El Paso Electric Company

Natural Gas Utilities
(Valuation Metrics)

		Earnings per Share[1]																
Line	Company	16-Year Average	2021 [2]	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1	Atmos Energy	3.01	5.10	4.72	4.35	4.00	3.60	3.38	3.09	2.96	2.50	2.10	2.26	2.16	1.97	2.00	1.94	2.00
2	Chesapeake Utilities	2.49	4.55	4.21	3.72	3.45	2.68	2.86	2.68	2.47	2.26	1.99	1.91	1.82	1.43	1.39	1.29	1.15
3	New Jersey Resources	1.60	2.15	2.07	1.96	2.72	1.73	1.61	1.78	2.08	1.37	1.36	1.29	1.23	1.20	1.35	0.78	0.93
4	NiSource Inc.	1.16	1.40	1.32	1.31	1.30	0.39	1.00	0.63	1.67	1.57	1.37	1.05	1.06	0.84	1.34	1.14	1.14
5	Northwest Nat. Gas	2.11	2.55	2.30	2.19	2.33	-1.94	2.12	1.96	2.16	2.24	2.22	2.39	2.73	2.83	2.57	2.76	2.35
6	ONE Gas Inc.	3.03	3.80	3.68	3.51	3.25	3.02	2.65	2.24	2.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	1.37	1.80	1.68	1.12	1.38	1.23	1.34	1.44	1.57	1.52	1.52	1.45	1.35	1.19	1.14	1.05	1.23
8	Southwest Gas	2.93	4.50	4.14	3.94	3.68	3.62	3.18	2.92	3.01	3.11	2.86	2.43	2.27	1.94	1.39	1.95	1.98
9	Spire Inc.	2.93	5.00	1.44	3.52	4.33	3.43	3.24	3.16	2.35	2.02	2.79	2.86	2.43	2.92	2.64	2.31	2.37
10	UGI Corp.	1.87	3.00	2.67	2.28	2.74	2.29	2.05	2.01	1.92	1.59	1.17	1.37	1.59	1.57	1.33	1.18	1.10
11	WGL Holdings Inc.	2.56	N/A	N/A	N/A	N/A	3.11	3.27	3.16	2.68	2.31	2.68	2.25	2.27	2.53	2.44	2.09	1.94
12	**Average**	**2.23**	**3.39**	**2.82**	**2.79**	**2.92**	**2.11**	**2.43**	**2.28**	**2.27**	**2.05**	**2.01**	**1.93**	**1.89**	**1.84**	**1.76**	**1.65**	**1.62**
13	**Industry Average Growth**	**5.58%**	**19.91%**	**1.18%**	**-4.39%**	**38.59%**	**-13.26%**	**6.50%**	**0.54%**	**10.67%**	**2.13%**	**4.13%**	**1.87%**	**2.61%**	**4.79%**	**6.67%**	**1.82%**	

Sources:
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
[2] The Value Line Investment Survey, May 28, 2021.

El Paso Electric Company

Natural Gas Utilities
(Valuation Metrics)

Line	Company	Cash Flow / Capital Spending 2019 (1)	2020 (2)	2021 (3)	3 - 5 yr Projection (4)
1	Atmos Energy	0.53x	0.53x	0.53x	0.68x
2	Chesapeake Utilities	0.66x	0.64x	0.82x	0.88x
3	New Jersey Resources	1.41x	0.65x	0.72x	0.98x
4	NiSource Inc.	0.66x	0.65x	0.69x	0.94x
5	Northwest Nat. Gas	0.77x	0.75x	0.61x	0.73x
6	ONE Gas Inc.	0.78x	0.88x	0.86x	1.02x
7	South Jersey Inds.	0.48x	0.47x	0.49x	0.50x
8	Southwest Gas	0.62x	0.53x	0.61x	0.53x
9	Spire Inc.	0.65x	0.65x	0.70x	0.90x
10	UGI Corp.	1.33x	1.54x	1.66x	1.75x
11	Average	0.79x	0.73x	0.77x	0.89x
12	Median	0.66x	0.65x	0.69x	0.89x

Sources:
The Value Line Investment Survey Investment Analyzer Software, downloaded on June 17, 2021.
The Value Line Investment Survey, Feb 26, 2021.
Notes:
Based on the projected Cash Flow per share and Capital Spending per share.

El Paso Electric Company

Natural Gas Utilities
(Valuation Metrics)

Percent Dividends to Book Value [1]

Line	Company	16-Year Average (1)	2021 [2/a] (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
1	Atmos Energy	5.09%	4.02%	4.26%	4.36%	4.53%	4.90%	5.04%	4.96%	4.81%	4.92%	5.28%	5.44%	5.55%	5.61%	5.75%	5.82%	6.25%
2	Chesapeake Utilities	5.22%	4.37%	4.23%	4.53%	4.39%	4.23%	4.35%	4.78%	5.18%	5.25%	5.39%	5.42%	5.49%	5.60%	6.71%	6.66%	6.95%
3	New Jersey Resources	7.11%	6.60%	6.60%	6.85%	6.87%	7.26%	7.21%	7.16%	7.45%	7.60%	7.86%	7.69%	7.72%	7.48%	6.42%	6.54%	6.40%
4	NiSource Inc.	5.59%	6.67%	6.64%	5.99%	5.96%	5.46%	5.08%	6.89%	5.22%	5.22%	5.25%	5.19%	5.22%	5.25%	5.34%	4.97%	5.02%
5	Northwest Nat. Gas	6.53%	5.67%	6.57%	6.69%	7.16%	7.27%	6.30%	6.53%	6.58%	6.59%	6.57%	6.55%	6.44%	6.43%	6.41%	6.39%	6.32%
6	ONE Gas Inc.	4.28%	5.23%	5.14%	4.96%	4.73%	4.48%	3.88%	3.41%	2.44%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	6.94%	6.87%	7.21%	7.53%	7.63%	7.34%	6.53%	6.98%	7.04%	7.12%	7.09%	7.26%	7.13%	6.69%	6.40%	6.22%	6.09%
8	Southwest Gas	4.42%	4.74%	4.87%	4.79%	4.90%	5.25%	5.14%	4.82%	4.57%	4.33%	4.16%	3.98%	3.90%	3.89%	3.83%	3.74%	3.80%
9	Spire Inc.	5.84%	4.78%	5.63%	5.25%	5.06%	5.09%	5.06%	5.07%	5.04%	5.31%	6.22%	6.30%	6.53%	6.56%	6.74%	7.33%	7.43%
10	UGI Corp.	5.68%	6.25%	6.65%	6.30%	4.82%	5.28%	5.65%	5.72%	5.14%	5.07%	5.35%	5.77%	5.41%	5.35%	5.72%	5.82%	6.54%
11	WGL Holdings Inc.	6.86%	N/A	N/A	N/A	N/A	6.88%	7.21%	7.33%	7.14%	6.73%	6.45%	6.60%	6.57%	6.72%	6.71%	6.88%	7.13%
12	Average	5.83%	5.52%	5.78%	5.72%	5.60%	5.77%	5.59%	5.78%	5.51%	5.82%	5.96%	6.02%	6.00%	5.96%	6.00%	6.04%	6.19%
13	Median	5.76%	5.45%	6.10%	5.62%	4.98%	5.28%	5.14%	5.72%	5.18%	5.28%	5.80%	6.03%	5.99%	6.02%	6.41%	6.30%	6.36%

Dividends to Earnings Ratio [1]

Line	Company	16-Year Average (1)	2021 [2/b] (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
14	Atmos Energy	0.56	0.49	0.49	0.48	0.49	0.50	0.50	0.50	0.50	0.56	0.66	0.60	0.62	0.67	0.65	0.66	0.63
15	Chesapeake Utilities	0.48	0.40	0.40	0.42	0.40	0.47	0.42	0.42	0.43	0.45	0.48	0.48	0.48	0.58	0.58	0.61	0.67
16	New Jersey Resources	0.55	0.62	0.61	0.61	0.41	0.60	0.61	0.52	0.41	0.59	0.57	0.56	0.55	0.52	0.41	0.65	0.51
17	NiSource Inc.	0.83	0.63	0.64	0.61	0.60	1.79	0.64	1.32	0.61	0.62	0.69	0.88	0.87	1.10	0.69	0.81	0.81
18	Northwest Nat. Gas	0.64	0.75	0.83	0.87	0.81	- 0.97	0.88	0.95	0.86	0.82	0.81	0.73	0.62	0.57	0.59	0.52	0.59
19	ONE Gas Inc.	0.54	0.61	0.59	0.57	0.57	0.56	0.53	0.54	0.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	South Jersey Inds.	0.64	0.69	0.71	1.04	0.82	0.89	0.79	0.71	0.61	0.59	0.54	0.52	0.50	0.51	0.49	0.48	0.37
21	Southwest Gas	0.50	0.53	0.55	0.55	0.57	0.55	0.57	0.55	0.49	0.42	0.41	0.44	0.44	0.49	0.65	0.44	0.41
22	Spire Inc.	0.68	0.52	1.73	0.67	0.52	0.61	0.60	0.58	0.75	0.84	0.59	0.56	0.65	0.52	0.56	0.63	0.59
23	UGI Corp.	0.44	0.45	0.49	0.50	0.37	0.42	0.45	0.44	0.41	0.46	0.60	0.50	0.38	0.33	0.38	0.41	0.41
24	WGL Holdings Inc.	0.64	N/A	N/A	N/A	N/A	0.65	0.59	0.58	0.64	0.72	0.59	0.69	0.66	0.58	0.58	0.65	0.69
25	Average	0.59	0.57	0.70	0.63	0.55	0.55	0.60	0.65	0.56	0.61	0.59	0.59	0.58	0.59	0.56	0.59	0.57
26	Median	0.58	0.57	0.60	0.59	0.54	0.56	0.59	0.55	0.50	0.59	0.59	0.56	0.58	0.54	0.58	0.62	0.59

Cash Flow to Capital Spending Ratio [1]

Line	Company	16-Year Average (1)	2021 [2/c] (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
27	Atmos Energy	0.66	0.54	0.52	0.53	0.55	0.62	0.59	0.60	0.65	0.55	0.59	0.68	0.77	0.78	0.81	0.94	0.82
28	Chesapeake Utilities	0.73	0.82	0.78	0.62	0.39	0.50	0.50	0.53	0.71	0.65	0.79	1.12	1.10	1.14	0.83	0.82	0.45
29	New Jersey Resources	1.27	0.84	0.71	0.51	0.85	0.70	0.59	0.67	1.79	1.46	1.48	1.51	1.55	1.75	2.11	1.67	2.14
30	NiSource Inc.	0.76	0.69	0.66	0.61	0.58	0.41	0.59	0.53	0.56	0.57	0.65	0.75	1.11	1.06	0.94	1.11	1.37
31	Northwest Nat. Gas	0.94	0.69	0.66	0.69	0.71	0.14	1.01	1.12	1.15	0.98	1.01	1.33	0.55	1.02	1.35	1.21	1.34
32	ONE Gas Inc.	0.86	0.86	0.83	0.89	0.84	0.87	0.92	0.86	0.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	South Jersey Inds.	0.82	0.50	0.54	0.40	0.73	0.81	0.76	0.50	0.53	0.51	0.58	0.70	0.75	1.01	1.67	1.70	1.40
34	Southwest Gas	0.85	0.77	0.69	0.53	0.56	0.68	0.83	0.84	0.99	1.05	0.90	0.82	1.37	1.28	0.85	0.78	0.72
35	Spire Inc.	1.07	0.81	0.42	0.44	0.77	0.72	0.96	0.92	0.98	0.78	0.95	1.53	1.61	1.93	1.64	1.42	1.28
36	UGI Corp.	1.49	1.69	1.59	1.22	1.64	1.29	1.35	1.48	1.53	1.32	1.52	1.28	1.36	1.52	1.72	1.62	1.69
37	WGL Holdings Inc.	1.02	N/A	N/A	N/A	N/A	0.61	0.56	0.60	0.63	0.71	0.93	1.02	1.60	1.60	1.60	1.17	1.18
38	Average	0.96	0.82	0.74	0.64	0.76	0.67	0.79	0.79	0.94	0.86	0.94	1.07	1.18	1.31	1.35	1.24	1.24
39	Median	0.79	0.79	0.67	0.57	0.72	0.68	0.76	0.67	0.79	0.74	0.92	1.07	1.23	1.21	1.48	1.19	1.31

Sources:
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
[2] The Value Line Investment Survey, May 28, 2021.

Notes:
[a] Based on the projected Dividends Declared per share and Book Value per share, published in The Value Line Investment Survey.
[b] Based on the projected Dividends Declared per share and Earnings per share, published in The Value Line Investment Survey.
[c] Based on the projected Cash Flow per share and Capital Spending per share, published in The Value Line Investment Survey.

El Paso Electric Company

Proxy Group

Line	Company	Credit Ratings[1] S&P (1)	Credit Ratings[1] Moody's (2)	Common Equity Ratios MI[1] (3)	Common Equity Ratios Value Line[2] (4)
1	ALLETE, Inc.	BBB	Baa1	49.7%	59.0%
2	Alliant Energy Corporation	A-	Baa2	43.5%	45.7%
3	Ameren Corporation	BBB+	Baa1	43.3%	44.3%
4	American Electric Power Company, Inc.	A-	Baa2	37.0%	41.5%
5	Avista Corporation	BBB	Baa2	46.0%	49.6%
6	CMS Energy Corporation	BBB+	Baa2	25.8%	28.6%
7	DTE Energy Company	BBB+	Baa2	38.5%	39.5%
8	Entergy Corporation	BBB+	Baa2	30.8%	33.7%
9	Evergy, Inc.	A-	Baa2	45.5%	48.7%
10	Hawaiian Electric Industries, Inc.	BBB-	N/A	48.9%	52.7%
11	IDACORP, Inc.	BBB	Baa1	56.1%	56.1%
12	NextEra Energy, Inc.	A-	Baa1	39.0%	46.5%
13	NorthWestern Corporation	BBB	Baa2	46.1%	47.2%
14	OGE Energy Corp.	BBB+	Baa1	50.0%	51.0%
15	Otter Tail Corporation	BBB	Baa2	50.2%	58.2%
16	Pinnacle West Capital Corporation	A-	A3	44.5%	47.2%
17	Portland General Electric Company	BBB+	A3	43.6%	46.4%
18	Southern Company	A-	Baa2	33.5%	38.1%
19	WEC Energy Group, Inc.	A-	Baa1	41.9%	47.1%
20	Xcel Energy Inc.	A-	Baa1	39.5%	42.6%
21	**Average**	**BBB+**	**Baa1**	**42.7%**	**46.2%**
22	**El Paso Electric Company**	**NA[3]**	**Baa2**		**51%[4]**

Sources:

[1] S&P Global Market Intelligence, Downloaded on September 13, 2021.

[2] *The Value Line Investment Survey*, June 11, July 23, and August 13, 2021.

[3] El Paso Electric Company is not rated by S&P.

[4] Nelson Direct at 2 of 65.

El Paso Electric Company

Consensus Analysts' Growth Rates

Line	Company	Zacks Estimated Growth %[1] (1)	Zacks Number of Estimates (2)	MI Estimated Growth %[2] (3)	MI Number of Estimates (4)	Yahoo! Finance Estimated Growth %[3] (5)	Yahoo! Finance Number of Estimates (6)	Average of Growth Rates (7)
1	ALLETE, Inc.	6.00%	N/A	5.75%	4	5.67%	N/A	5.81%
2	Alliant Energy Corporation	5.60%	N/A	6.10%	3	5.80%	N/A	5.83%
3	Ameren Corporation	7.30%	N/A	7.17%	4	7.70%	N/A	7.39%
4	American Electric Power Company, Inc.	5.70%	N/A	5.89%	4	6.03%	N/A	5.87%
5	Avista Corporation	5.10%	N/A	5.08%	3	6.20%	N/A	5.46%
6	CMS Energy Corporation	6.90%	N/A	7.20%	6	6.20%	N/A	6.77%
7	DTE Energy Company	6.00%	N/A	6.00%	3	2.65%	N/A	4.88%
8	Entergy Corporation	1.40%	N/A	3.67%	2	3.85%	N/A	2.97%
9	Evergy, Inc.	5.80%	N/A	6.33%	3	5.70%	N/A	5.94%
10	Hawaiian Electric Industries, Inc.	7.30%	N/A	7.63%	2	1.30%	N/A	5.41%
11	IDACORP, Inc.	3.90%	N/A	3.53%	4	3.20%	N/A	3.54%
12	NextEra Energy, Inc.	8.30%	N/A	8.31%	6	7.85%	N/A	8.15%
13	NorthWestern Corporation	4.80%	N/A	4.99%	4	4.50%	N/A	4.76%
14	OGE Energy Corp.	4.50%	N/A	2.44%	3	3.90%	N/A	3.61%
15	Otter Tail Corporation	4.70%	N/A	7.53%	3	9.00%	N/A	7.08%
16	Pinnacle West Capital Corporation	5.00%	N/A	2.78%	3	0.10%	N/A	2.63%
17	Portland General Electric Company	8.60%	N/A	5.80%	4	7.10%	N/A	7.17%
18	Southern Company	4.90%	N/A	5.53%	4	6.50%	N/A	5.64%
19	WEC Energy Group, Inc.	6.30%	N/A	6.38%	4	6.50%	N/A	6.39%
20	Xcel Energy Inc.	6.10%	N/A	6.18%	5	6.30%	N/A	6.19%
21	**Average**	**5.71%**	**N/A**	**5.71%**	**4**	**5.30%**	**N/A**	**5.58%**

Sources:
[1] Zacks, http://www.zacks.com/, downloaded on September 10, 2021.
[2] S&P Global Market Intelligence, https://platform.mi.spglobal.com, downloaded on September 10, 2021.
[3] Yahoo! Finance, https://finance.yahoo.com/, downloaded on September 10, 2021.

