	0.01%
CDW Corp/DE	CDW	0.06%	1.35%	0.00%	13.10%	0.01%
Trane Technologies PLC	TT	0.08%	2.33%	0.00%	3.16%	0.00%
Interpublic Group of Cos Inc/The	IPG	0.03%	5.84%	0.00%	0.19%	0.00%
International Flavors & Fragrances Inc	IFF	0.05%	2.27%	0.00%	7.30%	0.00%
Jacobs Engineering Group Inc	J	0.04%	0.89%	0.00%	7.25%	0.00%
Hanesbrands Inc	HBI	0.01%	5.83%	0.00%	0.84%	0.00%
Kellogg Co	K	0.09%	3.44%	0.00%	2.48%	0.00%
Broadridge Financial Solutions Inc	BR	0.05%	1.77%	0.00%	6.50%	0.00%
Perrigo Co PLC	PRGO	0.03%	1.62%	0.00%	2.00%	0.00%
Kimberly-Clark Corp	KMB	0.19%	3.01%	0.01%	4.36%	0.01%
Kimco Realty Corp	KIM	0.02%	n/a	n/a	4.10%	0.00%
Kohl's Corp	KSS	0.01%	n/a	n/a	4.83%	0.00%
Oracle Corp	ORCL	0.64%	1.80%	0.01%	10.33%	0.07%
Kroger Co/The	KR	0.10%	1.96%	0.00%	5.25%	0.01%
Leggett & Platt Inc	LEG	0.00%	5.03%	0.00%	n/a	n/a
Lennar Corp	LEN	0.06%	0.83%	0.00%	8.60%	0.01%
Eli Lilly and Co	LLY	0.56%	1.93%	0.01%	13.97%	0.08%
L Brands Inc	LB	0.02%	n/a	n/a	11.50%	0.00%
Charter Communications Inc	CHTR	0.43%	n/a	n/a	42.98%	0.19%
Lincoln National Corp	LNC	0.03%	4.12%	0.00%	9.00%	0.00%
Loews Corp	L	0.00%	0.74%	0.00%	n/a	n/a
Lowe's Cos Inc	LOW	0.37%	1.70%	0.01%	16.45%	0.06%
Host Hotels & Resorts Inc	HST	0.03%	6.48%	0.00%	-2.30%	0.00%
Xerox Holdings Corp	XRX	0.01%	5.92%	0.00%	0.50%	0.00%
IDEX Corp	IEX	0.05%	1.27%	0.00%	11.33%	0.01%
Marsh & McLennan Cos Inc	MMC	0.21%	1.70%	0.00%	9.60%	0.02%
Masco Corp	MAS	0.05%	1.16%	0.00%	9.56%	0.00%

STANDARD AND POOR'S 500 INDEX

		[14]	[15]	[16]	[17]	[18]
Name	Ticker	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
S&P Global Inc	SPGI	0.30%	0.81%	0.00%	8.90%	0.03%
Medtronic PLC	MDT	0.50%	2.36%	0.01%	6.80%	0.03%
CVS Health Corp	CVS	0.33%	3.04%	0.01%	7.36%	0.02%
DuPont de Nemours Inc	DD	0.14%	2.35%	0.00%	1.96%	0.00%
Micron Technology Inc	MU	0.20%	n/a	n/a	6.95%	0.01%
Motorola Solutions Inc	MSI	0.09%	1.83%	0.00%	8.85%	0.01%
Cboe Global Markets Inc	CBOE	0.04%	1.35%	0.00%	6.30%	0.00%
Mylan NV	MYL	0.04%	n/a	n/a	1.73%	0.00%
Laboratory Corp of America Holdings	LH	0.07%	n/a	n/a	4.89%	0.00%
Newmont Corp	NEM	0.18%	1.66%	0.00%	12.75%	0.02%
NIKE Inc	NKE	0.47%	0.98%	0.00%	11.12%	0.05%
NiSource Inc	NI	0.04%	3.45%	0.00%	4.62%	0.00%
Norfolk Southern Corp	NSC	0.18%	2.10%	0.00%	5.98%	0.01%
Principal Financial Group Inc	PFG	0.04%	5.69%	0.00%	0.63%	0.00%
Eversource Energy	ES	0.11%	2.64%	0.00%	6.64%	0.01%
Northrop Grumman Corp	NOC	0.21%	1.73%	0.00%	18.99%	0.04%
Wells Fargo & Co	WFC	0.42%	7.54%	0.03%	9.41%	0.04%
Nucor Corp	NUE	0.05%	3.77%	0.00%	5.25%	0.00%
PVH Corp	PVH	0.01%	n/a	n/a	2.90%	0.00%
Occidental Petroleum Corp	OXY	0.05%	0.29%	0.00%	12.20%	0.01%
Omnicom Group Inc	OMC	0.05%	4.67%	0.00%	0.90%	0.00%
ONEOK Inc	OKE	0.06%	9.88%	0.01%	6.38%	0.00%
Raymond James Financial Inc	RJF	0.04%	2.08%	0.00%	3.50%	0.00%
Parker-Hannifin Corp	PH	0.09%	1.92%	0.00%	9.49%	0.01%
Rollins Inc	ROL	0.00%	0.75%	0.00%	n/a	n/a
PPL Corp	PPL	0.08%	5.80%	0.00%	-0.37%	0.00%
ConocoPhillips	COP	0.00%	3.86%	0.00%	n/a	n/a
PulteGroup Inc	PHM	0.04%	1.40%	0.00%	6.49%	0.00%
Pinnacle West Capital Corp	PNW	0.03%	4.01%	0.00%	4.90%	0.00%
PNC Financial Services Group Inc/The	PNC	0.19%	4.00%	0.01%	-5.84%	-0.01%
PPG Industries Inc	PPG	0.09%	1.98%	0.00%	1.76%	0.00%
Progressive Corp/The	PGR	0.18%	0.51%	0.00%	6.00%	0.01%
Public Service Enterprise Group Inc	PEG	0.10%	3.73%	0.00%	4.43%	0.00%
Robert Half International Inc	RHI	0.02%	2.61%	0.00%	0.29%	0.00%
Edison International	EIX	0.09%	4.28%	0.00%	4.54%	0.00%
Schlumberger Ltd	SLB	0.10%	2.68%	0.00%	36.00%	0.04%
Charles Schwab Corp/The	SCHW	0.18%	1.98%	0.00%	4.50%	0.01%
Sherwin-Williams Co/The	SHW	0.20%	0.91%	0.00%	8.85%	0.02%
West Pharmaceutical Services Inc	WST	0.06%	0.30%	0.00%	9.60%	0.01%
JM Smucker Co/The	SJM	0.05%	3.02%	0.00%	1.62%	0.00%
Snap-on Inc	SNA	0.03%	3.30%	0.00%	4.06%	0.00%
AMETEK Inc	AME	0.08%	0.78%	0.00%	9.16%	0.01%
Southern Co/The	SO	0.23%	4.41%	0.01%	4.30%	0.01%
Truist Financial Corp	TFC	0.20%	4.71%	0.01%	2.10%	0.00%
Southwest Airlines Co	LUV	0.08%	n/a	n/a	-0.20%	0.00%
WR Berkley Corp	WRB	0.04%	0.76%	0.00%	12.40%	0.00%
Stanley Black & Decker Inc	SWK	0.07%	2.21%	0.00%	11.00%	0.01%
Public Storage	PSA	0.14%	3.89%	0.01%	3.74%	0.01%
Arista Networks Inc	ANET	0.07%	n/a	n/a	16.04%	0.01%
Sysco Corp	SY	0.11%	3.14%	0.00%	3.80%	0.00%
Corteva Inc	CTVA	0.08%	1.94%	0.00%	9.69%	0.01%
Texas Instruments Inc	TXN	0.41%	3.05%	0.01%	10.70%	0.04%
Textron Inc	TXT	0.03%	0.25%	0.00%	2.83%	0.00%
Thermo Fisher Scientific Inc	TMO	0.53%	0.25%	0.00%	8.30%	0.04%
Tiffany & Co	TIF	0.00%	1.81%	0.00%	n/a	n/a
TJX Cos Inc/The	TJX	0.24%	n/a	n/a	7.55%	0.02%
Globe Life Inc	GL	0.03%	0.94%	0.00%	4.90%	0.00%
Johnson Controls International plc	JCI	0.09%	3.28%	0.00%	9.10%	0.01%
Ulta Beauty Inc	ULTA	0.05%	n/a	n/a	15.68%	0.01%
Union Pacific Corp	UNP	0.44%	2.29%	0.01%	9.50%	0.04%
Keysight Technologies Inc	KEYS	0.08%	n/a	n/a	13.92%	0.01%
UnitedHealth Group Inc	UNH	1.10%	1.42%	0.02%	12.40%	0.14%
Unum Group	UNM	0.01%	7.16%	0.00%	9.00%	0.00%
Marathon Oil Corp	MRO	0.02%	n/a	n/a	-3.25%	0.00%
Varian Medical Systems Inc	VAR	0.04%	n/a	n/a	8.40%	0.00%
Ventas Inc	VTR	0.05%	8.82%	0.00%	-0.28%	0.00%
VF Corp	VFC	0.09%	3.32%	0.00%	8.80%	0.01%
Vornado Realty Trust	VNO	0.03%	6.93%	0.00%	4.66%	0.00%
Vulcan Materials Co	VMC	0.05%	1.26%	0.00%	14.00%	0.01%
Weyerhaeuser Co	WY	0.00%	n/a	n/a	n/a	n/a
Whirlpool Corp	WHR	0.03%	3.88%	0.00%	-3.07%	0.00%
Williams Cos Inc/The	WMB	0.10%	7.80%	0.01%	7.58%	0.01%
WEC Energy Group Inc	WEC	0.11%	2.70%	0.00%	6.46%	0.01%
Adobe Inc	ADBE	0.72%	n/a	n/a	18.00%	0.13%
AES Corp/The	AES	0.03%	4.54%	0.00%	6.99%	0.00%
Amgen Inc	AMGN	0.51%	2.81%	0.01%	8.56%	0.04%
Apple Inc	AAPL	5.34%	1.02%	0.05%	11.05%	0.59%
Autodesk Inc	ADSK	0.18%	n/a	n/a	31.35%	0.06%
Cintas Corp	CTAS	0.10%	1.01%	0.00%	12.00%	0.01%
Comcast Corp	CMCSA	0.70%	2.30%	0.02%	4.10%	0.03%
Molson Coors Beverage Co	TAP	0.03%	n/a	n/a	0.10%	0.00%
KLA Corp	KLAC	0.11%	1.92%	0.00%	10.58%	0.01%
Marriott International Inc/MD	MAR	0.12%	n/a	n/a	-1.62%	0.00%
McCormick & Co Inc/MD	MKC	0.08%	1.40%	0.00%	9.17%	0.01%
Nordstrom Inc	JWN	0.01%	n/a	n/a	6.00%	0.00%
PACCAR Inc	PCAR	0.10%	1.74%	0.00%	4.53%	0.00%
Costco Wholesale Corp	COST	0.52%	0.91%	0.00%	7.48%	0.04%
First Republic Bank/CA	FRC	0.07%	0.73%	0.00%	6.49%	0.00%
Stryker Corp	SYK	0.28%	1.16%	0.00%	8.10%	0.02%
Tyson Foods Inc	TSN	0.07%	2.68%	0.00%	2.78%	0.00%
Lamb Weston Holdings Inc	LW	0.03%	1.48%	0.00%	-1.85%	0.00%