El Paso Electric Company

Constant Growth DCF Model
(Consensus Analysts' Growth Rates)

Line	Company	13-Week AVG Stock Price[1] (1)	Analysts' Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	ALLETE, Inc.	$69.48	5.81%	$2.52	3.84%	9.64%
2	Alliant Energy Corporation	$59.02	5.83%	$1.61	2.89%	8.72%
3	Ameren Corporation	$85.17	7.39%	$2.20	2.77%	10.16%
4	American Electric Power Company, Inc.	$87.38	5.87%	$2.96	3.59%	9.46%
5	Avista Corporation	$42.78	5.46%	$1.69	4.17%	9.63%
6	CMS Energy Corporation	$61.97	6.77%	$1.74	3.00%	9.76%
7	DTE Energy Company	$120.76	4.88%	$4.34	3.77%	8.65%
8	Entergy Corporation	$106.38	2.97%	$3.80	3.68%	6.65%
9	Evergy, Inc.	$65.28	5.94%	$2.14	3.47%	9.42%
10	Hawaiian Electric Industries, Inc.	$43.15	5.41%	$1.36	3.32%	8.73%
11	IDACORP, Inc.	$103.62	3.54%	$2.84	2.84%	6.38%
12	NextEra Energy, Inc.	$79.19	8.15%	$1.54	2.10%	10.26%
13	NorthWestern Corporation	$62.53	4.76%	$2.48	4.15%	8.92%
14	OGE Energy Corp.	$34.65	3.61%	$1.61	4.81%	8.43%
15	Otter Tail Corporation	$51.42	7.08%	$1.56	3.25%	10.33%
16	Pinnacle West Capital Corporation	$81.43	2.63%	$3.32	4.18%	6.81%
17	Portland General Electric Company	$49.02	7.17%	$1.72	3.76%	10.93%
18	Southern Company	$63.96	5.64%	$2.64	4.36%	10.00%
19	WEC Energy Group, Inc.	$93.85	6.39%	$2.71	3.07%	9.47%
20	Xcel Energy Inc.	$68.36	6.19%	$1.83	2.84%	9.04%
21	**Average**	**$71.47**	**5.58%**	**$2.33**	**3.49%**	**9.07%**
22	**Median**	**$66.82**	**5.82%**	**$2.17**	**3.53%**	**9.44%**

Sources:
[1] S&P Global Market Intelligence, Downloaded on September 13, 2021.
[2] Exhibit MPG-4.
[3] *The Value Line Investment Survey* , June 11, July 23, and August 13, 2021.

El Paso Electric Company

Payout Ratios

Line	Company	Dividends Per Share		Earnings Per Share		Payout Ratio	
		2020	Projected	2020	Projected	2020	Projected
		(1)	(2)	(3)	(4)	(5)	(6)
1	ALLETE, Inc.	$2.47	$2.90	$3.35	$4.50	73.73%	64.44%
2	Alliant Energy Corporation	$1.52	$2.05	$2.47	$3.25	61.54%	63.08%
3	Ameren Corporation	$2.00	$2.90	$3.50	$5.00	57.14%	58.00%
4	American Electric Power Company, Inc.	$2.84	$3.75	$4.42	$6.00	64.25%	62.50%
5	Avista Corporation	$1.62	$2.00	$1.90	$2.75	85.26%	72.73%
6	CMS Energy Corporation	$1.63	$2.30	$2.64	$3.75	61.74%	61.33%
7	DTE Energy Company	$4.12	$5.55	$7.08	$9.25	58.19%	60.00%
8	Entergy Corporation	$3.74	$4.80	$6.90	$7.50	54.20%	64.00%
9	Evergy, Inc.	$2.05	$2.65	$2.72	$4.25	75.37%	62.35%
10	Hawaiian Electric Industries, Inc.	$1.32	$1.55	$1.81	$2.50	72.93%	62.00%
11	IDACORP, Inc.	$2.72	$3.70	$4.69	$5.75	58.00%	64.35%
12	NextEra Energy, Inc.	$1.40	$2.25	$2.10	$3.50	66.67%	64.29%
13	NorthWestern Corporation	$2.40	$2.80	$3.06	$4.00	78.43%	70.00%
14	OGE Energy Corp.	$1.58	$1.95	$2.08	$2.75	75.96%	70.91%
15	Otter Tail Corporation	$1.48	$1.95	$2.34	$3.25	63.25%	60.00%
16	Pinnacle West Capital Corporation	$3.23	$4.25	$4.87	$6.50	66.32%	65.38%
17	Portland General Electric Company	$1.59	$2.10	$1.72	$3.50	92.44%	60.00%
18	Southern Company	$2.54	$2.94	$3.25	$4.50	78.15%	65.33%
19	WEC Energy Group, Inc.	$2.53	$3.45	$3.79	$5.25	66.75%	65.71%
20	Xcel Energy Inc.	$1.72	$2.30	$2.79	$3.75	61.65%	61.33%
21	**Average**	**$2.23**	**$2.91**	**$3.37**	**$4.58**	**68.60%**	**63.89%**

Source:
The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

El Paso Electric Company

Sustainable Growth Rate

Line	Company	3 to 5 Year Projections										Sustainable
		Dividends Per Share (1)	Earnings Per Share (2)	Book Value Per Share (3)	Book Value Growth (4)	ROE (5)	Adjustment Factor (6)	Adjusted ROE (7)	Payout Ratio (8)	Retention Rate (9)	Internal Growth Rate (10)	Growth Rate (11)
1	ALLETE, Inc.	$2.90	$4.50	$51.50	3.18%	8.74%	1.02	8.87%	64.44%	35.56%	3.16%	3.57%
2	Alliant Energy Corporation	$2.05	$3.25	$30.00	5.68%	10.83%	1.03	11.13%	63.08%	36.92%	4.11%	6.60%
3	Ameren Corporation	$2.90	$5.00	$47.75	6.23%	10.47%	1.03	10.79%	58.00%	42.00%	4.53%	7.39%
4	American Electric Power Company, Inc.	$3.75	$6.00	$55.25	5.95%	10.86%	1.03	11.17%	62.50%	37.50%	4.19%	6.48%
5	Avista Corporation	$2.00	$2.75	$33.50	2.71%	8.21%	1.01	8.32%	72.73%	27.27%	2.27%	3.01%
6	CMS Energy Corporation	$2.30	$3.75	$27.75	7.85%	13.51%	1.04	14.02%	61.33%	38.67%	5.42%	8.03%
7	DTE Energy Company	$5.55	$9.25	$82.00	5.04%	11.28%	1.02	11.56%	60.00%	40.00%	4.62%	5.71%
8	Entergy Corporation	$4.80	$7.50	$69.00	4.81%	10.87%	1.02	11.12%	64.00%	36.00%	4.00%	5.10%
9	Evergy, Inc.	$2.65	$4.25	$45.50	3.40%	9.34%	1.02	9.50%	62.35%	37.65%	3.58%	3.77%
10	Hawaiian Electric Industries, Inc.	$1.55	$2.50	$25.75	3.76%	9.71%	1.02	9.89%	62.00%	38.00%	3.76%	4.46%
11	IDACORP, Inc.	$3.70	$5.75	$60.75	3.67%	9.47%	1.02	9.64%	64.35%	35.65%	3.44%	3.44%
12	NextEra Energy, Inc.	$2.25	$3.50	$25.75	6.69%	13.59%	1.03	14.03%	64.29%	35.71%	5.01%	7.14%
13	NorthWestern Corporation	$2.80	$4.00	$47.75	3.04%	8.38%	1.01	8.50%	70.00%	30.00%	2.55%	3.33%
14	OGE Energy Corp.	$1.95	$2.75	$22.50	4.39%	12.22%	1.02	12.48%	70.91%	29.09%	3.63%	3.63%
15	Otter Tail Corporation	$1.95	$3.25	$26.50	4.76%	12.26%	1.02	12.55%	60.00%	40.00%	5.02%	5.39%
16	Pinnacle West Capital Corporation	$4.25	$6.50	$61.50	4.24%	10.57%	1.02	10.79%	65.38%	34.62%	3.73%	4.52%
17	Portland General Electric Company	$2.10	$3.50	$34.75	3.56%	10.07%	1.02	10.25%	60.00%	40.00%	4.10%	4.17%
18	Southern Company	$2.94	$4.50	$32.50	4.18%	13.85%	1.02	14.13%	65.33%	34.67%	4.90%	6.17%
19	WEC Energy Group, Inc.	$3.45	$5.25	$40.25	3.93%	13.04%	1.02	13.30%	65.71%	34.29%	4.56%	4.56%
20	Xcel Energy Inc.	$2.30	$3.75	$34.50	4.93%	10.87%	1.02	11.13%	61.33%	38.67%	4.30%	5.17%
21	**Average**	**$2.91**	**$4.58**	**$42.74**	**4.60%**	**10.91%**	**1.02**	**11.16%**	**63.89%**	**36.11%**	**4.04%**	**5.08%**

Sources and Notes:
Cols. (1), (2) and (3): *The Value Line Investment Survey*, June 11, July 23, and August 13, 2021.
Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/number of years projected) - 1.
Col. (5): Col. (2) / Col. (3).
Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).
Col. (7): Col. (6) * Col. (5).
Col. (8): Col. (1) / Col. (2).
Col. (9): 1 - Col. (8).
Col. (10): Col. (9) * Col. (7).
Col. (11): Col. (10) + Page 2 Col. (9).

El Paso Electric Company

Sustainable Growth Rate

Line	Company	13-Week Average Stock Price[1] (1)	2020 Book Value Per Share[2] (2)	Market to Book Ratio (3)	Common Shares Outstanding (in Millions)[2] 2020 (4)	Common Shares Outstanding (in Millions)[2] 3-5 Years (5)	Growth (6)	S Factor[3] (7)	V Factor[4] (8)	S * V (9)
1	ALLETE, Inc.	$69.48	$44.04	1.58	52.10	54.00	0.72%	1.13%	36.61%	0.42%
2	Alliant Energy Corporation	$59.02	$22.76	2.59	249.87	270.00	1.56%	4.05%	61.43%	2.49%
3	Ameren Corporation	$85.17	$35.29	2.41	253.30	280.00	2.02%	4.89%	58.56%	2.86%
4	American Electric Power Company, Inc.	$87.38	$41.38	2.11	496.60	550.00	2.06%	4.36%	52.64%	2.29%
5	Avista Corporation	$42.78	$29.31	1.46	69.24	75.00	1.61%	2.35%	31.49%	0.74%
6	CMS Energy Corporation	$61.97	$19.02	3.26	288.94	306.00	1.15%	3.76%	69.31%	2.61%
7	DTE Energy Company	$120.76	$64.12	1.88	193.77	206.00	1.23%	2.32%	46.90%	1.09%
8	Entergy Corporation	$106.38	$54.56	1.95	200.24	212.00	1.15%	2.24%	48.71%	1.09%
9	Evergy, Inc.	$65.28	$38.50	1.70	226.84	230.00	0.28%	0.47%	41.03%	0.19%
10	Hawaiian Electric Industries, Inc.	$43.15	$21.41	2.02	109.18	113.00	0.69%	1.39%	50.38%	0.70%
11	IDACORP, Inc.	$103.62	$50.73	2.04	50.46	50.45	- 0.00%	- 0.01%	51.04%	- 0.00%
12	NextEra Energy, Inc.	$79.19	$18.63	4.25	1,960.00	2,025.00	0.65%	2.78%	76.47%	2.13%
13	NorthWestern Corporation	$62.53	$41.10	1.52	50.59	54.50	1.50%	2.28%	34.27%	0.78%
14	OGE Energy Corp.	$34.65	$18.15	1.91	200.10	200.10	0.00%	0.00%	47.62%	0.00%
15	Otter Tail Corporation	$51.42	$21.00	2.45	41.47	42.00	0.25%	0.62%	59.16%	0.37%
16	Pinnacle West Capital Corporation	$81.43	$49.96	1.63	112.76	120.00	1.25%	2.04%	38.65%	0.79%
17	Portland General Electric Company	$49.02	$29.18	1.68	89.54	90.00	0.10%	0.17%	40.47%	0.07%
18	Southern Company	$63.96	$26.48	2.42	1,056.50	1,105.00	0.90%	2.18%	58.60%	1.28%
19	WEC Energy Group, Inc.	$93.85	$33.19	2.83	315.43	315.43	0.00%	0.00%	64.64%	0.00%
20	Xcel Energy Inc.	$68.36	$27.12	2.52	537.44	553.00	0.57%	1.44%	60.33%	0.87%
21	**Average**	**$71.47**	**$34.30**	**2.21**	**327.72**	**342.57**	**0.93%**	**2.03%**	**51.42%**	**1.09%**

Sources and Notes:
[1] S&P Global Market Intelligence, Downloaded on September 13, 2021.
[2] *The Value Line Investment Survey*, June 11, July 23, and August 13, 2021.
[3] Expected Growth in the Number of Shares, Column (3) * Column (6).
[4] Expected Profit of Stock Investment, [1 - 1 / Column (3)].

El Paso Electric Company

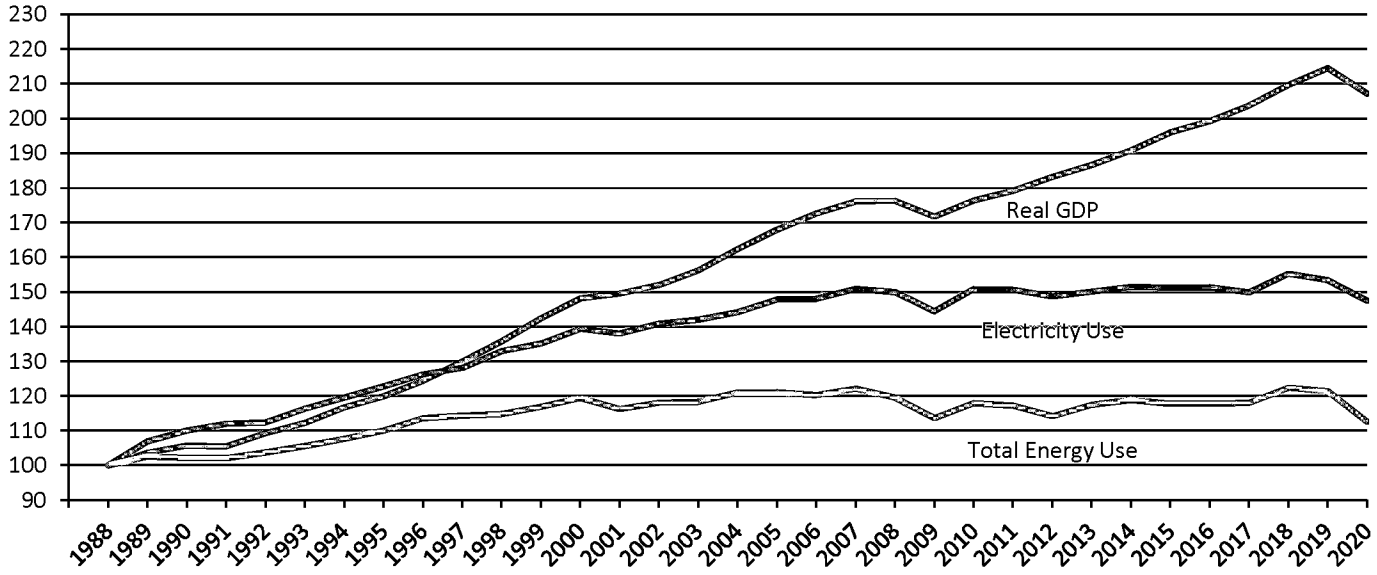
Constant Growth DCF Model
(Sustainable Growth Rate)

Line	Company	13-Week AVG Stock Price[1] (1)	Sustainable Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	ALLETE, Inc.	$69.48	3.57%	$2.52	3.76%	7.33%
2	Alliant Energy Corporation	$59.02	6.60%	$1.61	2.91%	9.51%
3	Ameren Corporation	$85.17	7.39%	$2.20	2.77%	10.17%
4	American Electric Power Company, Inc.	$87.38	6.48%	$2.96	3.61%	10.09%
5	Avista Corporation	$42.78	3.01%	$1.69	4.07%	7.08%
6	CMS Energy Corporation	$61.97	8.03%	$1.74	3.03%	11.06%
7	DTE Energy Company	$120.76	5.71%	$4.34	3.80%	9.51%
8	Entergy Corporation	$106.38	5.10%	$3.80	3.75%	8.85%
9	Evergy, Inc.	$65.28	3.77%	$2.14	3.40%	7.17%
10	Hawaiian Electric Industries, Inc.	$43.15	4.46%	$1.36	3.29%	7.75%
11	IDACORP, Inc.	$103.62	3.44%	$2.84	2.84%	6.27%
12	NextEra Energy, Inc.	$79.19	7.14%	$1.54	2.08%	9.22%
13	NorthWestern Corporation	$62.53	3.33%	$2.48	4.10%	7.43%
14	OGE Energy Corp.	$34.65	3.63%	$1.61	4.81%	8.45%
15	Otter Tail Corporation	$51.42	5.39%	$1.56	3.20%	8.59%
16	Pinnacle West Capital Corporation	$81.43	4.52%	$3.32	4.26%	8.78%
17	Portland General Electric Company	$49.02	4.17%	$1.72	3.66%	7.82%
18	Southern Company	$63.96	6.17%	$2.64	4.38%	10.56%
19	WEC Energy Group, Inc.	$93.85	4.56%	$2.71	3.02%	7.58%
20	Xcel Energy Inc.	$68.36	5.17%	$1.83	2.82%	7.99%
21	**Average**	**$71.47**	**5.08%**	**$2.33**	**3.48%**	**8.56%**
22	**Median**	**$66.82**	**4.83%**	**$2.17**	**3.50%**	**8.52%**

Sources:
[1] S&P Global Market Intelligence, Downloaded on September 13, 2021.
[2] Exhibit MPG-7.
[3] *The Value Line Investment Survey*, June 11, July 23, and August 13, 2021.

El Paso Electric Company

Electricity Sales Are Linked to U.S. Economic Growth



Note:
1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:
U.S. Energy Information Administration
Federal Reserve Bank of St. Louis

El Paso Electric Company

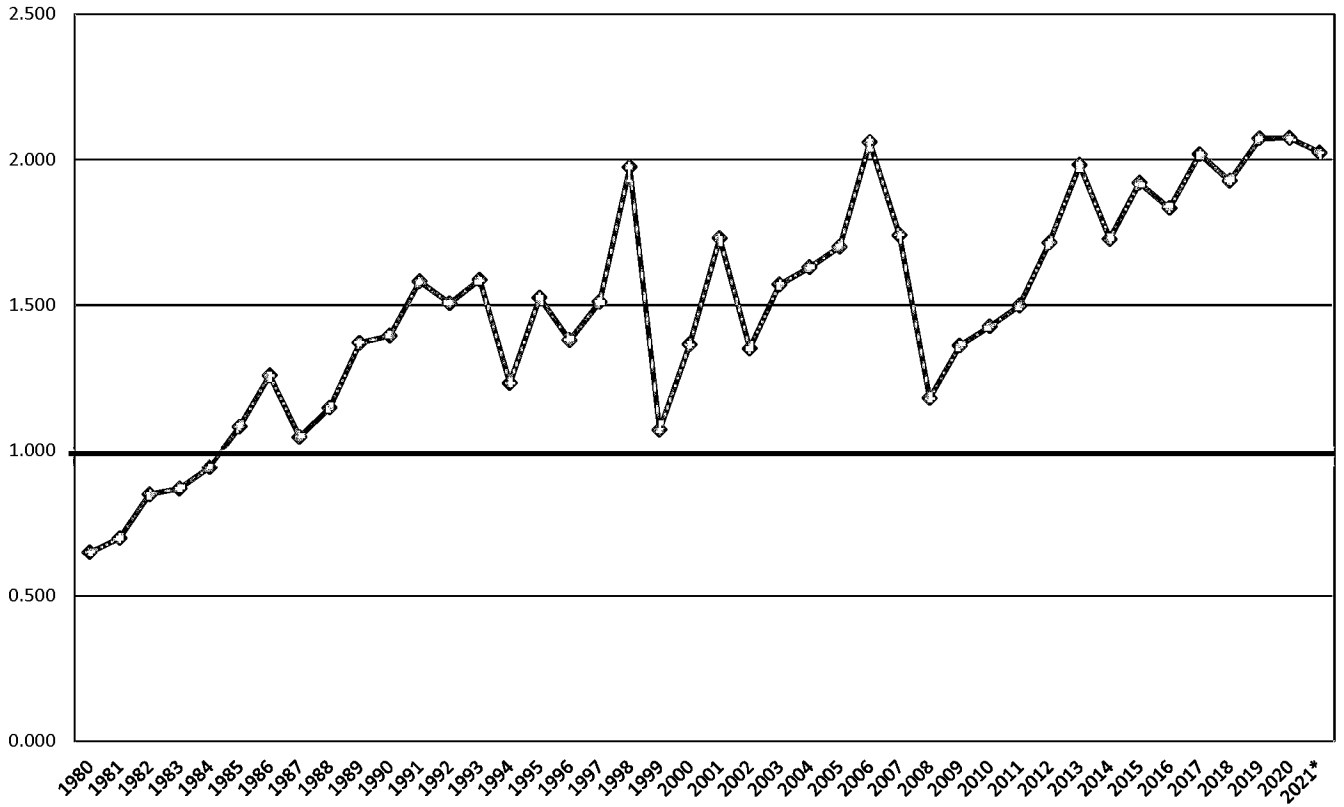
Multi-Stage Growth DCF Model

Line	Company	13-Week AVG Stock Price[1] (1)	Annualized Dividend[2] (2)	First Stage Growth[3] (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth[4] (9)	Multi-Stage Growth DCF (10)
1	ALLETE, Inc.	$69.48	$2.52	5.81%	5.56%	5.32%	5.08%	4.83%	4.59%	4.35%	8.49%
2	Alliant Energy Corporation	$59.02	$1.61	5.83%	5.59%	5.34%	5.09%	4.84%	4.59%	4.35%	7.48%
3	Ameren Corporation	$85.17	$2.20	7.39%	6.88%	6.38%	5.87%	5.36%	4.85%	4.35%	7.62%
4	American Electric Power Company, Inc.	$87.38	$2.96	5.87%	5.62%	5.36%	5.11%	4.86%	4.60%	4.35%	8.24%
5	Avista Corporation	$42.78	$1.69	5.46%	5.27%	5.09%	4.90%	4.72%	4.53%	4.35%	8.76%
6	CMS Energy Corporation	$61.97	$1.74	6.77%	6.36%	5.96%	5.56%	5.15%	4.75%	4.35%	7.76%
7	DTE Energy Company	$120.76	$4.34	4.88%	4.79%	4.70%	4.61%	4.53%	4.44%	4.35%	8.22%
8	Entergy Corporation	$106.38	$3.80	2.97%	3.20%	3.43%	3.66%	3.89%	4.12%	4.35%	7.75%
9	Evergy, Inc.	$65.28	$2.14	5.94%	5.68%	5.41%	5.14%	4.88%	4.61%	4.35%	8.13%
10	Hawaiian Electric Industries, Inc.	$43.15	$1.36	5.41%	5.23%	5.06%	4.88%	4.70%	4.52%	4.35%	7.86%
11	IDACORP, Inc.	$103.62	$2.84	3.54%	3.68%	3.81%	3.94%	4.08%	4.21%	4.35%	7.04%
12	NextEra Energy, Inc.	$79.19	$1.54	8.15%	7.52%	6.88%	6.25%	5.62%	4.98%	4.35%	6.93%
13	NorthWestern Corporation	$62.53	$2.48	4.76%	4.69%	4.62%	4.55%	4.49%	4.42%	4.35%	8.59%
14	OGE Energy Corp.	$34.65	$1.61	3.61%	3.74%	3.86%	3.98%	4.10%	4.22%	4.35%	8.98%
15	Otter Tail Corporation	$51.42	$1.56	7.08%	6.62%	6.17%	5.71%	5.26%	4.80%	4.35%	8.11%
16	Pinnacle West Capital Corporation	$81.43	$3.32	2.63%	2.91%	3.20%	3.49%	3.77%	4.06%	4.35%	8.15%
17	Portland General Electric Company	$49.02	$1.72	7.17%	6.70%	6.23%	5.76%	5.29%	4.82%	4.35%	8.71%
18	Southern Company	$63.96	$2.64	5.64%	5.43%	5.21%	4.99%	4.78%	4.56%	4.35%	9.01%
19	WEC Energy Group, Inc.	$93.85	$2.71	6.39%	6.05%	5.71%	5.37%	5.03%	4.69%	4.35%	7.78%
20	Xcel Energy Inc.	$68.36	$1.83	6.19%	5.89%	5.58%	5.27%	4.96%	4.65%	4.35%	7.49%
21	**Average**	**$71.47**	**$2.33**	**5.58%**	**5.37%**	**5.17%**	**4.96%**	**4.76%**	**4.55%**	**4.35%**	**8.06%**
22	**Median**										**8.12%**

Sources:
[1] S&P Global Market Intelligence, Downloaded on September 13, 2021.
[2] *The Value Line Investment Survey*, June 11, July 23, and August 13, 2021.
[3] Exhibit MPG-4.
[4] *Blue Chip Financial Forecasts*, June 1, 2021, at 2.

El Paso Electric Company

Common Stock Market/Book Ratio



Source:
1980 - 2000: Mergent Public Utility Manual.
2001 - 2015: AUS Utility Reports, multiple dates.
2016 - 2020: Value Line Investment Survey, multiple dates.
* Value Line Investment Survey Reports, May 28, June 11, July 23, and August 13, 2021.

El Paso Electric Company

Equity Risk Premium - Treasury Bond

Line	Year	Authorized Electric Returns[1] (1)	30 yr. Treasury Bond Yield[2] (2)	Indicated Risk Premium (3)	Rolling 5 - Year Average (4)	Rolling 10 - Year Average (5)
1	1986	13.93%	7.80%	6.13%		
2	1987	12.99%	8.58%	4.41%		
3	1988	12.79%	8.96%	3.83%		
4	1989	12.97%	8.45%	4.52%		
5	1990	12.70%	8.61%	4.09%	4.60%	
6	1991	12.55%	8.14%	4.41%	4.25%	
7	1992	12.09%	7.67%	4.42%	4.26%	
8	1993	11.41%	6.60%	4.81%	4.45%	
9	1994	11.34%	7.37%	3.97%	4.34%	
10	1995	11.55%	6.88%	4.67%	4.46%	4.53%
11	1996	11.39%	6.70%	4.69%	4.51%	4.38%
12	1997	11.40%	6.61%	4.79%	4.59%	4.42%
13	1998	11.66%	5.58%	6.08%	4.84%	4.65%
14	1999	10.77%	5.87%	4.90%	5.03%	4.68%
15	2000	11.43%	5.94%	5.49%	5.19%	4.82%
16	2001	11.09%	5.49%	5.60%	5.37%	4.94%
17	2002	11.16%	5.43%	5.73%	5.56%	5.07%
18	2003	10.97%	4.96%	6.01%	5.55%	5.19%
19	2004	10.75%	5.05%	5.70%	5.71%	5.37%
20	2005	10.54%	4.65%	5.89%	5.79%	5.49%
21	2006	10.34%	4.87%	5.47%	5.76%	5.57%
22	2007	10.31%	4.83%	5.48%	5.71%	5.64%
23	2008	10.37%	4.28%	6.09%	5.73%	5.64%
24	2009	10.52%	4.07%	6.45%	5.88%	5.79%
25	2010	10.29%	4.25%	6.04%	5.90%	5.85%
26	2011	10.19%	3.91%	6.28%	6.07%	5.91%
27	2012	10.01%	2.92%	7.09%	6.39%	6.05%
28	2013	9.81%	3.45%	6.36%	6.44%	6.09%
29	2014	9.75%	3.34%	6.41%	6.44%	6.16%
30	2015	9.60%	2.84%	6.76%	6.58%	6.24%
31	2016	9.60%	2.60%	7.00%	6.72%	6.40%
32	2017	9.68%	2.90%	6.79%	6.66%	6.53%
33	2018	9.55%	3.11%	6.44%	6.68%	6.56%
34	2019	9.64%	2.58%	7.06%	6.81%	6.62%
35	2020	9.39%	1.56%	7.83%	7.02%	6.80%
36	2021 [3]	9.45%	2.16%	7.29%	7.08%	6.90%
37	**Average**	**10.94%**	**5.25%**	**5.69%**	**5.64%**	**5.64%**
38	**Minimum**				**4.25%**	**4.38%**
39	**Maximum**				**7.08%**	**6.90%**

Sources:

[1] *Regulatory Research Associates, Inc.*, Regulatory Focus, Major Rate Case Decisions, Jan. 1997 p. 5, and Jan. 2011 p. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January - June 2021, July 27, 2021, p. 1.
2006 - 2021 Authorized Returns exclude limited issue rider cases.

[2] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/.
The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

[3] Data represents January - June, 2021.

El Paso Electric Company

Equity Risk Premium - Utility Bond

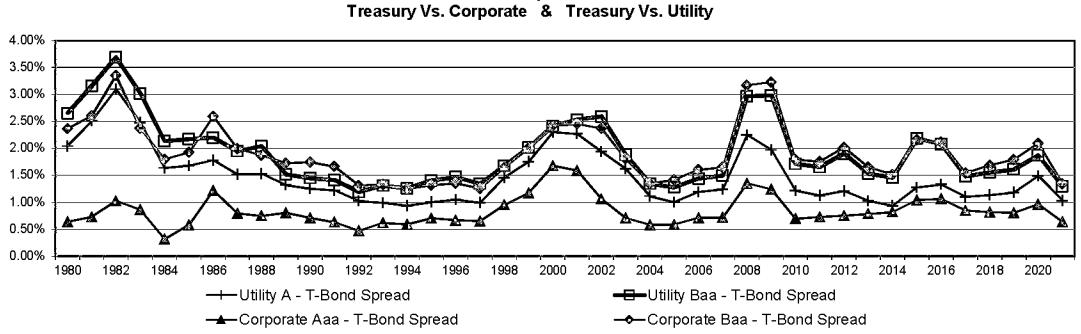
Line	Year	Authorized Electric Returns[1] (1)	Average "A" Rated Utility Bond Yield[2] (2)	Indicated Risk Premium (3)	Rolling 5 - Year Average (4)	Rolling 10 - Year Average (5)
1	1986	13.93%	9.58%	4.35%		
2	1987	12.99%	10.10%	2.89%		
3	1988	12.79%	10.49%	2.30%		
4	1989	12.97%	9.77%	3.20%		
5	1990	12.70%	9.86%	2.84%	3.12%	
6	1991	12.55%	9.36%	3.19%	2.88%	
7	1992	12.09%	8.69%	3.40%	2.99%	
8	1993	11.41%	7.59%	3.82%	3.29%	
9	1994	11.34%	8.31%	3.03%	3.26%	
10	1995	11.55%	7.89%	3.66%	3.42%	3.27%
11	1996	11.39%	7.75%	3.64%	3.51%	3.20%
12	1997	11.40%	7.60%	3.80%	3.59%	3.29%
13	1998	11.66%	7.04%	4.62%	3.75%	3.52%
14	1999	10.77%	7.62%	3.15%	3.77%	3.52%
15	2000	11.43%	8.24%	3.19%	3.68%	3.55%
16	2001	11.09%	7.76%	3.33%	3.62%	3.56%
17	2002	11.16%	7.37%	3.79%	3.61%	3.60%
18	2003	10.97%	6.58%	4.39%	3.57%	3.66%
19	2004	10.75%	6.16%	4.59%	3.86%	3.82%
20	2005	10.54%	5.65%	4.89%	4.20%	3.94%
21	2006	10.34%	6.07%	4.27%	4.39%	4.00%
22	2007	10.31%	6.07%	4.24%	4.48%	4.04%
23	2008	10.37%	6.53%	3.84%	4.37%	3.97%
24	2009	10.52%	6.04%	4.48%	4.34%	4.10%
25	2010	10.29%	5.47%	4.82%	4.33%	4.26%
26	2011	10.19%	5.04%	5.15%	4.51%	4.45%
27	2012	10.01%	4.13%	5.88%	4.83%	4.66%
28	2013	9.81%	4.48%	5.33%	5.13%	4.75%
29	2014	9.75%	4.28%	5.47%	5.33%	4.84%
30	2015	9.60%	4.12%	5.48%	5.46%	4.90%
31	2016	9.60%	3.93%	5.67%	5.57%	5.04%
32	2017	9.68%	4.00%	5.68%	5.53%	5.18%
33	2018	9.55%	4.25%	5.30%	5.52%	5.33%
34	2019	9.64%	3.77%	5.87%	5.60%	5.47%
35	2020	9.39%	3.05%	6.34%	5.77%	5.62%
36	2021 [3]	9.45%	3.20%	6.25%	5.89%	5.73%
37	**Average**	**10.94%**	**6.61%**	**4.34%**	**4.29%**	**4.27%**
38	**Minimum**				**2.88%**	**3.20%**
39	**Maximum**				**5.89%**	**5.73%**

Sources:
[1] *Regulatory Research Associates, Inc*., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 p. 5, and Jan. 2011 p. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January - June 2021, July 27, 2021, p. 1.
2006 - 2021 Authorized Returns exclude limited issue rider cases.
[2] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/.
The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.
[3] Data represents January - June 2021.