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Name	Ticker	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Applied Materials Inc	AMAT	0.19%	1.58%	0.00%	15.32%	0.03%
American Airlines Group Inc	AAL	0.02%	n/a	n/a	-15.06%	0.00%
Cardinal Health Inc	CAH	0.06%	3.54%	0.00%	4.84%	0.00%
Cerner Corp	CERN	0.08%	0.99%	0.00%	11.91%	0.01%
Cincinnati Financial Corp	CINF	0.00%	4.01%	0.00%	n/a	n/a
ViacomCBS Inc	VIAC	0.05%	4.47%	0.00%	4.79%	0.00%
DR Horton Inc	DHI	0.08%	1.27%	0.00%	10.55%	0.01%
Flowserve Corp	FLS	0.01%	2.94%	0.00%	3.00%	0.00%
Electronic Arts Inc	EA	0.14%	n/a	n/a	8.09%	0.01%
Expeditors International of Washington Inc	EXPD	0.05%	1.38%	0.00%	9.25%	0.00%
Fastenal Co	FAST	0.09%	2.45%	0.00%	13.85%	0.01%
M&T Bank Corp	MTB	0.05%	4.06%	0.00%	0.41%	0.00%
Xcel Energy Inc	XEL	0.13%	2.60%	0.00%	5.89%	0.01%
Fiserv Inc	FISV	0.28%	n/a	n/a	13.89%	0.04%
Fifth Third Bancorp	FITB	0.05%	5.45%	0.00%	9.77%	0.01%
Gilead Sciences Inc	GILD	0.36%	3.59%	0.01%	-0.74%	0.00%
Hasbro Inc	HAS	0.04%	3.74%	0.00%	14.34%	0.01%
Huntington Bancshares Inc/OH	HBAN	0.04%	6.60%	0.00%	-9.27%	0.00%
Welltower Inc	WELL	0.08%	4.59%	0.00%	-1.18%	0.00%
Biogen Inc	BIIB	0.19%	n/a	n/a	1.98%	0.00%
Northern Trust Corp	NTRS	0.06%	3.45%	0.00%	7.55%	0.00%
Packaging Corp of America	PKG	0.04%	3.08%	0.00%	10.00%	0.00%
Paychex Inc	PAYX	0.10%	3.42%	0.00%	6.55%	0.01%
People's United Financial Inc	PBCT	0.02%	6.14%	0.00%	2.00%	0.00%
QUALCOMM Inc	QCOM	0.34%	3.25%	0.01%	17.10%	0.06%
Roper Technologies Inc	ROP	0.16%	0.52%	0.00%	12.33%	0.02%
Ross Stores Inc	ROST	0.13%	n/a	n/a	8.90%	0.01%
IDEXX Laboratories Inc	IDXX	0.10%	n/a	n/a	9.41%	0.01%
Starbucks Corp	SBUX	0.35%	2.09%	0.01%	13.16%	0.05%
KeyCorp	KEY	0.04%	6.24%	0.00%	3.36%	0.00%
Fox Corp	FOXA	0.04%	1.55%	0.00%	-3.73%	0.00%
Fox Corp	FOX	0.03%	1.57%	0.00%	-3.73%	0.00%
State Street Corp	STT	0.08%	3.33%	0.00%	8.95%	0.01%
Norwegian Cruise Line Holdings Ltd	NCLH	0.02%	n/a	n/a	-16.58%	0.00%
US Bancorp	USB	0.21%	4.59%	0.01%	6.43%	0.01%
AO Smith Corp	AOS	0.02%	2.03%	0.00%	8.00%	0.00%
NortonLifeLock Inc	NLOK	0.05%	2.30%	0.00%	7.50%	0.00%
T Rowe Price Group Inc	TROW	0.11%	2.93%	0.00%	0.76%	0.00%
Waste Management Inc	WM	0.17%	2.04%	0.00%	4.61%	0.01%
Constellation Brands Inc	STZ	0.11%	1.73%	0.00%	1.82%	0.00%
Xilinx Inc	XLNX	0.08%	1.67%	0.00%	8.20%	0.01%
DENTSPLY SIRONA Inc	XRAY	0.04%	0.85%	0.00%	-1.32%	0.00%
Zions Bancorp NA	ZION	0.02%	4.06%	0.00%	-5.06%	0.00%
Alaska Air Group Inc	ALK	0.02%	n/a	n/a	-19.37%	0.00%
Invesco Ltd	IVZ	0.01%	7.48%	0.00%	-9.60%	0.00%
Linde PLC	LIN	0.41%	1.88%	0.01%	9.50%	0.04%
Intuit Inc	INTU	0.29%	0.73%	0.00%	15.10%	0.04%
Morgan Stanley	MS	0.27%	3.12%	0.01%	-0.03%	0.00%
Microchip Technology Inc	MCHP	0.09%	1.54%	0.00%	12.40%	0.01%
Chubb Ltd	CB	0.21%	2.60%	0.01%	9.05%	0.02%
Hologic Inc	HOLX	0.05%	n/a	n/a	8.85%	0.00%
Citizens Financial Group Inc	CFG	0.04%	6.31%	0.00%	30.88%	0.01%
O'Reilly Automotive Inc	ORLY	0.12%	n/a	n/a	10.55%	0.01%
Allstate Corp/The	ALL	0.12%	2.18%	0.00%	7.00%	0.01%
FLIR Systems Inc	FLIR	0.02%	1.47%	0.00%	10.40%	0.00%
Equity Residential	EQR	0.09%	3.93%	0.00%	3.51%	0.00%
BorgWarner Inc	BWA	0.03%	2.03%	0.00%	6.87%	0.00%
Incyte Corp	INCY	0.08%	n/a	n/a	23.25%	0.02%
Simon Property Group Inc	SPG	0.07%	13.72%	0.01%	0.90%	0.00%
Eastman Chemical Co	EMN	0.04%	3.84%	0.00%	1.92%	0.00%
Twitter Inc	TWTR	0.10%	n/a	n/a	32.77%	0.03%
AvalonBay Communities Inc	AVB	0.09%	3.95%	0.00%	5.85%	0.01%
Prudential Financial Inc	PRU	0.09%	7.26%	0.01%	7.25%	0.01%
United Parcel Service Inc	UPS	0.27%	4.06%	0.01%	6.09%	0.02%
Apartment Investment and Management Co	AIV	0.02%	4.32%	0.00%	3.01%	0.00%
Walgreens Boots Alliance Inc	WBA	0.14%	4.24%	0.01%	1.47%	0.00%
STERIS PLC	STE	0.05%	0.89%	0.00%	10.10%	0.01%
McKesson Corp	MCK	0.10%	1.03%	0.00%	5.88%	0.01%
Lockheed Martin Corp	LMT	0.42%	2.45%	0.01%	7.85%	0.03%
AmerisourceBergen Corp	ABC	0.07%	1.76%	0.00%	12.18%	0.01%
Capital One Financial Corp	COF	0.12%	2.33%	0.00%	6.75%	0.01%
Waters Corp	WAT	0.05%	n/a	n/a	3.89%	0.00%
Dollar Tree Inc	DLTR	0.09%	n/a	n/a	8.68%	0.01%
Darden Restaurants Inc	DRI	0.04%	n/a	n/a	6.52%	0.00%
Dominos Pizza Inc	DPZ	0.06%	0.80%	0.00%	12.98%	0.01%
NVR Inc	NVR	0.05%	n/a	n/a	2.44%	0.00%
NetApp Inc	NTAP	0.04%	4.46%	0.00%	7.05%	0.00%
Citrix Systems Inc	CTXS	0.07%	0.95%	0.00%	9.33%	0.01%
DXC Technology Co	DXC	0.01%	n/a	n/a	-6.42%	0.00%
Old Dominion Freight Line Inc	ODFL	0.08%	0.35%	0.00%	8.74%	0.01%
DaVita Inc	DVA	0.04%	n/a	n/a	9.56%	0.00%
Hartford Financial Services Group Inc/The	HIG	0.05%	3.35%	0.00%	12.00%	0.01%
Iron Mountain Inc	IRM	0.03%	9.36%	0.00%	0.06%	0.00%
Estee Lauder Cos Inc/The	EL	0.17%	n/a	n/a	8.83%	0.02%
Cadence Design Systems Inc	CDNS	0.10%	n/a	n/a	11.09%	0.01%
Universal Health Services Inc	UHS	0.03%	n/a	n/a	6.67%	0.00%
E*TRADE Financial Corp	ETFC	0.04%	1.22%	0.00%	-11.58%	0.00%
Skyworks Solutions Inc	SKKS	0.08%	1.47%	0.00%	12.11%	0.01%
National Oilwell Varco Inc	NOV	0.00%	n/a	n/a	n/a	n/a
Quest Diagnostics Inc	DGXI	0.06%	1.88%	0.00%	5.46%	0.00%
Activision Blizzard Inc	ATVI	0.22%	0.56%	0.00%	11.12%	0.02%