El Paso Electric Company

Bond Yield Spreads

Line	Year	T-Bond Yield[1] (1)	Public Utility Bond A[2] (2)	Public Utility Bond Baa[2] (3)	Public Utility Bond A-T-Bond Spread (4)	Public Utility Bond Baa-T-Bond Spread (5)	Corporate Bond Aaa[3] (6)	Corporate Bond Baa[3] (7)	Corporate Bond Aaa-T-Bond Spread (8)	Corporate Bond Baa-T-Bond Spread (9)	Utility to Corporate Baa Spread (10)	Utility to Corporate A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.30%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.87%	6.07%	6.32%	1.20%	1.44%	5.59%	6.48%	0.71%	1.61%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.73%
31	2010	4.25%	5.47%	5.96%	1.22%	1.71%	4.95%	6.04%	0.70%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.57%	1.13%	1.66%	4.64%	5.67%	0.73%	1.76%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.90%	3.67%	4.94%	0.75%	2.02%	-0.11%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.53%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.86%	0.82%	1.52%	-0.06%	0.12%
36	2015	2.84%	4.12%	5.03%	1.27%	2.19%	3.89%	5.00%	1.05%	2.16%	0.03%	0.23%
37	2016	2.60%	3.93%	4.67%	1.33%	2.08%	3.66%	4.71%	1.07%	2.12%	-0.04%	0.27%
38	2017	2.90%	4.00%	4.38%	1.10%	1.48%	3.74%	4.44%	0.85%	1.55%	-0.06%	0.26%
39	2018	3.11%	4.25%	4.67%	1.14%	1.56%	3.93%	4.80%	0.82%	1.69%	-0.13%	0.32%
40	2019	2.58%	3.77%	4.19%	1.18%	1.61%	3.39%	4.38%	0.81%	1.79%	-0.18%	0.38%
41	2020	1.56%	3.05%	3.44%	1.49%	1.87%	2.53%	3.66%	0.96%	2.10%	-0.22%	0.53%
42	2021[4]	2.11%	3.14%	3.40%	1.04%	1.30%	2.74%	3.44%	0.64%	1.34%	-0.04%	0.40%
43	**Average**	**6.21%**	**7.69%**	**8.12%**	**1.48%**	**1.91%**	**7.05%**	**8.12%**	**0.84%**	**1.91%**	**0.00%**	**0.65%**



Sources:

[1] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/.

[2] The utility yields for the period 1980-2000 were obtained from Mergent Public Utility Manual, Mergent Weekly News Reports, 2003.
The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record.
The utility yields for the period 2010-2021 were obtained from http://credittrends.moodys.com/.

[3] The corporate yields for the period 1980-2009 were obtained from the St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/.
The corporate yields from 2010-2021 were obtained from http://credittrends.moodys.com/.

[4] Data represents January - August 2021.

El Paso Electric Company

Treasury and Utility Bond Yields

Line	Date	Treasury Bond Yield[1] (1)	"A" Rated Utility Bond Yield[2] (2)	"Baa" Rated Utility Bond Yield[2] (3)
1	09/10/21	1.94%	2.97%	3.19%
2	09/03/21	1.94%	2.97%	3.20%
3	08/27/21	1.91%	2.95%	3.18%
4	08/20/21	1.87%	2.93%	3.17%
5	08/13/21	1.94%	2.98%	3.23%
6	08/06/21	1.94%	2.96%	3.20%
7	07/30/21	1.89%	2.90%	3.15%
8	07/23/21	1.92%	2.95%	3.19%
9	07/16/21	1.93%	2.94%	3.20%
10	07/09/21	1.99%	3.00%	3.24%
11	07/02/21	2.05%	3.04%	3.27%
12	06/25/21	2.16%	3.16%	3.41%
13	06/18/21	2.01%	3.02%	3.26%
14	**Average**	**1.96%**	**2.98%**	**3.22%**
15	**Spread To Treasury**		**1.02%**	**1.26%**

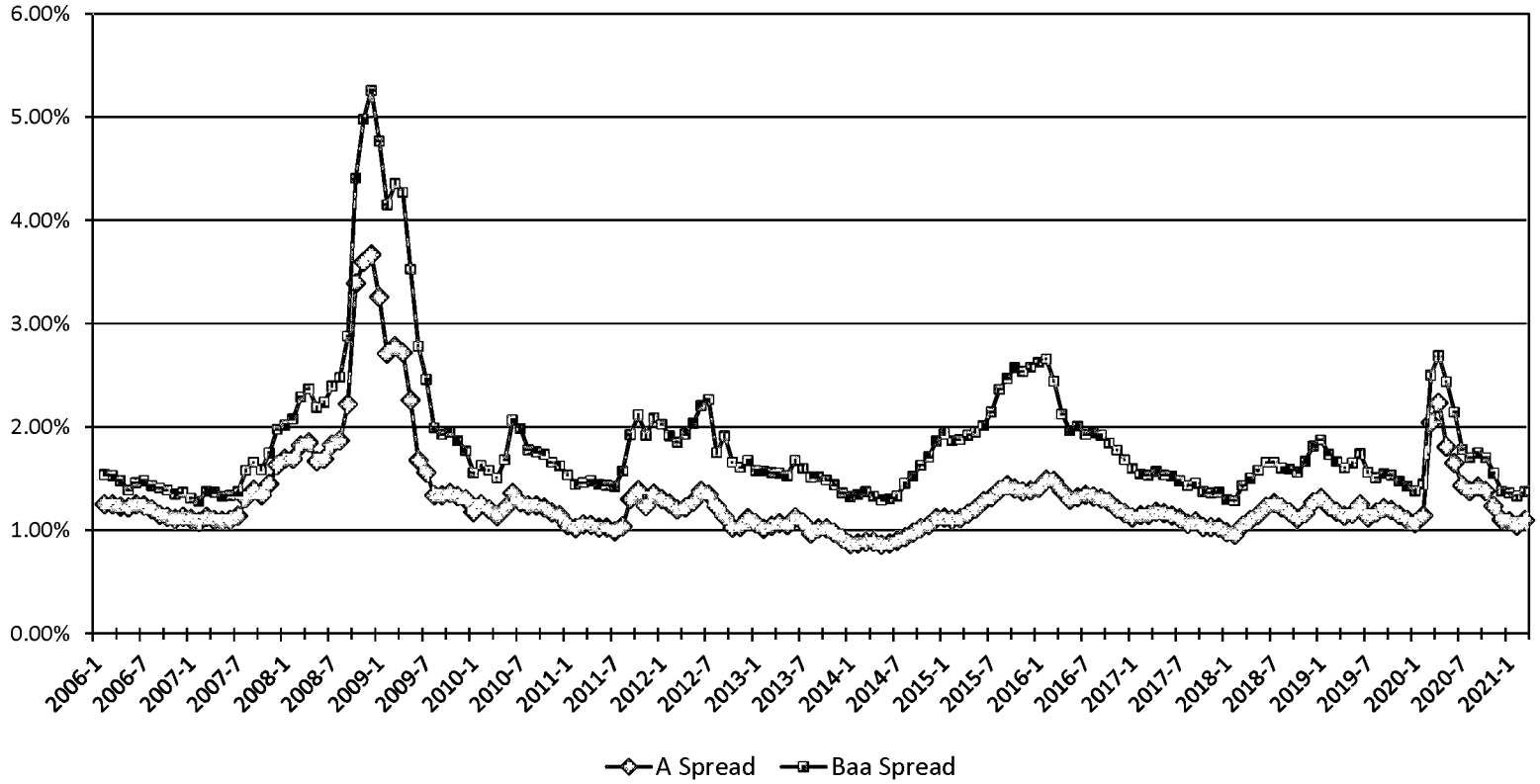
Sources:

[1] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org.

[2] http://credittrends.moodys.com/.

El Paso Electric Company

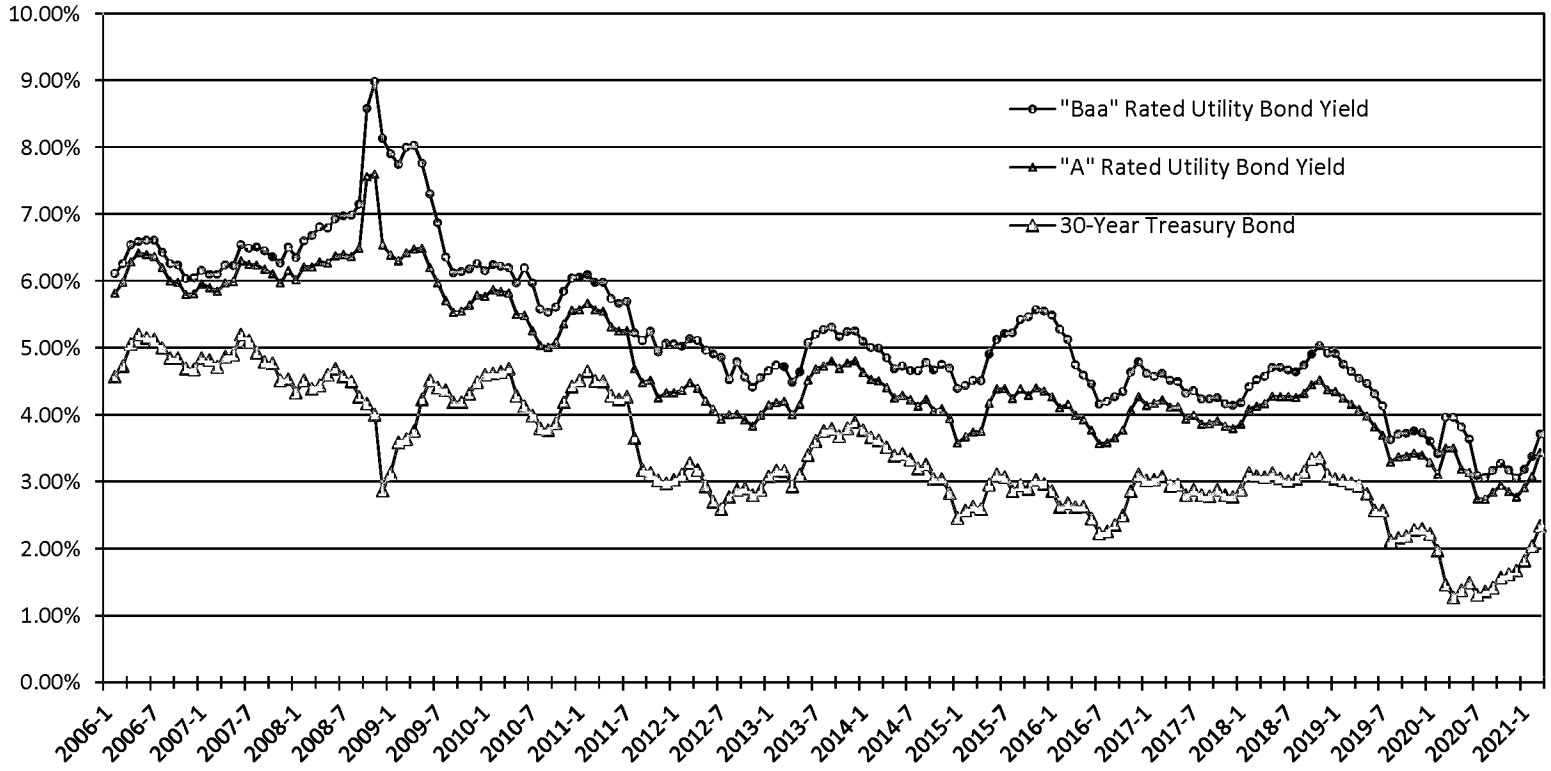
Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/

El Paso Electric Company

Trends in Bond Yields



Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/

El Paso Electric Company

Value Line Beta

Line	Company	Beta
1	ALLETE, Inc.	0.90
2	Alliant Energy Corporation	0.85
3	Ameren Corporation	0.80
4	American Electric Power Company, Inc.	0.75
5	Avista Corporation	0.95
6	CMS Energy Corporation	0.80
7	DTE Energy Company	0.95
8	Entergy Corporation	0.95
9	Evergy, Inc.	0.95
10	Hawaiian Electric Industries, Inc.	0.80
11	IDACORP, Inc.	0.85
12	NextEra Energy, Inc.	0.95
13	NorthWestern Corporation	0.95
14	OGE Energy Corp.	1.05
15	Otter Tail Corporation	0.90
16	Pinnacle West Capital Corporation	0.90
17	Portland General Electric Company	0.90
18	Southern Company	0.95
19	WEC Energy Group, Inc.	0.80
20	Xcel Energy Inc.	0.80
21	**Average**	**0.89**

Source:
The Value Line Investment Survey,
June 11, July 23, and August 13, 2021.

El Paso Electric Company

Value Line
Historical Betas

Line	Company	Average	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19	3Q19	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15	2Q15	1Q15	4Q14	3Q14
		(1)	(1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	ALLETE, Inc.	0.77	0.90	0.85	0.85	0.85	0.60	N/A	N/A	0.65	0.65	0.65	0.70	0.75	0.75	0.80	0.75	0.80	0.80	0.75	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80
2	Alliant Energy Corporation	0.73	0.85	0.85	0.85	0.80	0.55	0.60	0.60	0.60	0.65	0.60	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80
3	Ameren Corporation	0.69	0.80	0.85	0.80	0.80	0.50	0.55	0.55	0.60	0.60	0.55	0.60	0.65	0.65	0.70	0.65	0.65	0.70	0.65	0.70	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
4	American Electric Power Company, Inc.	0.65	0.75	0.75	0.75	0.75	0.50	0.55	0.55	0.55	0.55	0.55	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
5	Avista Corporation	0.74	0.95	0.90	0.95	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.70	0.70	0.75	0.75	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.75
6	CMS Energy Corporation	0.66	0.75	0.80	0.80	0.80	0.50	0.50	0.55	0.55	0.55	0.55	0.55	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.75	0.75	0.70	0.75	0.75	0.70	0.75
7	DTE Energy Company	0.69	0.95	0.95	0.90	0.90	0.50	0.55	0.55	0.55	0.55	0.55	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.75	0.75	0.75	0.75	0.75	0.75	0.75
8	Duke Energy Corporation	0.62	0.85	0.85	0.85	0.85	0.45	N/A	N/A	0.50	0.50	0.55	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.50	0.60	0.60	0.60	0.60	0.60
9	Entergy Corporation	0.69	0.95	0.95	0.95	0.95	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.65	0.70	0.70	0.70	0.70
10	Evergy, Inc.	1.00	0.95	1.00	1.00	1.05	NMF	NMF	NMF	NMF	NMF	NMF	NMF	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Hawaiian Electric Industries, Inc.	0.70	0.80	0.80	0.80	0.55	0.55	0.55	0.55	0.60	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.75
12	IDACORP, Inc.	0.71	0.80	0.80	0.80	0.50	0.55	0.55	0.60	0.60	0.55	0.60	0.65	0.70	0.70	0.70	0.70	0.75	0.75	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
13	NextEra Energy, Inc.	0.68	0.90	0.90	0.85	0.85	0.50	0.55	0.55	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.75	0.70	0.75	0.70	0.70	0.70
14	NorthWestern Corporation	0.69	0.95	0.90	0.90	0.55	0.60	0.60	0.60	0.60	0.55	0.60	0.65	0.65	0.70	0.70	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.70	0.70	0.70	0.70
15	OGE Energy Corp.	0.91	1.05	1.10	1.05	1.05	0.70	0.75	0.80	0.80	0.85	0.85	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.85
16	Otter Tail Corporation	0.83	0.85	0.85	0.85	0.85	0.70	0.70	0.65	0.70	0.70	0.75	0.80	0.85	0.85	0.90	0.90	0.90	0.85	0.85	0.85	0.80	0.85	0.85	0.85	0.90	0.90	0.90	0.95
17	Pinnacle West Capital Corporation	0.68	0.90	0.85	0.85	0.45	0.50	0.55	0.55	0.55	0.55	0.60	0.65	0.65	0.70	0.70	0.65	0.70	0.70	0.70	0.70	0.75	0.75	0.75	0.70	0.70	0.70	0.70	0.70
18	Portland General Electric Company	0.71	0.85	0.85	0.85	0.55	0.55	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.75
19	The Southern Company	0.60	0.95	0.90	0.90	0.90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.55	0.65	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.60	0.60	0.55	0.60	0.55	0.55	0.60
20	WEC Energy Group, Inc.	0.63	0.80	0.80	0.80	0.80	0.45	0.50	0.50	0.50	0.55	0.50	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.65	0.65	0.65
21	Xcel Energy Inc.	0.61	0.80	0.80	0.75	0.45	0.50	0.50	0.50	0.50	0.50	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.65
22	**Average**	0.71	0.87	0.87	0.86	0.75	0.55	0.57	0.58	0.59	0.59	0.60	0.64	0.68	0.69	0.70	0.68	0.69	0.69	0.69	0.71	0.73	0.75	0.75	0.74	0.75	0.74	0.74	0.74