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Name	Ticker	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Rockwell Automation Inc	ROK	0.09%	1.90%	0.00%	7.18%	0.01%
Kraft Heinz Co/The	KHC	0.14%	5.24%	0.01%	4.60%	0.01%
American Tower Corp	AMT	0.45%	1.65%	0.01%	15.64%	0.07%
HollyFrontier Corp	HFC	0.02%	4.44%	0.00%	-2.81%	0.00%
Regeneron Pharmaceuticals Inc	REGN	0.23%	n/a	n/a	9.02%	0.02%
Amazon.com Inc	AMZN	4.71%	n/a	n/a	26.16%	1.23%
Jack Henry & Associates Inc	JKHY	0.05%	0.95%	0.00%	12.10%	0.01%
Ralph Lauren Corp	RL	0.01%	n/a	n/a	4.71%	0.00%
Boston Properties Inc	BXP	0.05%	4.41%	0.00%	3.97%	0.00%
Amphenol Corp	APH	0.11%	1.02%	0.00%	8.12%	0.01%
Howmet Aerospace Inc	HWM	0.02%	n/a	n/a	51.10%	0.01%
Pioneer Natural Resources Co	PXD	0.06%	2.36%	0.00%	20.05%	0.01%
Valero Energy Corp	VLO	0.10%	5.89%	0.01%	-0.41%	0.00%
Synopsys Inc	SNPS	0.11%	n/a	n/a	14.35%	0.02%
Western Union Co/The	WU	0.03%	4.33%	0.00%	5.30%	0.00%
CH Robinson Worldwide Inc	CHRW	0.04%	2.54%	0.00%	8.37%	0.00%
Accenture PLC	ACN	0.50%	1.57%	0.01%	10.50%	0.05%
TransDigm Group Inc	TDG	0.09%	n/a	n/a	6.18%	0.01%
Yum! Brands Inc	YUM	0.10%	2.07%	0.00%	11.40%	0.01%
Prologis Inc	PLD	0.27%	2.46%	0.01%	5.12%	0.01%
FirstEnergy Corp	FE	0.09%	3.64%	0.00%	0.65%	0.00%
VeriSign Inc	VRSN	0.10%	n/a	n/a	3.20%	0.00%
Quanta Services Inc	PWR	0.02%	0.53%	0.00%	10.00%	0.00%
Henry Schein Inc	HSIC	0.03%	n/a	n/a	0.70%	0.00%
Ameren Corp	AEE	0.07%	2.63%	0.00%	7.06%	0.01%
ANSYS Inc	ANSS	0.09%	n/a	n/a	11.50%	0.01%
NVIDIA Corp	NVDA	0.83%	0.18%	0.00%	17.71%	0.15%
Sealed Air Corp	SEE	0.02%	1.97%	0.00%	3.29%	0.00%
Cognizant Technology Solutions Corp	CTSH	0.11%	1.66%	0.00%	10.08%	0.01%
SVB Financial Group	SIVB	0.04%	n/a	n/a	10.00%	0.00%
Intuitive Surgical Inc	ISRG	0.26%	n/a	n/a	6.66%	0.02%
Take-Two Interactive Software Inc	TTWO	0.06%	n/a	n/a	6.33%	0.00%
Republic Services Inc	RSG	0.10%	1.90%	0.00%	5.57%	0.01%
eBay Inc	EBAY	0.12%	1.41%	0.00%	11.80%	0.01%
Goldman Sachs Group Inc/The	GS	0.26%	2.50%	0.01%	5.13%	0.01%
Sempra Energy	SRE	0.14%	3.22%	0.00%	7.41%	0.01%
SBA Communications Corp	SBAC	0.14%	0.58%	0.00%	29.90%	0.04%
Moody's Corp	MCO	0.20%	0.81%	0.00%	8.00%	0.02%
Booking Holdings Inc	BKNG	0.26%	n/a	n/a	19.73%	0.05%
F5 Networks Inc	FFIV	0.03%	n/a	n/a	4.02%	0.00%
Akamai Technologies Inc	AKAM	0.07%	n/a	n/a	11.80%	0.01%
MarketAxess Holdings Inc	MKTX	0.00%	0.46%	0.00%	n/a	n/a
Devon Energy Corp	DVN	0.02%	3.74%	0.00%	0.55%	0.00%
Alphabet Inc	GOOGL	1.64%	n/a	n/a	14.18%	0.23%
Teleflex Inc	TFX	0.07%	0.37%	0.00%	12.25%	0.01%
Netflix Inc	NFLX	0.71%	n/a	n/a	31.97%	0.23%
Allegion plc	ALLE	0.04%	1.27%	0.00%	6.17%	0.00%
Agilent Technologies Inc	A	0.11%	0.80%	0.00%	10.30%	0.01%
Anthem Inc	ANTM	0.28%	1.31%	0.00%	12.67%	0.04%
CME Group Inc	CME	0.25%	1.84%	0.00%	8.43%	0.02%
Juniper Networks Inc	JNPR	0.03%	3.28%	0.00%	7.86%	0.00%
BlackRock Inc	BLK	0.32%	2.68%	0.01%	3.84%	0.01%
DTE Energy Co	DTE	0.08%	3.71%	0.00%	5.87%	0.00%
Nasdaq Inc	NDQA	0.08%	1.64%	0.00%	11.84%	0.01%
Celanese Corp	CE	0.04%	2.76%	0.00%	3.61%	0.00%
Philip Morris International Inc	PM	0.44%	6.35%	0.03%	5.97%	0.03%
salesforce.com Inc	CRM	0.61%	n/a	n/a	19.32%	0.12%
Ingersoll Rand Inc	IR	0.05%	n/a	n/a	10.20%	0.00%
Huntington Ingalls Industries Inc	HII	0.03%	2.09%	0.00%	40.00%	0.01%
MetLife Inc	MET	0.13%	5.09%	0.01%	5.85%	0.01%
Under Armour Inc	UA	0.01%	n/a	n/a	18.10%	0.00%
Tapestry Inc	TPR	0.01%	n/a	n/a	8.05%	0.00%
CSX Corp	CSX	0.21%	1.46%	0.00%	8.77%	0.02%
Edwards Lifesciences Corp	EW	0.18%	n/a	n/a	13.75%	0.02%
Ameriprise Financial Inc	AMP	0.07%	2.88%	0.00%	3.90%	0.00%
Zebra Technologies Corp	ZBRA	0.05%	n/a	n/a	11.90%	0.01%
TechnipFMC PLC	FTI	0.01%	1.66%	0.00%	9.50%	0.00%
Zimmer Biomet Holdings Inc	ZBH	0.10%	0.75%	0.00%	4.31%	0.00%
CBRE Group Inc	CBRE	0.06%	n/a	n/a	8.45%	0.00%
Mastercard Inc	MA	1.15%	0.53%	0.01%	15.00%	0.17%
CarMax Inc	KMX	0.06%	n/a	n/a	9.11%	0.01%
Intercontinental Exchange Inc	ICE	0.21%	1.22%	0.00%	9.07%	0.02%
Fidelity National Information Services Inc	FIS	0.33%	1.01%	0.00%	18.40%	0.06%
Chipotle Mexican Grill Inc	CMG	0.11%	n/a	n/a	15.17%	0.02%
Wynn Resorts Ltd	WYNN	0.04%	n/a	n/a	20.00%	0.01%
Live Nation Entertainment Inc	LYV	0.00%	n/a	n/a	n/a	n/a
Assurant Inc	AIZ	0.00%	2.44%	0.00%	n/a	n/a
NRG Energy Inc	NRG	0.03%	3.30%	0.00%	-11.05%	0.00%
Regions Financial Corp	RF	0.04%	5.42%	0.00%	-1.84%	0.00%
Monster Beverage Corp	MNST	0.15%	n/a	n/a	9.39%	0.01%
Mosaic Co/The	MOS	0.02%	1.59%	0.00%	38.35%	0.01%
Expedia Group Inc	EXPE	0.04%	n/a	n/a	10.97%	0.00%
Evergy Inc	EVRG	0.05%	3.23%	0.00%	6.70%	0.00%
Discovery Inc	DISCA	0.01%	n/a	n/a	-0.63%	0.00%
CF Industries Holdings Inc	CF	0.02%	4.03%	0.00%	11.05%	0.00%
Leidos Holdings Inc	LDOS	0.06%	1.27%	0.00%	10.36%	0.01%
Alphabet Inc	GOOG	1.84%	n/a	n/a	14.18%	0.26%
Cooper Cos Inc/The	COO	0.06%	0.02%	0.00%	8.93%	0.01%
TE Connectivity Ltd	TEL	0.11%	2.28%	0.00%	9.28%	0.01%
Discover Financial Services	DFS	0.06%	3.57%	0.00%	29.12%	0.02%
Visa Inc	V	1.25%	0.62%	0.01%	13.52%	0.17%