Source: Value Line Software Analyzer

El Paso Electric Company

Value Line Electric Industry
Historical Betas

Line	Company	Average	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19	3Q19	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15	2Q15	1Q15	4Q14	3Q14
		(1)	(1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	ALLETE, Inc.	0.77	0.90	0.85	0.85	0.85	0.60	N/A	N/A	0.65	0.65	0.65	0.70	0.75	0.75	0.80	0.75	0.80	0.80	0.75	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80
2	Alliant Energy Corporation	0.73	0.85	0.85	0.85	0.80	0.55	0.60	0.60	0.60	0.65	0.60	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80
3	Ameren Corporation	0.69	0.80	0.85	0.80	0.80	0.50	0.55	0.55	0.60	0.60	0.55	0.60	0.65	0.65	0.70	0.65	0.65	0.70	0.65	0.70	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
4	American Electric Power Compa	0.65	0.75	0.75	0.75	0.75	0.50	0.55	0.55	0.55	0.55	0.55	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
5	Avista Corporation	0.74	0.95	0.90	0.95	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.70	0.70	0.75	0.75	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.75
6	CMS Energy Corporation	0.66	0.75	0.80	0.80	0.80	0.50	0.50	0.55	0.55	0.55	0.55	0.55	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.75	0.75	0.70	0.75	0.75	0.70	0.75
7	DTE Energy Company	0.69	0.95	0.95	0.90	0.90	0.50	0.55	0.55	0.55	0.55	0.55	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.75	0.75	0.75	0.75	0.75	0.75	0.75
8	Duke Energy Corporation	0.62	0.85	0.85	0.85	0.85	0.45	N/A	N/A	0.50	0.50	0.55	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.50	0.60	0.60	0.60	0.60	0.60
9	Entergy Corporation	0.69	0.95	0.95	0.95	0.95	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.65	0.70	0.70	0.70	0.70
10	Evergy, Inc.	1.00	0.95	1.00	1.00	1.05	NMF	NMF	NMF	NMF	NMF	NMF	NMF	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Hawaiian Electric Industries, Inc.	0.70	0.80	0.80	0.80	0.55	0.55	0.55	0.55	0.60	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.75
12	IDACORP, Inc.	0.71	0.80	0.80	0.80	0.50	0.55	0.55	0.60	0.60	0.55	0.60	0.65	0.70	0.70	0.70	0.70	0.75	0.75	0.75	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
13	NextEra Energy, Inc.	0.68	0.90	0.90	0.85	0.85	0.50	0.55	0.55	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.75	0.70	0.75	0.70	0.70	0.70
14	NorthWestern Corporation	0.69	0.95	0.90	0.90	0.55	0.60	0.60	0.60	0.60	0.55	0.60	0.65	0.65	0.70	0.70	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.70	0.70	0.70	0.70
15	OGE Energy Corp.	0.91	1.05	1.10	1.05	1.05	0.70	0.75	0.80	0.80	0.85	0.85	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.90	0.90	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.85
16	Otter Tail Corporation	0.83	0.85	0.85	0.85	0.85	0.70	0.70	0.65	0.70	0.70	0.75	0.80	0.85	0.85	0.90	0.90	0.90	0.85	0.85	0.85	0.80	0.85	0.85	0.85	0.90	0.90	0.90	0.95
17	Pinnacle West Capital Corporatio	0.68	0.90	0.85	0.85	0.45	0.50	0.55	0.55	0.55	0.55	0.60	0.65	0.65	0.70	0.70	0.65	0.70	0.70	0.70	0.70	0.75	0.75	0.75	0.70	0.70	0.70	0.70	0.70
18	Portland General Electric Compa	0.71	0.85	0.85	0.85	0.55	0.55	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.75
19	The Southern Company	0.60	0.95	0.90	0.90	0.90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.55	0.65	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.60	0.60	0.55	0.60	0.55	0.55	0.60
20	WEC Energy Group, Inc.	0.63	0.80	0.80	0.80	0.80	0.45	0.50	0.50	0.50	0.55	0.50	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.70	0.70	0.70	0.70	0.65	0.65	0.65
21	Xcel Energy Inc.	0.61	0.80	0.80	0.75	0.45	0.50	0.50	0.50	0.50	0.50	0.55	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.65
22	**Electric Industry Average**	0.71	0.87	0.87	0.86	0.75	0.55	0.57	0.58	0.59	0.59	0.60	0.64	0.68	0.69	0.70	0.68	0.69	0.69	0.69	0.71	0.73	0.75	0.75	0.74	0.75	0.74	0.74	0.74

Source: Value Line Software Analyzer

El Paso Electric Company

Value Line Natural Gas Industry
Historical Betas

Line	Company	Average	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19	3Q19	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15	3Q15	2Q15	1Q15	4Q14	3Q14
		(1)	(1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	Atmos Energy Corporation	0.72	0.80	0.80	0.80	0.80	0.55	0.60	0.60	0.65	0.60	0.60	0.60	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.75	0.75	0.80	0.80	0.85	0.85	0.85	0.80	0.80
2	Chesapeake Utilities Corporation	0.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.65	0.70	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.65	0.60	0.60	0.65	0.65	0.65	0.65	NA	0.65	0.65
3	New Jersey Resources Corporat	0.79	0.95	0.95	0.90	0.90	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.80	0.75	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.85	0.80	0.80	0.80	0.80
4	NiSource Inc.	0.68	0.85	0.85	0.85	0.85	0.55	0.55	0.55	0.55	0.55	0.50	0.55	0.60	0.60	0.60	NMF	0.65	NMF	NMF	NMF	NMF	NMF	NMF	NMF	0.85	0.85	0.85	0.80
5	Northwest Natural Gas Company	0.68	0.80	0.80	0.80	0.80	0.55	0.60	0.60	0.60	0.65	0.60	0.65	0.70	0.65	0.70	0.70	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.70	0.70
6	ONE Gas, Inc.	0.70	0.80	0.80	0.80	0.80	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.70	0.70	0.70	0.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Industries, Inc.	0.84	1.05	1.05	1.00	0.95	0.80	0.80	0.80	0.80	0.85	0.80	0.75	0.85	0.80	0.85	0.85	0.80	0.80	0.80	0.80	0.80	0.85	0.80	0.85	0.85	0.80	0.80	0.80
8	Southwest Gas Corporation	0.79	0.95	0.95	0.90	0.90	0.65	0.70	0.70	0.70	0.70	0.70	0.75	0.80	0.75	0.80	0.75	0.75	0.75	0.75	0.75	0.75	0.80	0.80	0.85	0.85	0.85	0.85	0.85
9	Spire Inc.	0.71	0.85	1.00	0.80	0.80	0.60	0.65	0.65	0.65	0.65	0.65	0.65	0.70	0.65	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
10	UGI Corporation	0.90	N/A	1.00	1.00	0.95	0.75	N/A	N/A	0.80	0.80	0.80	0.85	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.90	0.85	0.85
11	**Natural Gas Ind. Average**	0.75	0.88	0.91	0.87	0.86	0.63	0.66	0.66	0.68	0.69	0.67	0.69	0.75	0.72	0.75	0.76	0.74	0.75	0.74	0.74	0.75	0.78	0.77	0.80	0.80	0.81	0.78	0.77

Source: Value Line Software Analyzer

El Paso Electric Company

CAPM Return

Line	Description	Current Market Risk Premium (1)	Normalized Market Risk Premium (2)
1	Risk-Free Rate[1,2]	1.96%	2.60%
2	Risk Premium[3]	9.54%	8.90%
3	Beta[4,5]	0.89	0.71
4	**CAPM**	**10.43%**	**8.96%**

Sources:

[1] *Exhibit MPG-15, Page 1 of 3.*

[2] *Blue Chip Financial Forecasts*, September 1, 2021, at 2.

[3] *Duff & Phelps 2021 SBBI Yearbook at 6-18.*

[4] Exhibit MPG-16, Page 1.

[5] Exhibit MPG-16, Page 2.

El Paso Electric Company

North American Electric, Gas, and Water Regulated Utilities--Strongest To Weakest

Line	Utility Company	Current Rating (1)	Current Outlook or CreditWatch (2)	Stand-Alone Credit Profile (3)	Business Risk Profile (4)	Financial Risk Profile (5)
1	Alberta Electric System Operator (AESO)	AA-	Stable	aa-	Excellent	Modest
2	Madison Gas & Electric Co.	AA-	Stable	aa-	Excellent	Intermediate
3	Midcontinent Independent System Operator Inc.	AA-	Stable	aa-	Excellent	Modest
4	American States Water Co.	A+	Stable	a+	Excellent	Intermediate
5	American Transmission Co.	A+	Stable	a+	Excellent	Intermediate
6	California Independent System Operator Corp.	A+	Stable	a+	Excellent	Intermediate
7	California Water Service Co.	A+	Stable	a+	Excellent	Intermediate
8	Golden State Water Co.	A+	Stable	aa-	Excellent	Intermediate
9	Northwest Natural Gas Co.	A+	Stable	a+	Excellent	Intermediate
10	Alectra Inc.	A	Stable	a	Excellent	Significant
11	AltaLink Investments L.P.	A	Stable	bbb+	Excellent	Significant
12	AltaLink L.P.	A	Stable	a-	Excellent	Significant
13	American Water Works Co. Inc.	A	Stable	a	Excellent	Intermediate
14	Aqua Pennsylvania Inc.	A	Stable	a+	Excellent	Intermediate
15	Atmos Energy Corp.	A	Stable	a	Excellent	Intermediate
16	Baltimore Gas & Electric Co.	A	Stable	a	Excellent	Intermediate
17	Berkshire Hathaway Energy Co.	A	Stable	bbb	Excellent	Significant
18	Central Maine Power Co.	A	Stable	a	Excellent	Significant
19	Connecticut Light & Power Co.	A	Stable	a+	Excellent	Intermediate
20	Energir Inc.	A	Stable	a	Excellent	Intermediate
21	Energy + Inc.	A	Stable	a	Excellent	Intermediate
22	Entegrus Powerlines Inc.	A	Stable	a	Excellent	Intermediate
23	Essential Utilities Inc.	A	Stable	a	Excellent	Significant
24	Evergy Metro Inc.	A	Stable	a	Excellent	Significant
25	Florida Power & Light Co.	A	Stable	a+	Excellent	Intermediate
26	Gulf Power Co.	A	Stable	a	Excellent	Significant
27	London Hydro Inc.	A	Stable	a	Excellent	Modest
28	MidAmerican Energy Co.	A	Stable	a-	Excellent	Significant
29	Nevada Power Co.	A	Stable	bbb	Strong	Significant
30	New Jersey-American Water Co.	A	Stable	a+	Excellent	Intermediate
31	NSTAR Electric Co.	A	Stable	a+	Excellent	Intermediate
32	Oncor Electric Delivery Co. LLC	A	Stable	a	Excellent	Intermediate
33	ONE Gas Inc.	A	Stable	a	Excellent	Significant
34	PacifiCorp	A	Stable	a-	Excellent	Significant
35	Pennsylvania-American Water Co.	A	Stable	a+	Excellent	Intermediate
36	PNG Cos. LLC	A	Stable	a-	Excellent	Significant
37	Public Service Co. of New Hampshire	A	Stable	a	Excellent	Intermediate
38	San Jose Water Co.	A	Stable	a	Excellent	Intermediate
39	Sierra Pacific Power Co.	A	Stable	bbb	Strong	Significant
40	SUEZ Water Resources LLC	A	Stable	a	Excellent	Intermediate
41	Toronto Hydro Corp.	A	Stable	a	Excellent	Intermediate
42	Windsor Canada Utilities Ltd.	A	Stable	a	Excellent	Intermediate
43	Wisconsin Gas LLC	A	Stable	a	Excellent	Intermediate
44	Wisconsin Power & Light Co.	A	Stable	a	Excellent	Significant
45	Alabama Power Co.	A	Negative	a	Excellent	Intermediate
46	Middlesex Water Co.	A	Negative	a	Excellent	Intermediate
47	Nicor Gas Co.	A	Negative	a	Excellent	Intermediate
48	Southern California Gas Co.	A	Negative	a	Excellent	Significant
49	AEP Texas Inc.	A-	Stable	a-	Excellent	Significant
50	AEP Transmission Co. LLC	A-	Stable	a+	Excellent	Intermediate
51	Alliant Energy Corp.	A-	Stable	a-	Excellent	Significant
52	American Electric Power Co. Inc.	A-	Stable	a-	Excellent	Significant
53	Appalachian Power Co.	A-	Stable	a-	Excellent	Significant
54	Aquarion Co.	A-	Stable	bbb	Excellent	Aggressive
55	Arizona Public Service Co.	A-	Stable	a-	Excellent	Significant
56	Atlantic City Electric Co.	A-	Stable	a-	Excellent	Significant

El Paso Electric Company

North American Electric, Gas, and Water Regulated Utilities--Strongest To Weakest

Line	Utility Company	Current Rating (1)	Current Outlook or CreditWatch (2)	Stand-Alone Credit Profile (3)	Business Risk Profile (4)	Financial Risk Profile (5)
57	Berkshire Gas Co.	A-	Stable	a-	Strong	Intermediate
58	Central Hudson Gas & Electric Corp.	A-	Stable	a-	Excellent	Significant
59	Connecticut Natural Gas Corp.	A-	Stable	a-	Excellent	Significant
60	Connecticut Water Service Inc.	A-	Stable	a-	Excellent	Intermediate
61	Consumers Energy Co.	A-	Stable	a-	Excellent	Significant
62	CU Inc.	A-	Stable	a-	Excellent	Significant
63	Delmarva Power & Light Co.	A-	Stable	a-	Excellent	Significant
64	DTE Electric Co.	A-	Stable	a-	Excellent	Significant
65	DTE Gas Co.	A-	Stable	a+	Excellent	Intermediate
66	Duke Energy Carolinas LLC	A-	Stable	a	Excellent	Intermediate
67	Duke Energy Corp.	A-	Stable	a-	Excellent	Significant
68	Duke Energy Florida LLC	A-	Stable	a-	Excellent	Significant
69	Duke Energy Indiana Inc.	A-	Stable	a-	Excellent	Significant
70	Duke Energy Kentucky Inc.	A-	Stable	bbb	Strong	Significant
71	Duke Energy Ohio Inc.	A-	Stable	a-	Excellent	Significant
72	Duke Energy Progress LLC	A-	Stable	a-	Excellent	Significant
73	Enbridge Gas Inc.	A-	Stable	a-	Excellent	Significant
74	Entergy Arkansas LLC	A-	Stable	a-	Excellent	Significant
75	Entergy Louisiana LLC	A-	Stable	a-	Excellent	Significant
76	Entergy Mississippi LLC	A-	Stable	a	Excellent	Significant
77	EPCOR Utilities Inc.	A-	Stable	a-	Excellent	Significant
78	Evergy Inc.	A-	Stable	a-	Excellent	Significant
79	Evergy Kansas Central Inc.	A-	Stable	a-	Excellent	Significant
80	Evergy Kansas South Inc.	A-	Stable	a	Excellent	Intermediate
81	Evergy Missouri West Inc.	A-	Stable	bbb+	Strong	Significant
82	Eversource Energy	A-	Stable	a-	Excellent	Significant
83	Eversource Gas Co. of Massachusetts	A-	Stable	bbb	Strong	Significant
84	Green Mountain Power Corp.	A-	Stable	bbb+	Excellent	Significant
85	Hydro One Inc.	A-	Stable	a-	Excellent	Significant
86	Hydro One Ltd.	A-	Stable	a-	Excellent	Significant
87	Indiana Michigan Power Co.	A-	Stable	bbb+	Excellent	Significant
88	Integrys Holding Inc.	A-	Stable	a-	Excellent	Significant
89	Interstate Power & Light Co.	A-	Stable	a-	Excellent	Significant
90	Kentucky Power Co.	A-	Stable	bbb	Strong	Significant
91	Kentucky Utilities Co.	A-	Stable	a-	Excellent	Significant
92	LG&E and KU Energy LLC	A-	Stable	a-	Excellent	Significant
93	Louisville Gas & Electric Co.	A-	Stable	a-	Excellent	Significant
94	New York State Electric & Gas Corp.	A-	Stable	a-	Excellent	Significant
95	NextEra Energy Inc.	A-	Stable	a-	Excellent	Intermediate
96	Northern States Power Co.	A-	Stable	a	Excellent	Significant
97	Northern States Power Wisconsin	A-	Stable	a-	Excellent	Intermediate
98	NSTAR Gas Co.	A-	Stable	a-	Excellent	Significant
99	Ohio Power Co.	A-	Stable	a-	Excellent	Significant
100	Oklahoma Gas & Electric Co.	A-	Stable	a-	Excellent	Significant
101	Peoples Gas Light & Coke Co. (The)	A-	Stable	a-	Excellent	Significant
102	Piedmont Natural Gas Co. Inc.	A-	Stable	a	Excellent	Intermediate
103	Pinnacle West Capital Corp.	A-	Stable	a-	Excellent	Significant
104	Potomac Electric Power Co.	A-	Stable	a-	Excellent	Significant
105	PPL Corp.	A-	Stable	a-	Excellent	Significant
106	PPL Electric Utilities Corp.	A-	Stable	a-	Excellent	Significant
107	Progress Energy Inc.	A-	Stable	a-	Excellent	Significant
108	Public Service Co. of Colorado	A-	Stable	a-	Excellent	Significant
109	Public Service Co. of Oklahoma	A-	Stable	bbb	Strong	Significant
110	Public Service Electric & Gas Co.	A-	Stable	a+	Excellent	Intermediate
111	Rochester Gas & Electric Corp.	A-	Stable	a-	Excellent	Significant
112	SJW Group	A-	Stable	a-	Excellent	Significant
113	Southern Connecticut Gas Co.	A-	Stable	a-	Excellent	Significant

El Paso Electric Company

North American Electric, Gas, and Water Regulated Utilities--Strongest To Weakest

Line	Utility Company	Current Rating (1)	Current Outlook or CreditWatch (2)	Stand-Alone Credit Profile (3)	Business Risk Profile (4)	Financial Risk Profile (5)
114	Southwest Gas Corp.	A-	Stable	a-	Excellent	Significant
115	Southwestern Electric Power Co.	A-	Stable	bbb+	Excellent	Significant
116	Southwestern Public Service Co.	A-	Stable	bbb+	Excellent	Significant
117	Spire Alabama Inc.	A-	Stable	a+	Excellent	Intermediate
118	Spire Inc.	A-	Stable	a-	Excellent	Significant
119	Spire Missouri Inc.	A-	Stable	a+	Excellent	Intermediate
120	United Illuminating Co. (The)	A-	Stable	a-	Excellent	Significant
121	Washington Gas Light Co.	A-	Stable	a-	Excellent	Significant
122	WEC Energy Group Inc.	A-	Stable	a-	Excellent	Significant
123	Wisconsin Electric Power Co.	A-	Stable	a-	Excellent	Significant
124	Wisconsin Public Service Corp.	A-	Stable	a-	Excellent	Significant
125	Xcel Energy Inc.	A-	Stable	a-	Excellent	Significant
126	Yankee Gas Services Co.	A-	Stable	a-	Excellent	Significant
127	York Water Co. (The)	A-	Stable	a-	Excellent	Intermediate
128	ATCO Ltd.	A-	Negative	a-	Excellent	Significant
129	Atlanta Gas Light Co.	A-	Negative	aa	Excellent	Modest
130	Canadian Utilities Ltd.	A-	Negative	a-	Excellent	Significant
131	Consolidated Edison Co. of New York Inc.	A-	Negative	a-	Excellent	Significant
132	Consolidated Edison Inc.	A-	Negative	a-	Excellent	Significant
133	Fortis Inc.	A-	Negative	a-	Excellent	Significant
134	FortisAlberta Inc.	A-	Negative	a-	Excellent	Significant
135	Georgia Power Co.	A-	Negative	a-	Excellent	Significant
136	ITC Holdings Corp.	A-	Negative	a-	Excellent	Significant
137	KeySpan Gas East Corp.	A-	Negative	bbb+	Excellent	Significant
138	Mississippi Power Co.	A-	Negative	bbb	Strong	Significant
139	Montana-Dakota Utilities Co.	A-	Negative	a-	Excellent	Significant
140	National Grid North America Inc.	A-	Negative	bbb	Excellent	Aggressive
141	Niagara Mohawk Power Corp.	A-	Negative	bbb+	Excellent	Significant
142	Orange and Rockland Utilities Inc.	A-	Negative	bbb+	Excellent	Significant
143	Pepco Holdings LLC	A-	Negative	a-	Excellent	Significant
144	Southern Co.	A-	Negative	a-	Excellent	Significant
145	Southern Co. Gas	A-	Negative	bbb+	Strong	Significant
146	The Brooklyn Union Gas Co.	A-	Negative	bbb+	Excellent	Significant
147	Tucson Electric Power Co.	A-	Negative	bbb+	Excellent	Significant
148	Dominion Energy Questar Pipeline LLC	BBB+	WatchPos	bbb-	Satisfactory	Intermediate
149	Dominion Energy South Carolina Inc.	BBB+	Positive	bbb	Strong	Significant
150	Dominion Energy Inc.	BBB+	Positive	bbb+	Excellent	Significant
151	Public Service Co. of North Carolina Inc.	BBB+	Positive	a	Excellent	Intermediate
152	Questar Gas Co.	BBB+	Positive	a-	Excellent	Significant
153	Texas-New Mexico Power Co.	BBB+	Positive	a-	Excellent	Significant
154	The East Ohio Gas Company d/b/a Dominion Energy Ohio	BBB+	Positive	a-	Excellent	Significant
155	Virginia Electric & Power Co.	BBB+	Positive	a	Excellent	Significant
156	Ameren Corp.	BBB+	Stable	bbb+	Excellent	Significant
157	Ameren Illinois Co.	BBB+	Stable	a-	Excellent	Significant
158	Avangrid Inc.	BBB+	Stable	bbb+	Strong	Significant
159	Black Hills Corp.	BBB+	Stable	bbb+	Excellent	Significant
160	Black Hills Power Inc.	BBB+	Stable	a-	Excellent	Significant
161	Cleco Power LLC	BBB+	Stable	a-	Excellent	Significant
162	CMS Energy Corp.	BBB+	Stable	bbb+	Excellent	Significant
163	DTE Energy Co.	BBB+	Stable	bbb+	Excellent	Significant
164	Duquesne Light Co.	BBB+	Stable	aa-	Excellent	Modest
165	Entergy Corp.	BBB+	Stable	bbb+	Excellent	Significant
166	Entergy Texas Inc.	BBB+	Stable	bbb+	Excellent	Aggressive
167	Maritime Electric Co. Ltd.	BBB+	Stable	bbb+	Excellent	Significant
168	NiSource Inc.	BBB+	Stable	bbb+	Excellent	Significant
169	Northern Indiana Public Service Co. LLC	BBB+	Stable	a-	Excellent	Intermediate
170	Nova Scotia Power Inc.	BBB+	Stable	bbb+	Excellent	Significant

El Paso Electric Company

North American Electric, Gas, and Water Regulated Utilities--Strongest To Weakest

Line	Utility Company	Current Rating (1)	Current Outlook or CreditWatch (2)	Stand-Alone Credit Profile (3)	Business Risk Profile (4)	Financial Risk Profile (5)
171	OGE Energy Corp.	BBB+	Stable	bbb+	Strong	Significant
172	Ontario Power Generation Inc.	BBB+	Stable	bb+	Strong	Significant
173	Otter Tail Power Co.	BBB+	Stable	bbb+	Strong	Significant
174	Public Service Enterprise Group Inc.	BBB+	Stable	bbb+	Strong	Significant
175	Southwest Gas Holdings Inc.	BBB+	Stable	bbb+	Strong	Significant
176	System Energy Resources Inc.	BBB+	Stable	a+	Strong	Minimal
177	Tampa Electric Co.	BBB+	Stable	a	Excellent	Intermediate
178	Union Electric Co. d/b/a Ameren Missouri	BBB+	Stable	bbb+	Excellent	Significant
179	Versant Power	BBB+	Stable	bbb+	Strong	Significant
180	Caribbean Utilities Co. Ltd.	BBB+	Negative	bbb+	Excellent	Significant
181	Cascade Natural Gas Corp. (MDU)	BBB+	Negative	bbb	Strong	Significant
182	CenterPoint Energy Houston Electric LLC	BBB+	Negative	a	Excellent	Significant
183	CenterPoint Energy Inc.	BBB+	Negative	bbb+	Excellent	Aggressive
184	CenterPoint Energy Resources Corp.	BBB+	Negative	a-	Excellent	Significant
185	Commonwealth Edison Co.	BBB+	Negative	bbb+	Excellent	Significant
186	Exelon Corp.	BBB+	Negative	bbb+	Strong	Significant
187	Indiana Gas Co. Inc.	BBB+	Negative	a+	Excellent	Intermediate
188	MDU Resources Group Inc.	BBB+	Negative	bbb+	Satisfactory	Significant
189	PECO Energy Co.	BBB+	Negative	a	Excellent	Intermediate
190	Portland General Electric Co.	BBB+	Negative	bbb+	Excellent	Significant
191	San Diego Gas & Electric Co.	BBB+	Negative	bbb+	Strong	Significant
192	Sempra Energy	BBB+	Negative	bbb+		Significant
193	Southern Indiana Gas & Electric Co.	BBB+	Negative	a	Excellent	Significant
194	Southern Power Co.	BBB+	Negative	bb+	Satisfactory	Significant
195	Unitil Corp.	BBB+	Negative	bbb+	Strong	Significant
196	Vectren Utility Holdings Inc.	BBB+	Negative	a-	Excellent	Significant
197	PNM Resources Inc.	BBB	Positive	bbb	Strong	Significant
198	Public Service Co. of New Mexico	BBB	Positive	bbb	Strong	Significant
199	Algonquin Power & Utilities Corp.	BBB	Stable	bbb	Strong	Significant
200	ALLETE Inc.	BBB	Stable	bbb	Strong	Significant
201	Avista Corp.	BBB	Stable	bbb	Strong	Significant
202	Duquesne Light Holdings Inc.	BBB	Stable	bbb	Excellent	Aggressive
203	Emera Inc.	BBB	Stable	bbb	Excellent	Aggressive
204	Empire District Electric Co.	BBB	Stable	bbb	Strong	Significant
205	IDACORP Inc.	BBB	Stable	bbb	Strong	Significant
206	Idaho Power Co.	BBB	Stable	bbb	Strong	Significant
207	Indianapolis Power & Light Co.	BBB	Stable	a-	Excellent	Significant
208	IPALCO Enterprises Inc.	BBB	Stable	bbb	Excellent	Aggressive
209	NorthWestern Corp.	BBB	Stable	bbb	Strong	Significant
210	SEMCO Energy Inc.	BBB	Stable	bbb+	Excellent	Significant
211	TECO Energy Inc.	BBB	Stable	a-	Excellent	Significant
212	Edison International	BBB	Negative	bbb	Strong	Significant
213	Elizabethtown Gas Co.	BBB	Negative	a-	Excellent	Significant
214	Entergy New Orleans LLC	BBB	Negative	bbb-	Strong	Significant
215	Otter Tail Corp.	BBB	Negative	bbb	Satisfactory	Significant
216	Puget Sound Energy Inc.	BBB	Negative	bbb+	Excellent	Significant
217	South Jersey Gas Co.	BBB	Negative	a-	Excellent	Significant
218	South Jersey Industries Inc.	BBB	Negative	bbb	Excellent	Aggressive
219	Southern California Edison Co.	BBB	Negative	bbb	Strong	Significant
220	Hawaiian Electric Co. Inc.	BBB-	Positive	bbb-	Strong	Significant
221	Hawaiian Electric Industries Inc.	BBB-	Positive	bbb-	Strong	Significant
222	AltaGas Ltd.	BBB-	Stable	bbb-	Strong	Aggressive
223	Cleco Corporate Holdings LLC	BBB-	Stable	bbb	Satisfactory	Significant
224	ENMAX Corp.	BBB-	Stable	bbb-	Strong	Significant
225	Fortis TCI Ltd.	BBB-	Stable	bb+	Satisfactory	Significant
226	WGL Holdings Inc.	BBB-	Stable	bbb+	Excellent	Significant
227	Puget Energy Inc.	BBB-	Negative	bbb+	Excellent	Significant

El Paso Electric Company

North American Electric, Gas, and Water Regulated Utilities--Strongest To Weakest

Line	Utility Company	Current Rating (1)	Current Outlook or CreditWatch (2)	Stand-Alone Credit Profile (3)	Business Risk Profile (4)	Financial Risk Profile (5)
228	Dayton Power & Light Co.	BB+	Developing	bbb	Strong	Intermediate
229	DPL Inc.	BB+	Developing	bb	Strong	Highly Leveraged
230	Cleveland Electric Illuminating Co.	BB	Watch Neg	bbb	Excellent	Significant
231	FirstEnergy Corp.	BB	Watch Neg	bb	Excellent	Aggressive
232	FirstEnergy Transmission LLC	BB	Watch Neg	bbb+	Excellent	Intermediate
233	Jersey Central Power & Light Co.	BB	Watch Neg	bb+	Strong	Significant
234	Metropolitan Edison Co.	BB	Watch Neg	bbb	Excellent	Significant
235	Mid-Atlantic Interstate Transmission LLC	BB	Watch Neg	a-	Excellent	Intermediate
236	Monongahela Power Co.	BB	Watch Neg	bb+	Strong	Significant
237	Ohio Edison Co.	BB	Watch Neg	a	Excellent	Modest
238	Pennsylvania Electric Co.	BB	Watch Neg	bbb	Excellent	Significant
239	Pennsylvania Power Co.	BB	Watch Neg	a-	Excellent	Intermediate
240	Potomac Edison Co.	BB	Watch Neg	bb+	Strong	Significant
241	Toledo Edison Co.	BB	Watch Neg	bbb	Excellent	Significant
242	Trans-Allegheny Interstate Line Co.	BB	Watch Neg	a+	Excellent	Modest
243	West Penn Power Co.	BB	Watch Neg	bbb+	Excellent	Intermediate
244	Pacific Gas & Electric Co.	BB-	Negative	bb-	Satisfactory	Significant
245	PG&E Corp.	BB-	Negative	bb-	Satisfactory	Significant

Source: S&P Global Ratings and company data.

Note: Ratings as of December 10, 2020.

El Paso Electric Company

Standard & Poor's Credit Metrics

Line	Description		TX Retail Cost of Service Amount (1)	S&P Benchmark (Medial Volatility) Intermediate (2)	Significant (3)	Aggressive (4)	Reference (5)
1	TX Rate Base	$	2,043,901,676				Schedule A-1.
2	Weighted Common Return		4.69%				Page 2, Line 2, Col. 4.
3	Pre-Tax Rate of Return		8.67%				Page 2, Line 3, Col. 5.
4	Income to Common	$	95,899,867				Line 1 x Line 2.
5	EBIT	$	177,236,535				Line 1 x Line 3.
6	Depreciation & Amortization	$	99,088,920				Schedule A-1.
7	Imputed Amortization	$	-				Response to 1st RFI, TIEC 1-14.
8	Capitalized Interest*	$	(6,396,330)				Response to 1st RFI, TIEC 1-9.
9	Deferred Income Taxes & ITC	$	5,210,767				Schedule A-1.
10	Funds from Operations (FFO)	$	193,803,224				Sum of Line 4 and Lines 6 through 9.
11	Imputed Interest Expense	$	-				Response to 1st RFI, TIEC 1-14.
12	EBITDA	$	276,325,456				Sum of Lines 5 through 7 and Line 11.
13	Adjusted Debt*	$	1,142,585,088				Page 3, Line 3, Col. 1 x RB TX Allocator.
14	Total Adjusted Debt Ratio		51.8%				Page 3, Line 4, Col 2.
15	Debt to EBITDA		4.1x	2.5x - 3.5x	3.5x - 4.5x	4.5x - 5.5x	Line 13 / Line 12.
16	FFO to Total Debt		17%	23% - 35%	13% - 23%	9% - 13%	Line 10 / Line 13.
17	Indicative Credit Rating			**BBB+**	**BBB**	**BB+**	S&P Methodology, November 19, 2013.

Sources:
Standard & Poor's: "Criteria: Corporate Methodology," November 19, 2013.
*The allocation factor was obtained from Schedule A-1.

Note:
In January 2019, S&P reported that EPE has a "BBB" bond rating, a "Strong" business profile, and a "Significant" financial profile, and falls under the 'Medial Volatility' matrix.

S&P Business/Financial Risk Profile Matrix			
Business Risk Profile	**Financial Risk Profile**		
	3 (intermediate)	4 (significant)	5 (aggressive)
1 (excellent)	a+/a	a-	bbb
2 (strong)	a-/bbb+	bbb	bb+
3 (satisfactory)	bbb/bbb-	bbb-/bb+	bb

El Paso Electric Company

Standard & Poor's Credit Metrics
(Pre-Tax Rate of Return)

Line	Description	Amount (1)	Weight (2)	Cost (3)	Weighted Cost (4)	Pre-Tax Weighted Cost (5)
1	Long-Term Debt	$ 1,303,772,980	49.00%	5.58%	2.73%	2.73%
2	Common Equity	$ 1,356,988,203	51.00%	**9.20%**	4.69%	5.94%
3	**Total**	**$ 2,660,761,183**	**100.00%**		**7.42%**	**8.67%**
4	Tax Conversion Factor					1.26582

Sources:
Schedule K-1.

El Paso Electric Company

Standard & Poor's Credit Metrics
(Off-Balance Sheet Debt)

Line	Description	Amount (1)	Weight (2)
1	Long-Term Debt	$ 1,303,772,980	46.29%
2	Short-Term Debt*	$ 155,846,154	5.53%
3	Off-Balance Sheet Debt**	$ -	0.00%
4	**Total Debt**	**$ 1,459,619,134**	**51.82%**
5	Common Equity	$ 1,356,988,203	48.18%
6	**Total**	**$ 2,816,607,337**	**100.00%**

Sources:
Schedule K-1.
*Response to 1st RFI, TIEC 1-8.
**Response to 1st RFI, TIEC 1-14.

El Paso Electric Company

S&P Adjusted Debt Ratio

(Operating Subsidiaries of Value Line Electric, Gas and Water Utilities)

(Industry Medians)

Rating	Median	% Distribution of 10 Year Average		
		<50	50 to 55	>55
AA-	45.2%	100%	0%	0%
A+	56.7%	33%	0%	67%
A	48.7%	58%	25%	17%
A-	52.1%	29%	56%	16%
BBB+	50.4%	46%	39%	14%
BBB	54.2%	13%	38%	50%

Source:
S&P Capital IQ, downloaded June 14, 2021.