STANDARD AND POOR'S 500 INDEX

		[14]	[15]	[16]	[17]	[18]
Name	Ticker	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Mid-America Apartment Communities Inc	MAA	0.00%	3.37%	0.00%	n/a	n/a
Xylem Inc/NY	XYL	0.05%	1.57%	0.00%	25.00%	0.01%
Marathon Petroleum Corp	MPC	0.09%	6.39%	0.01%	4.05%	0.00%
Tractor Supply Co	TSCO	0.05%	1.14%	0.00%	11.16%	0.01%
Advanced Micro Devices Inc	AMD	0.24%	n/a	n/a	20.33%	0.05%
ResMed Inc	RMD	0.09%	0.96%	0.00%	13.80%	0.01%
Mettler-Toledo International Inc	MTD	0.07%	n/a	n/a	8.17%	0.01%
Copart Inc	CPRT	0.00%	n/a	n/a	n/a	n/a
Albemarle Corp	ALB	0.03%	1.98%	0.00%	10.07%	0.00%
Fortinet Inc	FTNT	0.09%	n/a	n/a	16.68%	0.02%
Essex Property Trust Inc	ESS	0.06%	3.35%	0.00%	3.92%	0.00%
Realty Income Corp	O	0.07%	4.91%	0.00%	3.64%	0.00%
Seagate Technology PLC	STX	0.05%	4.98%	0.00%	4.83%	0.00%
Westrock Co	WRK	0.03%	2.77%	0.00%	-5.50%	0.00%
IHS Markit Ltd	INFO	0.11%	0.96%	0.00%	12.20%	0.01%
Westinghouse Air Brake Technologies Corp	WAB	0.04%	0.78%	0.00%	7.66%	0.00%
Western Digital Corp	WDC	0.05%	n/a	n/a	-1.20%	0.00%
PepsiCo Inc	PEP	0.71%	3.06%	0.02%	4.17%	0.03%
Diamondback Energy Inc	FANG	0.03%	3.42%	0.00%	17.94%	0.00%
Maxim Integrated Products Inc	MXIM	0.06%	3.31%	0.00%	8.03%	0.00%
ServiceNow Inc	NOW	0.28%	n/a	n/a	29.60%	0.08%
Church & Dwight Co Inc	CHD	0.07%	1.26%	0.00%	7.87%	0.01%
Duke Realty Corp	DRE	0.05%	2.66%	0.00%	-0.65%	0.00%
Federal Realty Investment Trust	FRT	0.02%	4.96%	0.00%	3.16%	0.00%
MGM Resorts International	MGM	0.03%	0.06%	0.00%	18.70%	0.01%
JB Hunt Transport Services Inc	JBHT	0.05%	0.93%	0.00%	13.05%	0.01%
Lam Research Corp	LRCX	0.15%	1.70%	0.00%	10.47%	0.02%
Mohawk Industries Inc	MHK	0.03%	n/a	n/a	9.00%	0.00%
Pentair PLC	PNR	0.02%	1.94%	0.00%	4.94%	0.00%
Vertex Pharmaceuticals Inc	VRTX	0.28%	n/a	n/a	24.51%	0.07%
Ancor PLC	AMCR	0.06%	4.49%	0.00%	8.90%	0.01%
Facebook Inc	FB	2.11%	n/a	n/a	22.16%	0.47%
T-Mobile US Inc	TMUS	0.47%	n/a	n/a	12.15%	0.06%
United Rentals Inc	URI	0.04%	n/a	n/a	6.32%	0.00%
ABIOMED Inc	ABMD	0.00%	n/a	n/a	n/a	n/a
Alexandria Real Estate Equities Inc	ARE	0.07%	2.74%	0.00%	4.13%	0.00%
Delta Air Lines Inc	DAL	0.06%	n/a	n/a	-0.50%	0.00%
United Airlines Holdings Inc	UAL	0.03%	n/a	n/a	-5.70%	0.00%
News Corp	NWS	0.01%	1.63%	0.00%	3.29%	0.00%
Centene Corp	CNC	0.15%	n/a	n/a	14.65%	0.02%
Martin Marietta Materials Inc	MLM	0.05%	1.12%	0.00%	10.66%	0.00%
PayPal Holdings Inc	PYPL	0.69%	n/a	n/a	20.39%	0.14%
Coty Inc	COTY	0.01%	n/a	n/a	-1.77%	0.00%
DISH Network Corp	DISH	0.04%	n/a	n/a	1.62%	0.00%
Dow Inc	DOW	0.11%	7.20%	0.01%	-10.32%	-0.01%
Alexion Pharmaceuticals Inc	ALXN	0.10%	n/a	n/a	11.09%	0.01%
Everest Re Group Ltd	RE	0.03%	3.19%	0.00%	10.00%	0.00%
News Corp	NWSA	0.02%	1.63%	0.00%	3.29%	0.00%
Exelon Corp	EXC	0.15%	3.93%	0.01%	0.77%	0.00%
Global Payments Inc	GPN	0.21%	0.43%	0.00%	17.56%	0.04%
Crown Castle International Corp	CCI	0.28%	2.74%	0.01%	17.63%	0.05%
Aptiv PLC	APTIV	0.07%	n/a	n/a	9.46%	0.01%
Advance Auto Parts Inc	AAP	0.04%	0.71%	0.00%	12.08%	0.00%
Align Technology Inc	ALGN	0.07%	n/a	n/a	10.75%	0.01%
Illumina Inc	ILMN	0.21%	n/a	n/a	18.06%	0.04%
Alliance Data Systems Corp	ADS	0.01%	1.69%	0.00%	-4.44%	0.00%
LKQ Corp	LKQ	0.03%	n/a	n/a	2.60%	0.00%
Nielsen Holdings PLC	NLSN	0.02%	1.63%	0.00%	12.00%	0.00%
Garmin Ltd	GRMN	0.07%	2.69%	0.00%	6.35%	0.00%
Zoetis Inc	ZTS	0.25%	0.58%	0.00%	6.08%	0.02%
Equinix Inc	EQIX	0.24%	1.49%	0.00%	18.80%	0.05%
Digital Realty Trust Inc	DLR	0.15%	3.09%	0.00%	15.80%	0.02%
Las Vegas Sands Corp	LVS	0.14%	n/a	n/a	9.10%	0.01%
Discovery Inc	DISCK	0.03%	n/a	n/a	-0.63%	0.00%