El Paso Electric Company

Nelson Revised Multi-Stage Growth

30-Day DCF Model

Line	Company	30-Day AVG Stock Price[1] (1)	Annualized Dividend[2] (2)	First Stage Growth[3] (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth[4] (9)	Multi-Stage Growth DCF (10)
1	ALLETE, Inc.	$66.04	$2.52	6.50%	6.14%	5.78%	5.42%	5.06%	4.71%	4.35%	8.90%
2	Alliant Energy Corporation	$50.32	$1.61	5.67%	5.45%	5.23%	5.01%	4.79%	4.57%	4.35%	7.97%
3	Ameren Corporation	$75.98	$2.20	6.93%	6.50%	6.07%	5.64%	5.21%	4.78%	4.35%	7.91%
4	American Electric Power Company, Inc.	$80.80	$2.96	6.12%	5.82%	5.53%	5.23%	4.94%	4.64%	4.35%	8.62%
5	Avista Corporation	$43.43	$1.69	4.93%	4.84%	4.74%	4.64%	4.54%	4.44%	4.35%	8.56%
6	CMS Energy Corporation	$57.37	$1.74	7.20%	6.72%	6.25%	5.77%	5.30%	4.82%	4.35%	8.14%
7	DTE Energy Company	$126.06	$4.34	5.92%	5.65%	5.39%	5.13%	4.87%	4.61%	4.35%	8.31%
8	Duke Energy Corporation	$91.05	$3.86	5.06%	4.94%	4.82%	4.70%	4.59%	4.47%	4.35%	8.97%
9	Entergy Corporation	$93.90	$3.80	4.53%	4.50%	4.47%	4.44%	4.41%	4.38%	4.35%	8.62%
10	Evergy, Inc.	$56.79	$2.14	6.52%	6.15%	5.79%	5.43%	5.07%	4.71%	4.35%	8.85%
11	Hawaiian Electric Industries, Inc.	$39.21	$1.36	1.77%	2.20%	2.63%	3.06%	3.49%	3.92%	4.35%	7.39%
12	IDACORP, Inc.	$94.14	$2.84	3.23%	3.42%	3.60%	3.79%	3.98%	4.16%	4.35%	7.26%
13	NextEra Energy, Inc.	$74.08	$1.54	8.96%	8.19%	7.42%	6.65%	5.89%	5.12%	4.35%	7.26%
14	NorthWestern Corporation	$61.81	$2.48	3.82%	3.91%	4.00%	4.08%	4.17%	4.26%	4.35%	8.39%
15	OGE Energy Corp.	$31.63	$1.61	4.07%	4.11%	4.16%	4.21%	4.25%	4.30%	4.35%	9.57%
16	Otter Tail Corporation	$43.91	$1.56	8.00%	7.39%	6.78%	6.17%	5.56%	4.96%	4.35%	8.99%
17	Pinnacle West Capital Corporation	$77.39	$3.32	3.80%	3.89%	3.98%	4.07%	4.16%	4.26%	4.35%	8.67%
18	Portland General Electric Company	$45.11	$1.63	10.27%	9.28%	8.29%	7.31%	6.32%	5.33%	4.35%	9.74%
19	Southern Company	$59.67	$2.56	5.00%	4.89%	4.78%	4.67%	4.56%	4.45%	4.35%	9.01%
20	WEC Energy Group, Inc.	$87.03	$2.71	6.23%	5.92%	5.60%	5.29%	4.98%	4.66%	4.35%	8.01%
21	Xcel Energy Inc.	$62.44	$1.83	6.17%	5.86%	5.56%	5.26%	4.95%	4.65%	4.35%	7.78%
22	**Average**	**$67.53**	**$2.40**	**5.75%**	**5.51%**	**5.28%**	**5.05%**	**4.81%**	**4.58%**	**4.35%**	**8.42%**
23	**Median**										**8.56%**

Sources:
[1] Nelson Exhibit JEN-2, pg. 1, column 2.
[2] Nelson Exhibit JEN-2, pg. 1, column 1.
[3] Nelson Exhibit JEN-2, pg. 1, column 8.
[4] *Blue Chip Financial Forecasts*, June 1, 2021, at 2.

El Paso Electric Company

Nelson Revised Multi-Stage Growth

90-Day DCF Model

Line	Company	90-Day AVG Stock Price[1]	Annualized Dividend[2]	First Stage Growth[3]	Second Stage Growth					Third Stage Growth[4]	Multi-Stage Growth DCF
					Year 6	Year 7	Year 8	Year 9	Year 10		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	ALLETE, Inc.	$63.45	$2.52	6.50%	6.14%	5.78%	5.42%	5.06%	4.71%	4.35%	9.08%
2	Alliant Energy Corporation	$50.46	$1.61	5.67%	5.45%	5.23%	5.01%	4.79%	4.57%	4.35%	7.96%
3	Ameren Corporation	$75.87	$2.20	6.93%	6.50%	6.07%	5.64%	5.21%	4.78%	4.35%	7.91%
4	American Electric Power Company, Inc.	$81.45	$2.96	6.12%	5.82%	5.53%	5.23%	4.94%	4.64%	4.35%	8.58%
5	Avista Corporation	$40.40	$1.69	4.93%	4.84%	4.74%	4.64%	4.54%	4.44%	4.35%	8.87%
6	CMS Energy Corporation	$58.32	$1.74	7.20%	6.72%	6.25%	5.77%	5.30%	4.82%	4.35%	8.07%
7	DTE Energy Company	$123.75	$4.34	5.92%	5.65%	5.39%	5.13%	4.87%	4.61%	4.35%	8.39%
8	Duke Energy Corporation	$91.43	$3.86	5.06%	4.94%	4.82%	4.70%	4.59%	4.47%	4.35%	8.95%
9	Entergy Corporation	$97.41	$3.80	4.53%	4.50%	4.47%	4.44%	4.41%	4.38%	4.35%	8.46%
10	Evergy, Inc.	$55.11	$2.14	6.52%	6.15%	5.79%	5.43%	5.07%	4.71%	4.35%	8.98%
11	Hawaiian Electric Industries, Inc.	$36.49	$1.36	1.77%	2.20%	2.63%	3.06%	3.49%	3.92%	4.35%	7.63%
12	IDACORP, Inc.	$92.05	$2.84	3.23%	3.42%	3.60%	3.79%	3.98%	4.16%	4.35%	7.33%
13	NextEra Energy, Inc.	$76.92	$1.54	8.96%	8.19%	7.42%	6.65%	5.89%	5.12%	4.35%	7.15%
14	NorthWestern Corporation	$58.62	$2.48	3.82%	3.91%	4.00%	4.08%	4.17%	4.26%	4.35%	8.62%
15	OGE Energy Corp.	$31.79	$1.61	4.07%	4.11%	4.16%	4.21%	4.25%	4.30%	4.35%	9.54%
16	Otter Tail Corporation	$42.51	$1.56	8.00%	7.39%	6.78%	6.17%	5.56%	4.96%	4.35%	9.14%
17	Pinnacle West Capital Corporation	$78.49	$3.32	3.80%	3.89%	3.98%	4.07%	4.16%	4.26%	4.35%	8.61%
18	Portland General Electric Company	$43.11	$1.63	10.27%	9.28%	8.29%	7.31%	6.32%	5.33%	4.35%	9.97%
19	Southern Company	$60.12	$2.56	5.00%	4.89%	4.78%	4.67%	4.56%	4.45%	4.35%	8.97%
20	WEC Energy Group, Inc.	$89.03	$2.71	6.23%	5.92%	5.60%	5.29%	4.98%	4.66%	4.35%	7.93%
21	Xcel Energy Inc.	$64.27	$1.83	6.17%	5.86%	5.56%	5.26%	4.95%	4.65%	4.35%	7.68%
22	**Average**	**$67.19**	**$2.40**	**5.75%**	**5.51%**	**5.28%**	**5.05%**	**4.81%**	**4.58%**	**4.35%**	**8.47%**
23	**Median**										**8.58%**

Sources:
[1] Nelson Exhibit JEN-2, pg. 2, column 2.
[2] Nelson Exhibit JEN-2, pg. 2, column 1.
[3] Nelson Exhibit JEN-2, pg. 2, column 8.
[4] *Blue Chip Financial Forecasts*, June 1, 2021, at 2.

El Paso Electric Company

Nelson Revised Multi-Stage Growth
180-Day DCF Model

Line	Company	180-Day AVG Stock Price[1] (1)	Annualized Dividend[2] (2)	First Stage Growth[3] (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth[4] (9)	Multi-Stage Growth DCF (10)
1	ALLETE, Inc.	$59.32	$2.52	6.50%	6.14%	5.78%	5.42%	5.06%	4.71%	4.35%	9.40%
2	Alliant Energy Corporation	$52.11	$1.61	5.67%	5.45%	5.23%	5.01%	4.79%	4.57%	4.35%	7.85%
3	Ameren Corporation	$78.07	$2.20	6.93%	6.50%	6.07%	5.64%	5.21%	4.78%	4.35%	7.81%
4	American Electric Power Company, Inc.	$83.31	$2.96	6.12%	5.82%	5.53%	5.23%	4.94%	4.64%	4.35%	8.49%
5	Avista Corporation	$38.09	$1.69	4.93%	4.84%	4.74%	4.64%	4.54%	4.44%	4.35%	9.15%
6	CMS Energy Corporation	$60.48	$1.74	7.20%	6.72%	6.25%	5.77%	5.30%	4.82%	4.35%	7.94%
7	DTE Energy Company	$121.25	$4.34	5.92%	5.65%	5.39%	5.13%	4.87%	4.61%	4.35%	8.47%
8	Duke Energy Corporation	$89.07	$3.86	5.06%	4.94%	4.82%	4.70%	4.59%	4.47%	4.35%	9.07%
9	Entergy Corporation	$99.81	$3.80	4.53%	4.50%	4.47%	4.44%	4.41%	4.38%	4.35%	8.36%
10	Evergy, Inc.	$55.07	$2.14	6.52%	6.15%	5.79%	5.43%	5.07%	4.71%	4.35%	8.98%
11	Hawaiian Electric Industries, Inc.	$35.66	$1.36	1.77%	2.20%	2.63%	3.06%	3.49%	3.92%	4.35%	7.71%
12	IDACORP, Inc.	$90.21	$2.84	3.23%	3.42%	3.60%	3.79%	3.98%	4.16%	4.35%	7.39%
13	NextEra Energy, Inc.	$74.44	$1.54	8.96%	8.19%	7.42%	6.65%	5.89%	5.12%	4.35%	7.25%
14	NorthWestern Corporation	$56.00	$2.48	3.82%	3.91%	4.00%	4.08%	4.17%	4.26%	4.35%	8.82%
15	OGE Energy Corp.	$31.82	$1.61	4.07%	4.11%	4.16%	4.21%	4.25%	4.30%	4.35%	9.54%
16	Otter Tail Corporation	$40.75	$1.56	8.00%	7.39%	6.78%	6.17%	5.56%	4.96%	4.35%	9.34%
17	Pinnacle West Capital Corporation	$78.89	$3.32	3.80%	3.89%	3.98%	4.07%	4.16%	4.26%	4.35%	8.59%
18	Portland General Electric Company	$41.40	$1.63	10.27%	9.28%	8.29%	7.31%	6.32%	5.33%	4.35%	10.19%
19	Southern Company	$58.02	$2.56	5.00%	4.89%	4.78%	4.67%	4.56%	4.45%	4.35%	9.14%
20	WEC Energy Group, Inc.	$92.83	$2.71	6.23%	5.92%	5.60%	5.29%	4.98%	4.66%	4.35%	7.78%
21	Xcel Energy Inc.	$67.26	$1.83	6.17%	5.86%	5.56%	5.26%	4.95%	4.65%	4.35%	7.53%
22	**Average**	**$66.85**	**$2.40**	**5.75%**	**5.51%**	**5.28%**	**5.05%**	**4.81%**	**4.58%**	**4.35%**	**8.51%**
23	**Median**										**8.49%**

Sources:
[1] Nelson Exhibit JEN-2, pg. 3, column 2.
[2] Nelson Exhibit JEN-2, pg. 3, column 1.
[3] Nelson Exhibit JEN-2, pg. 3, column 8.
[4] *Blue Chip Financial Forecasts*, June 1, 2021, at 2.

El Paso Electric Company

Accuracy of Interest Rate Forecasts
(Long-Term Treasury Bond Yields - Projected Vs. Actual)

Line	Date	Publication Data: Prior Quarter Actual Yield (1)	Publication Data: Projected Yield (2)	Publication Data: Projected Quarter (3)	Actual Yield in Projected Quarter (4)	Projected Yield Higher (Lower) Than Actual Yield* (5)
1	Dec-00	5.8%	5.8%	1Q, 02	5.6%	0.2%
2	Mar-01	5.7%	5.6%	2Q, 02	5.8%	-0.2%
3	Jun-01	5.4%	5.8%	3Q, 02	5.2%	0.6%
4	Sep-01	5.7%	5.9%	4Q, 02	5.1%	0.8%
5	Dec-01	5.5%	5.7%	1Q, 03	5.0%	0.7%
6	Mar-02	5.3%	5.9%	2Q, 03	4.7%	1.2%
7	Jun-02	5.6%	6.2%	3Q, 03	5.2%	1.0%
8	Sep-02	5.8%	5.9%	4Q, 03	5.2%	0.7%
9	Dec-02	5.2%	5.7%	1Q, 04	4.9%	0.8%
10	Mar-03	5.1%	5.7%	2Q, 04	5.4%	0.3%
11	Jun-03	5.0%	5.4%	3Q, 04	5.1%	0.3%
12	Sep-03	4.7%	5.8%	4Q, 04	4.9%	0.9%
13	Dec-03	5.2%	5.9%	1Q, 05	4.8%	1.1%
14	Mar-04	5.2%	5.9%	2Q, 05	4.6%	1.4%
15	Jun-04	4.9%	6.2%	3Q, 05	4.5%	1.7%
16	Sep-04	5.4%	6.0%	4Q, 05	4.8%	1.2%
17	Dec-04	5.1%	5.8%	1Q, 06	4.6%	1.2%
18	Mar-05	4.9%	5.6%	2Q, 06	5.1%	0.5%
19	Jun-05	4.8%	5.5%	3Q, 06	5.0%	0.5%
20	Sep-05	4.6%	5.2%	4Q, 06	4.7%	0.5%
21	Dec-05	4.5%	5.3%	1Q, 07	4.8%	0.5%
22	Mar-06	4.8%	5.1%	2Q, 07	5.0%	0.1%
23	Jun-06	4.6%	5.3%	3Q, 07	4.9%	0.4%
24	Sep-06	5.1%	5.2%	4Q, 07	4.6%	0.6%
25	Dec-06	5.0%	5.0%	1Q, 08	4.4%	0.6%
26	Mar-07	4.7%	5.1%	2Q, 08	4.6%	0.5%
27	Jun-07	4.8%	5.1%	3Q, 08	4.5%	0.7%
28	Sep-07	5.0%	5.2%	4Q, 08	3.7%	1.5%
29	Dec-07	4.9%	4.8%	1Q, 09	3.5%	1.4%
30	Mar-08	4.6%	4.8%	2Q, 09	4.0%	0.8%
31	Jun-08	4.4%	4.9%	3Q, 09	4.3%	0.6%
32	Sep-08	4.6%	5.1%	4Q, 09	4.3%	0.8%
33	Dec-08	4.5%	4.6%	1Q, 10	4.6%	0.0%
34	Mar-09	3.7%	4.1%	2Q, 10	4.4%	-0.3%
35	Jun-09	3.5%	4.6%	3Q, 10	3.9%	0.8%
36	Sep-09	4.0%	5.0%	4Q, 10	4.2%	0.8%
37	Dec-09	4.3%	5.0%	1Q, 11	4.6%	0.4%
38	Mar-10	4.3%	5.2%	2Q, 11	4.3%	0.9%
39	Jun-10	4.6%	5.2%	3Q, 11	3.7%	1.5%
40	Sep-10	4.4%	4.7%	4Q, 11	3.0%	1.7%
41	Dec-10	3.9%	4.6%	1Q, 12	3.1%	1.5%
42	Mar-11	4.2%	5.1%	2Q, 12	2.9%	2.2%
43	Jun-11	4.6%	5.2%	3Q, 12	2.8%	2.5%
44	Sep-11	4.3%	4.2%	4Q, 12	2.9%	1.3%
45	Dec-11	3.7%	3.8%	1Q, 13	3.1%	0.7%
46	Mar-12	3.0%	3.8%	2Q, 13	3.2%	0.7%
47	Jun-12	3.1%	3.7%	3Q, 13	3.7%	0.0%
48	Sep-12	2.9%	3.4%	4Q, 13	3.8%	-0.4%
49	Dec-12	2.8%	3.4%	1Q, 14	3.7%	-0.3%
50	Mar-13	2.9%	3.6%	2Q, 14	3.4%	0.2%
51	Jun-13	3.1%	3.7%	3Q, 14	3.3%	0.4%
52	Sep-13	3.2%	4.2%	4Q, 14	3.0%	1.2%
53	Dec-13	3.7%	4.2%	1Q, 15	2.6%	1.7%
54	Mar-14	3.8%	4.4%	2Q 15	2.9%	1.5%
55	Jun-14	3.7%	4.3%	3Q 15	2.8%	1.5%
56	Sep-14	3.4%	4.3%	4Q 15	3.0%	1.3%
57	Dec-14	3.3%	4.0%	1Q 16	2.7%	1.3%
58	Mar-15	3.0%	3.7%	2Q 16	2.6%	1.1%
59	Jun-15	2.6%	3.7%	3Q 16	2.3%	1.4%
60	Sep-15	2.9%	3.8%	4Q 16	2.8%	1.0%
61	Dec-15	2.8%	3.7%	1Q 17	3.0%	0.7%
62	Mar-16	3.0%	3.5%	2Q 17	2.9%	0.6%
63	Jun-16	2.7%	3.4%	3Q 17	2.8%	0.6%
64	Sep-16	2.6%	3.1%	4Q 17	2.8%	0.3%
65	Dec-16	2.3%	3.4%	1Q 18	3.0%	0.4%
66	Mar-17	2.8%	3.7%	2Q 18	3.1%	0.6%
67	Jun-17	3.0%	3.7%	3Q 18	3.1%	0.6%
68	Sep-17	2.9%	3.6%	4Q 18	3.3%	0.3%
69	Dec-17	2.8%	3.6%	1Q 19	3.0%	0.6%
70	Mar-18	2.8%	3.7%	2Q 19	2.8%	0.9%
71	Jun-18	3.0%	3.8%	3Q 19	2.3%	1.5%
72	Sep-18	3.1%	3.7%	4Q 19	2.3%	1.4%
73	Dec-18	3.1%	3.7%	1Q 20	1.9%	1.8%
74	Mar-19	3.3%	3.4%	2Q 20	1.4%	2.0%
75	Jun-19	3.0%	3.1%	3Q 20	1.4%	1.7%
76	Sep-19	2.8%	2.6%	4Q 20	1.6%	1.0%
77	Oct-19	2.3%	2.5%	1Q 21	2.1%	0.4%
78	Nov-19	2.3%	2.5%	1Q 21	2.1%	0.4%
79	Dec-19	2.3%	2.5%	1Q 21	2.1%	0.4%
80	Jan-20	2.3%	2.6%	2Q 21	2.3%	0.3%
81	Feb-20	2.3%	2.6%	2Q 21	2.3%	0.3%
82	Mar-20	2.3%	2.5%	2Q 21	2.3%	0.2%
83	Apr-20	1.9%	2.0%	3Q 21		
84	May-20	1.9%	1.8%	3Q 21		
85	Jun-20	1.9%	1.9%	3Q 21		
86	Jul-20	1.4%	1.9%	4Q 21		
87	Aug-20	1.4%	1.9%	4Q 21		
88	Sep-20	1.4%	1.8%	4Q 21		
89	Oct-20	1.4%	1.9%	1Q 22		
90	Nov-20	1.4%	2.0%	1Q 22		
91	Dec-20	1.4%	2.0%	1Q 22		
92	Jan-21	1.6%	2.1%	2Q 22		
93	Feb-21	1.6%	2.2%	2Q 22		
94	Mar-21	1.6%	2.4%	2Q 22		
95	Apr-21	2.1%	2.7%	3Q 22		
96	May-21	2.1%	2.8%	3Q 22		
97	Jun-21	2.1%	2.8%	3Q 22		
98	Jul-21	2.3%	2.7%	4Q 22		
99	Aug-21	2.3%	2.6%	4Q 22		
100	Sep-21	2.3%	2.6%	4Q 22		

Source:
Blue Chip Financial Forecasts, Various Dates.
* Col. 2 - Col. 4.