Notes:

[9] Equals sum of Col. [16]  
[10] Equals sum of Col. [18]  
[11] Equals ([9] x (1 + (0.5 x [10]))) + [10]  
[12] Source: Attachment AEB-Supplemental-6, at 1  
[13] Equals [11] - [12]  
[14] Equals weight in S&P 500 based on market capitalization  
[15] Source: Bloomberg Professional, as of May 29, 2020  
[16] Equals [14] x [15]  
[17] Source: Bloomberg Professional, as of May 29, 2020  
[18] Equals [14] x [17]

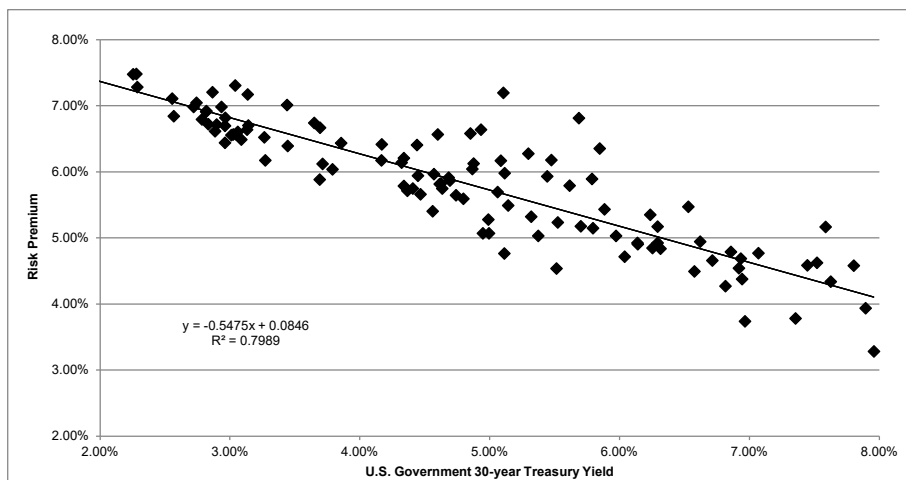


BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average Authorized Electric ROE	U.S. Govt. 30-year Treasury	Risk Premium
1992.1	12.38%	7.80%	4.58%
1992.2	11.83%	7.89%	3.93%
1992.3	12.03%	7.45%	4.59%
1992.4	12.14%	7.52%	4.62%
1993.1	11.84%	7.07%	4.77%
1993.2	11.64%	6.86%	4.79%
1993.3	11.15%	6.31%	4.84%
1993.4	11.04%	6.14%	4.90%
1994.1	11.07%	6.57%	4.49%
1994.2	11.13%	7.35%	3.78%
1994.3	12.75%	7.58%	5.17%
1994.4	11.24%	7.96%	3.28%
1995.1	11.96%	7.63%	4.34%
1995.2	11.32%	6.94%	4.37%
1995.3	11.37%	6.71%	4.66%
1995.4	11.58%	6.23%	5.35%
1996.1	11.46%	6.29%	5.17%
1996.2	11.46%	6.92%	4.54%
1996.3	10.70%	6.96%	3.74%
1996.4	11.56%	6.62%	4.94%
1997.1	11.08%	6.81%	4.27%
1997.2	11.62%	6.93%	4.68%
1997.3	12.00%	6.53%	5.47%
1997.4	11.06%	6.14%	4.92%
1998.1	11.31%	5.88%	5.43%
1998.2	12.20%	5.85%	6.35%
1998.3	11.65%	5.47%	6.18%
1998.4	12.30%	5.10%	7.20%
1999.1	10.40%	5.37%	5.03%
1999.2	10.94%	5.79%	5.15%
1999.3	10.75%	6.04%	4.71%
1999.4	11.10%	6.25%	4.85%
2000.1	11.21%	6.29%	4.92%
2000.2	11.00%	5.97%	5.03%
2000.3	11.68%	5.79%	5.89%
2000.4	12.50%	5.69%	6.81%
2001.1	11.38%	5.44%	5.93%
2001.2	10.88%	5.70%	5.18%
2001.3	10.76%	5.52%	5.23%
2001.4	11.57%	5.30%	6.27%
2002.1	10.05%	5.51%	4.54%
2002.2	11.41%	5.61%	5.79%
2002.3	11.25%	5.08%	6.17%
2002.4	11.57%	4.93%	6.64%
2003.1	11.43%	4.85%	6.58%
2003.2	11.16%	4.60%	6.56%
2003.3	9.88%	5.11%	4.76%
2003.4	11.09%	5.11%	5.98%
2004.1	11.00%	4.88%	6.12%
2004.2	10.64%	5.32%	5.32%
2004.3	10.75%	5.06%	5.69%
2004.4	10.91%	4.86%	6.04%
2005.1	10.56%	4.69%	5.87%
2005.2	10.13%	4.47%	5.66%
2005.3	10.85%	4.44%	6.41%
2005.4	10.59%	4.68%	5.91%
2006.1	10.38%	4.63%	5.75%
2006.2	10.63%	5.14%	5.49%
2006.3	10.06%	4.99%	5.07%
2006.4	10.39%	4.74%	5.65%
2007.1	10.39%	4.80%	5.59%
2007.2	10.27%	4.99%	5.28%
2007.3	10.02%	4.95%	5.07%
2007.4	10.43%	4.61%	5.81%
2008.1	10.15%	4.41%	5.75%
2008.2	10.54%	4.57%	5.97%
2008.3	10.38%	4.44%	5.94%
2008.4	10.39%	3.65%	6.74%
2009.1	10.45%	3.44%	7.01%
2009.2	10.58%	4.17%	6.42%
2009.3	10.46%	4.32%	6.14%
2009.4	10.54%	4.34%	6.21%
2010.1	10.45%	4.62%	5.82%
2010.2	10.08%	4.36%	5.71%
2010.3	10.29%	3.86%	6.43%
2010.4	10.34%	4.17%	6.17%
2011.1	9.96%	4.56%	5.40%
2011.2	10.12%	4.34%	5.78%

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average Authorized Electric ROE	U.S. Govt. 30-year Treasury	Risk Premium
2011.3	10.36%	3.69%	6.67%
2011.4	10.34%	3.04%	7.31%
2012.1	10.30%	3.14%	7.17%
2012.2	9.92%	2.93%	6.98%
2012.3	9.78%	2.74%	7.04%
2012.4	10.07%	2.86%	7.21%
2013.1	9.77%	3.13%	6.64%
2013.2	9.84%	3.14%	6.70%
2013.3	9.83%	3.71%	6.12%
2013.4	9.82%	3.79%	6.04%
2014.1	9.57%	3.69%	5.88%
2014.2	9.83%	3.44%	6.39%
2014.3	9.79%	3.26%	6.52%
2014.4	9.78%	2.96%	6.81%
2015.1	9.66%	2.55%	7.11%
2015.2	9.50%	2.88%	6.61%
2015.3	9.40%	2.96%	6.44%
2015.4	9.65%	2.96%	6.69%
2016.1	9.70%	2.72%	6.98%
2016.2	9.41%	2.57%	6.84%
2016.3	9.76%	2.28%	7.48%
2016.4	9.55%	2.83%	6.72%
2017.1	9.61%	3.04%	6.57%
2017.2	9.61%	2.90%	6.71%
2017.3	9.73%	2.82%	6.91%
2017.4	9.74%	2.82%	6.92%
2018.1	9.59%	3.02%	6.57%
2018.2	9.57%	3.09%	6.49%
2018.3	9.66%	3.06%	6.60%
2018.4	9.44%	3.27%	6.17%
2019.1	9.57%	3.01%	6.56%
2019.2	9.58%	2.78%	6.79%
2019.3	9.57%	2.29%	7.28%
2019.4	9.73%	2.25%	7.48%
2020.1	9.45%	1.89%	7.56%
2020.2	9.58%	1.32%	8.26%
AVERAGE	10.61%	4.74%	5.87%
MEDIAN	10.45%	4.72%	5.94%



#### SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.893811
R Square	0.798898
Adjusted R Square	0.797102
Standard Error	0.004346
Observations	114

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.008405	0.008405	444.930706	0.000000
Residual	112	0.002116	0.000019		
Total	113	0.010520			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.0846	0.001297	65.26	0.000000	0.082067	0.087206	0.082067	0.087206
U.S. Govt. 30-year Treasury	(0.5475)	0.025955	(21.09)	0.000000	(0.598900)	(0.496048)	(0.598900)	(0.496048)

	[7]	[8]	[9]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current 30-Day Average [4]	1.33%	7.74%	9.06%
Blue Chip Consensus Forecast (Q3 2020 - Q3 2021) [5]	1.68%	7.54%	9.22%
Blue Chip Consensus Forecast (2022-2026) [6]	3.00%	6.82%	9.82%
AVERAGE			9.37%

#### Notes:

[1] Source: Regulatory Research Associates, cases up until May 31, 2020.

[2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the quarter

[3] Equals Column [1] - Column [2]

[4] Source: Bloomberg Professional, 30-day average as of May 29, 2020

[5] Source: Blue Chip Financial Forecasts, Vol. 39, No. 6, June 1, 2020, at 2

[6] Source: Blue Chip Financial Forecasts, Vol. 39, No. 6, June 1, 2020, at 14

[7] See notes [4], [5] & [6]

[8] Equals  $0.084637 + (-0.547474 \times \text{Column [7]})$

[9] Equals Column [7] + Column [8]

BETA COEFFICIENT COMPARISON

		[1]	[2]	[3]
		Bloomberg as	Value Line as	Value Line as
Value Line Electric East		of May 29, 2020	of May 15, 2020	of February 14, 2020
Avangrid, Inc.	AGR	0.73	0.80	0.40
Dominion Resources, Inc.	D	0.71	0.80	0.50
Duke Energy Corporation	DUK	0.72	0.85	0.45
Consolidated Edison, Inc.	ED	0.64	0.75	0.40
Eversource Energy	ES	0.81	0.90	0.55
Exelon Corporation	EXC	0.80	0.90	0.65
FirstEnergy Corporation	FE	0.80	0.85	0.60
NextEra Energy, Inc.	NEE	0.76	0.85	0.50
Public Service Enterprise Group, Inc.	PEG	0.83	0.90	0.60
PPL Corporation	PPL	0.89	1.05	0.65
Southern Company	SO	0.73	0.90	0.50
Mean		0.77	0.87	0.53

		[1]	[2]	[3]
		Bloomberg as	Value Line as	Value Line as
Value Line Electric Central		of May 29, 2020	of June 12, 2020	of March 13, 2020
ALLETE, Inc.	ALE	0.82	0.85	0.60
Alliant Energy Corporation	LNT	0.81	0.80	0.55
Ameren Corporation	AEE	0.76	0.80	0.50
American Electric Power Company, Inc	AEP	0.77	0.75	0.50
CenterPoint Energy, Inc.	CNP	0.98	1.15	0.70
CMS Energy Corporation	CMS	0.77	0.80	0.50
DTE Energy Company	DTE	0.84	0.90	0.50
Entergy Corporation	ETR	0.84	0.95	0.60
Evergy, Inc.	EVRG	0.81	1.05	NMF
MGE Energy, Inc.	MGEE	0.68	0.70	0.50
OGE Energy Corporation	OGE	0.92	1.05	0.70
Otter Tail Corporation	OTTR	0.87	0.85	0.70
Wisconsin Energy Corporation	WEC	0.75	0.80	0.45
Mean		0.82	0.88	0.57

Notes:

[1] Source: Bloomberg Professional

[2] Source: Value Line

[3] Source: Value Line

**ELECTRIC RATE CASE HISTORY**  
**FEBRUARY 2020 - June 2020**

State	Company	Parent Company Ticker	Docket	Rate Case Service Type	Case Type	Date	Decision Type	Return on Equity (%)	Fully Litigated ROEs
California	PacifiCorp	BRK.A	A-18-04-002	Electric	Vertically Integrated	2/6/2020	Fully Litigated	10.00	10.00
Colorado	Public Service Co. of CO	XEL	D-19AL-0268E	Electric	Vertically Integrated	2/11/2020	Fully Litigated	9.30	9.30
Indiana	Duke Energy Indiana, LLC	DUK	Ca-45253	Electric	Vertically Integrated	6/29/2020	Fully Litigated	9.70	9.70
Indiana	Indiana Michigan Power Co.	AEP	Ca-45235	Electric	Vertically Integrated	3/11/2020	Fully Litigated	9.70	9.70
Kentucky	Duke Energy Kentucky Inc.	DUK	C-2019-00271	Electric	Vertically Integrated	4/27/2020	Fully Litigated	9.25	9.25
Massachusetts	Fitchburg Gas & Electric Light	UTL	DPU 19-130	Electric	Distribution	4/17/2020	Settled	9.70	
Michigan	DTE Electric Co.	DTE	C-U-20561	Electric	Vertically Integrated	5/8/2020	Fully Litigated	9.90	9.90
North Carolina	Virginia Electric & Power Co.	D	E-22, Sub 562	Electric	Vertically Integrated	2/24/2020	Settled	9.75	
New Hampshire	Liberty Utilities	AQN	DE 19-064	Electric	Distribution	6/30/2020	Settled	9.10	
New Mexico	Southwestern Public Service Co	XEL	C-19-00170-UT	Electric	Vertically Integrated	5/20/2020	Settled	9.45	
Texas	AEP Texas Inc.	AEP	D-49494	Electric	Distribution	2/27/2020	Settled	9.40	
Texas	CenterPoint Energy Houston	CNP	D-49421	Electric	Distribution	2/14/2020	Settled	9.40	
Washington	Avista Corp.	AVA	D-UE-190334	Electric	Vertically Integrated	3/25/2020	Settled	9.40	
MEAN								9.54	9.64
LOW								9.10	9.25
HIGH								10.00	10.00

Notes:

[1] Source: S&P Global Market Intelligence, NH Pubic Service Commission

[2] Excludes limited issue rider cases, transmission-only cases and cases that were silent with respect to the authorized ROE.

[3] Excludes the Central Maine Power ROE of 8.25 percent authorized on February 19, 2020 in D-2018-00194 because it included a penalty of 100 basis points for management performance.

CAPITAL STRUCTURE ANALYSIS

COMMON EQUITY RATIO [1]										
Proxy Group Company	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE, Inc.	ALE	58.34%	59.55%	59.30%	60.87%	60.78%	61.24%	60.33%	60.26%	60.08%
Alliant Energy Corporation	LNT	50.84%	49.95%	50.45%	49.61%	51.44%	51.27%	49.65%	49.68%	50.36%
Avangrid, Inc.	AGR	53.85%	54.71%	54.45%	56.37%	56.60%	56.10%	55.39%	53.42%	55.11%
FirstEnergy Corporation	FE	55.32%	55.52%	56.92%	56.36%	56.90%	57.42%	58.23%	57.00%	56.71%
Hawaiian Electric Industries, Inc.	HE	53.27%	53.72%	53.65%	52.46%	53.67%	57.55%	54.69%	54.28%	54.16%
NorthWestern Corporation	NWE	47.78%	47.59%	47.80%	48.07%	48.74%	47.88%	48.36%	48.41%	48.08%
Portland General Electric Company	POR	49.90%	49.85%	51.78%	51.39%	50.60%	50.19%	50.51%	50.29%	50.56%
PPL Corporation	PPL	53.07%	52.89%	53.64%	53.02%	53.47%	53.35%	53.91%	53.53%	53.36%
MEAN		52.80%	52.97%	53.50%	53.52%	54.02%	54.37%	53.88%	53.36%	53.55%
LOW		47.78%	47.59%	47.80%	48.07%	48.74%	47.88%	48.36%	48.41%	48.08%
HIGH		58.34%	59.55%	59.30%	60.87%	60.78%	61.24%	60.33%	60.26%	60.08%

COMMON EQUITY RATIO - UTILITY OPERATING COMPANIES [2]										
Company Name	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE (Minnesota Power)	ALE	58.32%	59.59%	59.33%	60.94%	60.87%	61.39%	60.43%	60.33%	60.15%
Superior Water, Light and Power Company	ALE	59.14%	58.08%	58.03%	58.38%	57.40%	55.76%	56.58%	57.34%	57.59%
Interstate Power and Light Company	LNT	49.75%	48.74%	48.56%	50.11%	51.59%	51.26%	47.96%	48.62%	49.57%
Wisconsin Power and Light Company	LNT	52.41%	51.71%	53.30%	48.92%	51.22%	51.29%	52.04%	51.09%	51.50%
Central Maine Power Company	AGR	61.15%	62.49%	62.18%	61.95%	63.24%	63.20%	62.83%	62.27%	62.41%
New York State Electric & Gas Corporation	AGR	47.00%	47.80%	48.79%	54.16%	54.41%	53.50%	53.68%	49.19%	51.07%
Rochester Gas and Electric Corporation	AGR	51.13%	50.44%	50.50%	50.25%	49.96%	48.89%	48.16%	47.78%	49.64%
United Illuminating Company	AGR	56.17%	57.63%	54.98%	57.26%	56.65%	56.46%	53.89%	51.64%	55.58%
Cleveland Electric Illuminating Company	FE	53.20%	53.53%	54.73%	53.49%	54.32%	55.19%	56.50%	56.27%	54.66%
Jersey Central Power & Light Company	FE	66.46%	66.87%	68.02%	66.58%	67.05%	67.54%	66.41%	64.90%	66.73%
Metropolitan Edison Company	FE	48.37%	48.00%	49.72%	48.46%	47.78%	50.71%	52.40%	50.43%	49.48%
Monongahela Power Company	FE	46.21%	45.77%	47.85%	46.55%	47.19%	46.68%	50.71%	49.50%	47.56%
Ohio Edison Company	FE	67.66%	66.77%	69.16%	71.42%	70.82%	69.93%	69.14%	67.33%	69.03%
Pennsylvania Electric Company	FE	49.83%	50.37%	51.78%	50.93%	51.73%	52.81%	52.71%	52.77%	51.62%
Pennsylvania Power Company	FE	47.07%	47.34%	53.09%	51.71%	50.69%	49.03%	57.01%	54.79%	51.34%
Potomac Edison Company	FE	51.06%	53.03%	52.89%	52.61%	53.29%	52.35%	52.92%	52.65%	52.60%
Toledo Edison Company	FE	57.83%	57.58%	60.76%	59.71%	60.78%	60.39%	62.25%	60.71%	60.00%
West Penn Power Company	FE	46.73%	47.64%	45.50%	46.25%	48.64%	49.75%	50.13%	48.01%	47.83%
Hawaiian Electric Company, Inc.	HE	53.27%	53.72%	53.65%	52.46%	53.67%	57.55%	54.69%	54.28%	54.16%
NorthWestern Corporation	NWE	47.78%	47.59%	47.80%	48.07%	48.74%	47.88%	48.36%	48.41%	48.08%
Portland General Electric Company	POR	49.90%	49.85%	51.78%	51.39%	50.60%	50.19%	50.51%	50.29%	50.56%
Kentucky Utilities Company	PPL	52.25%	51.54%	52.95%	52.81%	53.08%	52.46%	53.43%	53.13%	52.71%
Louisville Gas and Electric Company	PPL	52.61%	51.25%	52.91%	52.73%	52.75%	52.26%	53.06%	52.59%	52.52%
PPL Electric Utilities Corporation	PPL	53.85%	54.62%	54.44%	53.31%	54.13%	54.52%	54.65%	54.28%	54.23%

Notes:

[1] Ratios are weighted by actual common capital, preferred capital, long-term debt and short-term debt of Operating Subsidiaries.

[2] Natural Gas and Electric Operating Subsidiaries with data listed as N/A from SNL Financial have been excluded from the analysis.

CAPITAL STRUCTURE ANALYSIS

		LONG-TERM DEBT RATIO [1]								
Proxy Group Company	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE, Inc.	ALE	41.66%	40.45%	40.70%	39.13%	39.19%	38.71%	39.67%	39.74%	39.91%
Alliant Energy Corporation	LNT	45.77%	46.72%	47.67%	48.46%	45.24%	45.15%	47.92%	47.87%	46.85%
Avangrid, Inc.	AGR	42.96%	44.29%	45.17%	42.78%	42.50%	43.48%	42.35%	42.95%	43.31%
FirstEnergy Corporation	FE	42.68%	43.07%	41.87%	41.13%	40.59%	40.06%	39.67%	39.61%	41.08%
Hawaiian Electric Industries, Inc.	HE	44.12%	43.94%	43.33%	43.23%	44.80%	41.71%	42.81%	43.03%	43.37%
NorthWestern Corporation	NWE	52.22%	52.41%	52.20%	51.93%	51.26%	52.12%	51.64%	51.59%	51.92%
Portland General Electric Company	POR	49.73%	50.15%	48.22%	48.27%	49.40%	49.81%	49.49%	49.71%	49.35%
PPL Corporation	PPL	44.81%	45.09%	45.83%	45.46%	43.43%	43.79%	44.38%	44.67%	44.68%
MEAN		45.49%	45.77%	45.62%	45.05%	44.55%	44.35%	44.74%	44.90%	45.06%
LOW		41.66%	40.45%	40.70%	39.13%	39.19%	38.71%	39.67%	39.61%	39.91%
HIGH		52.22%	52.41%	52.20%	51.93%	51.26%	52.12%	51.64%	51.59%	51.92%

		LONG-TERM DEBT RATIO - UTILITY OPERATING COMPANIES [2]								
Company Name	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE (Minnesota Power)	ALE	41.68%	40.41%	40.67%	39.06%	39.13%	38.61%	39.57%	39.67%	39.85%
Superior Water, Light and Power Company	ALE	40.86%	41.92%	41.97%	41.62%	41.24%	42.31%	43.42%	42.66%	42.00%
Interstate Power and Light Company	LNT	47.32%	48.28%	48.44%	46.70%	45.13%	44.51%	48.66%	47.72%	47.10%
Wisconsin Power and Light Company	LNT	43.52%	44.45%	46.51%	50.90%	45.38%	46.04%	46.85%	48.08%	46.47%
Central Maine Power Company	AGR	36.83%	37.50%	37.81%	38.03%	36.33%	36.78%	35.08%	35.75%	36.76%
New York State Electric & Gas Corporation	AGR	47.28%	49.88%	51.21%	42.84%	42.88%	45.02%	45.82%	47.28%	46.52%
Rochester Gas and Electric Corporation	AGR	46.74%	48.05%	49.50%	49.75%	50.04%	51.11%	51.84%	52.24%	49.91%
United Illuminating Company	AGR	41.64%	42.37%	43.10%	42.74%	43.35%	43.54%	38.67%	38.27%	41.71%
Cleveland Electric Illuminating Company	FE	42.54%	43.50%	43.46%	42.90%	43.47%	44.36%	43.50%	43.67%	43.43%
Jersey Central Power & Light Company	FE	30.93%	30.99%	30.93%	30.99%	31.43%	29.70%	29.37%	29.42%	30.47%
Metropolitan Edison Company	FE	51.63%	52.00%	50.28%	51.54%	52.22%	44.59%	44.18%	44.54%	48.87%
Monongahela Power Company	FE	53.79%	52.97%	47.90%	48.32%	49.02%	48.85%	49.29%	46.55%	49.59%
Ohio Edison Company	FE	32.34%	33.23%	30.84%	28.58%	29.18%	30.07%	30.86%	32.67%	30.97%
Pennsylvania Electric Company	FE	50.17%	49.63%	48.22%	49.07%	44.33%	45.19%	44.88%	45.13%	47.08%
Pennsylvania Power Company	FE	48.00%	49.68%	46.91%	48.29%	49.31%	50.97%	40.83%	41.53%	46.94%
Potomac Edison Company	FE	42.61%	44.62%	45.63%	46.67%	46.71%	47.65%	47.08%	47.35%	46.04%
Toledo Edison Company	FE	38.43%	38.80%	39.24%	38.87%	39.22%	39.55%	37.75%	36.82%	38.59%
West Penn Power Company	FE	50.73%	52.26%	53.18%	45.10%	40.31%	43.23%	44.20%	44.16%	46.65%
Hawaiian Electric Company, Inc.	HE	44.12%	43.94%	43.33%	43.23%	44.80%	41.71%	42.81%	43.03%	43.37%
NorthWestern Corporation	NWE	52.22%	52.41%	52.20%	51.93%	51.26%	52.12%	51.64%	51.59%	51.92%
Portland General Electric Company	POR	49.73%	50.15%	48.22%	48.27%	49.40%	49.81%	49.49%	49.71%	49.35%
Kentucky Utilities Company	PPL	45.27%	45.85%	47.02%	47.19%	42.66%	43.19%	44.15%	44.34%	44.96%
Louisville Gas and Electric Company	PPL	43.51%	43.61%	44.89%	45.13%	41.17%	41.39%	42.80%	43.08%	43.20%
PPL Electric Utilities Corporation	PPL	45.19%	45.38%	45.56%	44.48%	45.15%	45.48%	45.35%	45.72%	45.29%

Notes:

[1] Ratios are weighted by actual common capital, preferred capital, long-term debt and short-term debt of Operating Subsidiaries.

[2] Natural Gas and Electric Operating Subsidiaries with data listed as N/A from SNL Financial have been excluded from the analysis.

CAPITAL STRUCTURE ANALYSIS

PREFERRED EQUITY RATIO [1]										
Proxy Group Company	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE, Inc.	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Alliant Energy Corporation	LNT	1.74%	1.77%	1.80%	1.85%	1.92%	1.97%	1.98%	2.10%	1.89%
Avangrid, Inc.	AGR	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
FirstEnergy Corporation	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hawaiian Electric Industries, Inc.	HE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NorthWestern Corporation	NWE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Portland General Electric Company	POR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PPL Corporation	PPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MEAN		0.22%	0.22%	0.23%	0.23%	0.24%	0.25%	0.25%	0.26%	0.24%
LOW		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
HIGH		1.74%	1.77%	1.80%	1.85%	1.92%	1.97%	1.98%	2.10%	1.89%

PREFERRED EQUITY RATIO - UTILITY OPERATING COMPANIES [2]										
Company Name	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE (Minnesota Power)	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Superior Water, Light and Power Company	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Interstate Power and Light Company	LNT	2.93%	2.98%	2.99%	3.18%	3.28%	3.38%	3.37%	3.66%	3.22%
Wisconsin Power and Light Company	LNT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Central Maine Power Company	AGR	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
New York State Electric & Gas Corporation	AGR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rochester Gas and Electric Corporation	AGR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
United Illuminating Company	AGR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cleveland Electric Illuminating Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Jersey Central Power & Light Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Metropolitan Edison Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Monongahela Power Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ohio Edison Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pennsylvania Electric Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pennsylvania Power Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Potomac Edison Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Toledo Edison Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
West Penn Power Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hawaiian Electric Company, Inc.	HE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NorthWestern Corporation	NWE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Portland General Electric Company	POR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Kentucky Utilities Company	PPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Louisville Gas and Electric Company	PPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PPL Electric Utilities Corporation	PPL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Notes:

[1] Ratios are weighted by actual common capital, preferred capital, long-term debt and short-term debt of Operating Subsidiaries.

[2] Natural Gas and Electric Operating Subsidiaries with data listed as N/A from SNL Financial have been excluded from the analysis.



CAPITAL STRUCTURE ANALYSIS

SHORT-TERM DEBT RATIO [1]										
Proxy Group Company	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE, Inc.	ALE	0.00%	0.00%	0.00%	0.00%	0.04%	0.05%	0.00%	0.00%	0.01%
Alliant Energy Corporation	LNT	1.66%	1.56%	0.08%	0.08%	1.41%	1.61%	0.45%	0.35%	0.90%
Avangrid, Inc.	AGR	3.18%	1.00%	0.38%	0.85%	0.90%	0.42%	2.26%	3.62%	1.58%
FirstEnergy Corporation	FE	2.00%	1.41%	1.21%	2.51%	2.51%	2.52%	2.11%	3.40%	2.21%
Hawaiian Electric Industries, Inc.	HE	2.60%	2.33%	3.02%	4.31%	1.53%	0.73%	2.50%	2.69%	2.47%
NorthWestern Corporation	NWE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Portland General Electric Company	POR	0.38%	0.00%	0.00%	0.34%	0.00%	0.00%	0.00%	0.00%	0.09%
PPL Corporation	PPL	2.11%	2.02%	0.53%	1.52%	3.10%	2.86%	1.71%	1.79%	1.96%
MEAN		1.49%	1.04%	0.65%	1.20%	1.19%	1.02%	1.13%	1.48%	1.15%
LOW		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
HIGH		3.18%	2.33%	3.02%	4.31%	3.10%	2.86%	2.50%	3.62%	2.47%

SHORT-TERM DEBT RATIO - UTILITY OPERATING COMPANIES [2]										
Company Name	Ticker	2020Q1	2019Q4	2019Q3	2019Q2	2019Q1	2018Q4	2018Q3	2018Q2	Average
ALLETE (Minnesota Power)	ALE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Superior Water, Light and Power Company	ALE	0.00%	0.00%	0.00%	0.00%	1.36%	1.93%	0.00%	0.00%	0.41%
Interstate Power and Light Company	LNT	0.00%	0.00%	0.00%	0.00%	0.00%	0.85%	0.00%	0.00%	0.11%
Wisconsin Power and Light Company	LNT	4.07%	3.84%	0.19%	0.18%	3.40%	2.67%	1.10%	0.83%	2.04%
Central Maine Power Company	AGR	2.01%	0.00%	0.00%	0.00%	0.41%	0.00%	2.08%	1.96%	0.81%
New York State Electric & Gas Corporation	AGR	5.72%	2.31%	0.00%	2.99%	2.71%	1.49%	0.50%	3.53%	2.41%
Rochester Gas and Electric Corporation	AGR	2.14%	1.52%	0.00%	0.00%	0.00%	0.00%	0.00%	-0.02%	0.45%
United Illuminating Company	AGR	2.19%	0.00%	1.92%	0.00%	0.00%	0.00%	7.44%	10.09%	2.71%
Cleveland Electric Illuminating Company	FE	4.26%	2.97%	1.81%	3.60%	2.21%	0.44%	0.00%	0.06%	1.92%
Jersey Central Power & Light Company	FE	2.61%	2.14%	1.05%	2.43%	1.52%	2.75%	4.22%	5.67%	2.80%
Metropolitan Edison Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	4.69%	3.43%	5.03%	1.64%
Monongahela Power Company	FE	0.00%	1.26%	4.25%	5.13%	3.78%	4.47%	0.00%	3.95%	2.86%
Ohio Edison Company	FE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pennsylvania Electric Company	FE	0.00%	0.00%	0.00%	0.00%	3.94%	2.01%	2.41%	2.10%	1.31%
Pennsylvania Power Company	FE	4.93%	2.98%	0.00%	0.00%	0.00%	0.00%	2.16%	3.68%	1.72%
Potomac Edison Company	FE	6.32%	2.34%	1.48%	0.73%	0.00%	0.00%	0.00%	0.00%	1.36%
Toledo Edison Company	FE	3.74%	3.62%	0.00%	1.42%	0.00%	0.06%	0.00%	2.47%	1.41%
West Penn Power Company	FE	2.54%	0.10%	1.31%	8.65%	11.05%	7.02%	5.66%	7.83%	5.52%
Hawaiian Electric Company, Inc.	HE	2.60%	2.33%	3.02%	4.31%	1.53%	0.73%	2.50%	2.69%	2.47%
NorthWestern Corporation	NWE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Portland General Electric Company	POR	0.38%	0.00%	0.00%	0.34%	0.00%	0.00%	0.00%	0.00%	0.09%
Kentucky Utilities Company	PPL	2.47%	2.60%	0.04%	0.00%	4.26%	4.35%	2.42%	2.53%	2.33%
Louisville Gas and Electric Company	PPL	3.87%	5.15%	2.20%	2.14%	6.08%	6.35%	4.14%	4.33%	4.28%
PPL Electric Utilities Corporation	PPL	0.96%	0.00%	0.00%	2.21%	0.73%	0.00%	0.00%	0.00%	0.49%

Notes:

[1] Ratios are weighted by actual common capital, preferred capital, long-term debt and short-term debt of Operating Subsidiaries.

[2] Natural Gas and Electric Operating Subsidiaries with data listed as N/A from SNL Financial have been excluded from the analysis.