SOAH DOCKET NO. 473-21-2606
PUC DOCKET NO. 52195

APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	))))	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

Texas Industrial Energy Consumers

REDACTED

October 22, 2021

BRUBAKER & ASSOCIATES, INC.

SOAH DOCKET NO. 473-21-2606
PUC DOCKET NO. 52195

APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	))))	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

Filename: MPG_DT

Page

SOAH DOCKET NO. 473-21-2606
PUC DOCKET NO. 52195

APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	)	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

Affidavit of Michael P. Gorman

State of Missouri)
) **SS**
County of Saint Louis)

Michael P. Gorman, being first duly sworn, on his oath states:

1. My name is Michael P. Gorman. I am a Managing Principal with Brubaker & Associates, Inc., 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017. We have been retained by Texas Industrial Energy Consumers to testify in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my direct testimony and exhibits which were prepared in written form for introduction into evidence in SOAH Docket No. 473-21-2606, Public Utility Commission of Texas Docket No. 52195.

3. I hereby swear and affirm that the testimony and exhibits are true and correct and that they show the matters and things that they purport to show.

_____
Michael P. Gorman

Subscribed and sworn to before me this 22nd day of October, 2021.

_____
Notary Public

SOAH DOCKET NO. 473-21-2606
PUC DOCKET NO. 52195

APPLICATION OF EL PASO ELECTRIC COMPANY TO CHANGE RATES	))))	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

Direct Testimony of Michael P. Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and a Managing Principal of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to this testimony.

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A My testimony will address El Paso Electric Company's ("EPE" or "Company") overall rate of return including return on equity, embedded debt cost, and ratemaking capital structure.

Q DOES THE FACT THAT YOU DID NOT ADDRESS EVERY ISSUE RAISED IN EPE'S TESTIMONY MEAN THAT YOU AGREE WITH EPE'S TESTIMONY ON THOSE ISSUES?

A No. It merely reflects that I chose not to address all those issues in my testimony. It should not be read as an endorsement of, or agreement with, EPE's position on such issues.

Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS ON RETURN ON EQUITY.

A I recommend the Public Utility Commission of Texas ("Commission" or "PUCT") award a return on common equity in the range of 9.00% to 9.40%, with a midpoint of 9.20%. This return on equity reflects EPE's current market cost of equity. I recommend the Commission approve a return on equity that reflects fair compensation for EPE's level of investment risk, and impose tariff rate charges on customers that are no more expensive than necessary to fairly compensate the Company and maintain its financial integrity and credit standing.

Q ARE YOU RECOMMENDING AN OVERALL RATE OF RETURN FOR EPE IN THIS CASE?

A Yes. As shown on my Exhibit MPG-1, my recommended overall rate of return is 7.42%, which reflects my recommended return on equity of 9.20% and the Company's proposed capital structure.

Q PLEASE DESCRIBE HOW YOUR TESTIMONY IS ORGANIZED.

A First, I provide observable evidence on current market costs and regulatory support for financial integrity, credit standing, and access to capital. Second, I estimate EPE's

current market cost of equity using market-based cost of capital models to estimate the current market-required return on equity that investors demand to assume the investment risk similar to EPE. Third, I rely on my recommended rate of return and the Company's test year filing to develop credit metrics, which demonstrate that my recommended rate of return for EPE will support its investment grade bond rating, and support its access to capital. Finally, I respond to EPE witness Ms. Jennifer E. Nelson's recommended return on equity. Ms. Nelson recommends a return on equity in the range of 9.75% to 10.75%, and point estimate of 10.30%. I comment on her analysis and show that her recommended return on equity substantially exceeds the current market cost of capital for companies with investment risk similar to that of EPE. Ms. Nelson's recommended return on equity unnecessarily inflates EPE's claimed revenue deficiency, and would increase rates beyond a just and reasonable level.

I. CAPITAL MARKET OBSERVABLE EVIDENCE

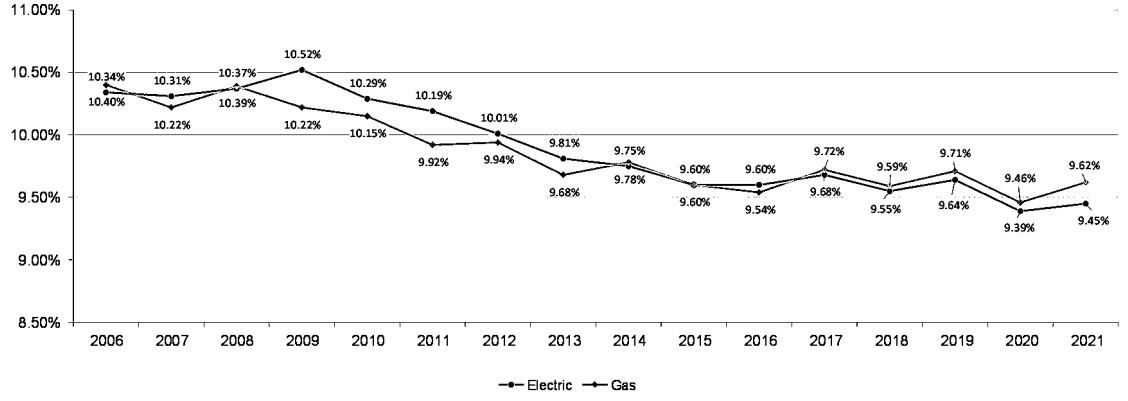
I.A Utility Industry Authorized Returns on Equity, Access to Capital, and Credit Strength

Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN AUTHORIZED RETURNS ON EQUITY FOR REGULATED UTILITIES.

A As illustrated in Figure 1 below, national average authorized returns on equity for both electric and gas utilities have ranged between 9.45% to 9.75% for the last eight years (2014-2021 to date).

FIGURE 1

**Authorized Returns on Equity*
(Exclude Limited Issue Riders)**



ROE Distributions[2]

Electric Utilities	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<= Average	50.0%	55.2%	43.3%	61.8%	51.1%	54.3%	47.6%	51.6%	51.9%	59.1%	54.2%	60.0%	50.0%	37.9%	42.4%	55.6%
> Average	50.0%	44.8%	56.7%	38.2%	48.9%	45.7%	52.4%	48.4%	48.1%	40.9%	45.8%	40.0%	50.0%	62.1%	57.6%	44.4%
Gas Utilities																
<= Average	33.3%	48.1%	36.4%	40.9%	65.4%	18.2%	36.0%	50.0%	38.1%	46.2%	52.9%	62.5%	43.8%	39.1%	57.1%	53.8%
> Average	66.7%	51.9%	63.6%	59.1%	34.6%	81.8%	64.0%	50.0%	61.9%	53.8%	47.1%	37.5%	56.3%	60.9%	42.9%	46.2%

Source and Notes:
[1] *S&P Global Market Intelligence*, RRA Regulatory Focus, Major Rate Case Decisions -- January - June 2021, July 27, 2021, p. 1.
[2] Download from S&P Global Market Intelligence, September 15, 2021.
* Electric Returns exclude Limited Issue Rider Decisions.
* RRA excludes the 2017 Alaska ENSTAR decision from its Industry Average.

I.B. Access to Capital

Q HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO SUPPORT CAPITAL EXPENDITURE PROGRAMS?

A Yes. In its April 8, 2021 Utility Capital Expenditures Update report, *RRA Financial Focus*, a division of S&P Global Market Intelligence, made several relevant comments about utility investments generally:

- Projected 2020 capital expenditures for the 47 energy utilities in the Regulatory Research Associates, a group within S&P Global Market Intelligence, universe currently stands at roughly $141.3 billion, well above 2019's $120.7 billion in capital investment.

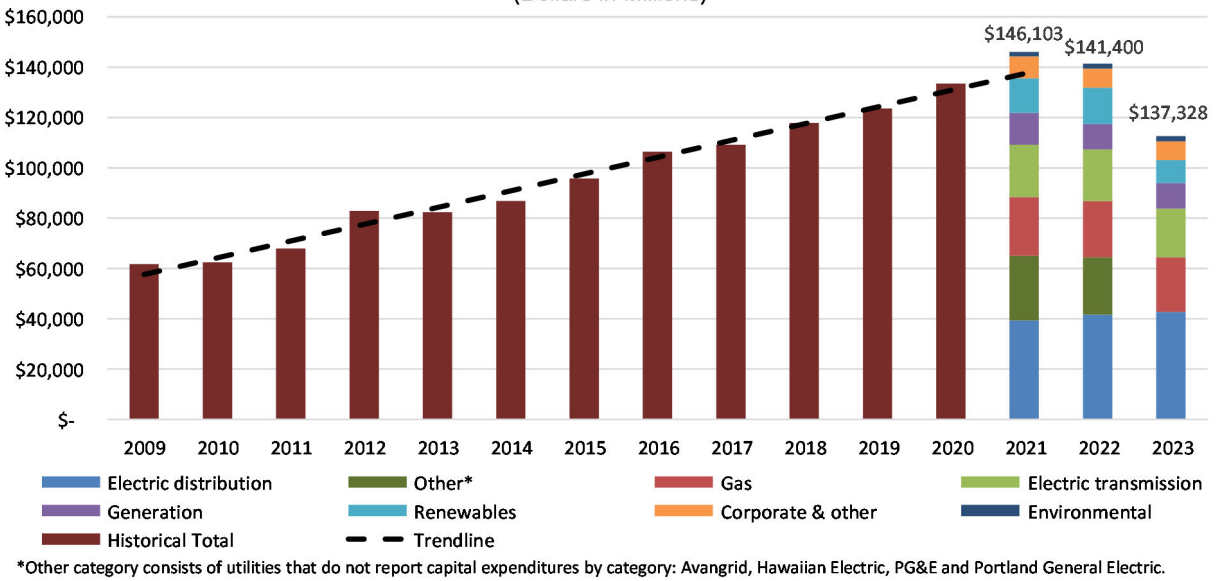
- 2020 energy utility capital expenditures marked a record high and were more than 7.75% above the $120.7 billion that the energy utility industry invested in 2019, despite that the coronavirus pandemic interrupted certain supply chains for a period of months in some instances.

- 2021 appears on track to be another record year for energy infrastructure investments. Assuming current projections hold, investment across the RRA covered energy utility industry may rise by 9% or more this year.[1]

As shown in Figure 2 below, capital expenditures for electric and natural gas utilities have increased considerably over the period 2020 into 2021, and the forecasted capital expenditures remain elevated through 2022, albeit falling below current levels in 2023.

FIGURE 2

Utility Capital Expenditures
(Dollars in Millions)



*Other category consists of utilities that do not report capital expenditures by category: Avangrid, Hawaiian Electric, PG&E and Portland General Electric.
Source: *S&P Global Market Intelligence, RRA Financial Focus*, Utility Capital Expenditures Update, April 8, 2021, Tables 1 and 3.

As outlined in Figure 2 above, and in the comments made by *RRA S&P Global Market Intelligence*, capital investments for the utility industry continue to stay at elevated levels, and these capital expenditures are expected to fuel utilities' profit growth into the foreseeable future. This is clear evidence that the capital investments are enhancing shareholder value, and are attracting both equity and debt capital to the utility industry in a manner that allows for these elevated capital investments. While

[1] *S&P Global Market Intelligence, RRA Financial Focus*: "Utility Capital Expenditures Update," April 8, 2021, at 1-2.

capital markets embrace these profit-driven capital investments, regulatory commissions also must be careful to maintain reasonable prices and tariff terms and conditions to protect customers' need for reliable utility service but at competitive tariff prices.

I.C. Utility Access to Equity Capital

Q IS THERE EVIDENCE OF ROBUST VALUATIONS OF REGULATED UTILITY EQUITY SECURITIES?

A Yes. Robust valuations are an indication that utilities can sell securities at high prices, which is a strong indication that they can access equity capital under reasonable terms and conditions, and at relatively low cost. As shown on my Exhibit MPG-2, utility valuation metrics show robust valuation of utility electric securities more recently compared to the historical period extending back to 2002. Specifically, page 1 of this exhibit shows *The Value Line Investment Survey* ("*Value Line*") electric utility industry price-to-earnings ratio of 20.19x, compared to a 20-year average price-to-earnings ratio of around 17.15x. The market price-to-cash flow currently is 9.79x, compared to the 20-year average of 7.56x (page 2). Finally, the current market-to-book ratio for the utility industry is 2.12x, compared to the 17-year average of 1.74x (page 3). Utility valuation metrics exhibit strong valuations in the marketplace for utility securities, which is a clear indication that utilities have access to external capital markets under favorable prices.

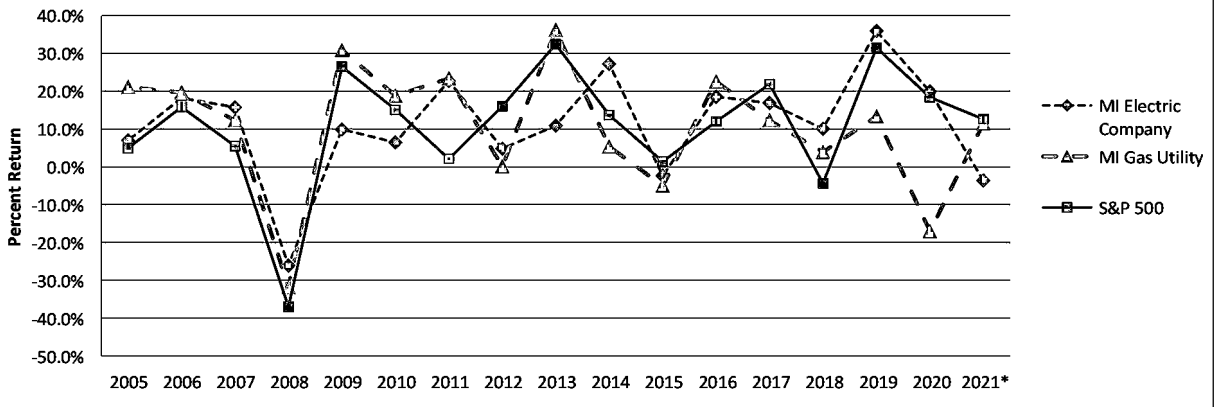
Q PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE LAST SEVERAL YEARS.

A As shown in Figure 3 below, S&P Global Market Intelligence ("MI") has recorded utility stock price performance compared to the market. The industry's stock performance

data from 2005 through 2021 shows that the MI Electric Company and MI Gas Utility Indexes have followed the market through downturns and recoveries. However, utility investments have been less volatile during extreme market downturns. This more stable price performance for utilities supports my conclusion that market participants regard utility stock sectors as a moderate- to low-risk investment option.

FIGURE 3

Index Comparison



Source: S&P Global Market Intelligence.
***Data through May 2021**

While utility stocks have not exhibited the same volatility as the S&P 500, stock prices have remained strong, relative to the market in general, and support the utilities' access to equity capital markets under reasonable terms and prices.

Q HOW SHOULD THE COMMISSION USE THIS MARKET INFORMATION IN ASSESSING A FAIR RETURN FOR EPE?

A Observable market evidence demonstrates that capital market costs are near historically low levels. While authorized returns on equity have fallen below the mid-9% range, utilities continue to have access to large amounts of external capital, even as they are funding large capital expenditure programs. Furthermore, utilities' investment-grade credit ratings are stable and have improved, due in part to supportive

regulatory treatment. The Commission should carefully weigh all this important observable market evidence in assessing a fair return on equity for EPE.

I.D. Federal Reserve's Impact on Cost of Capital

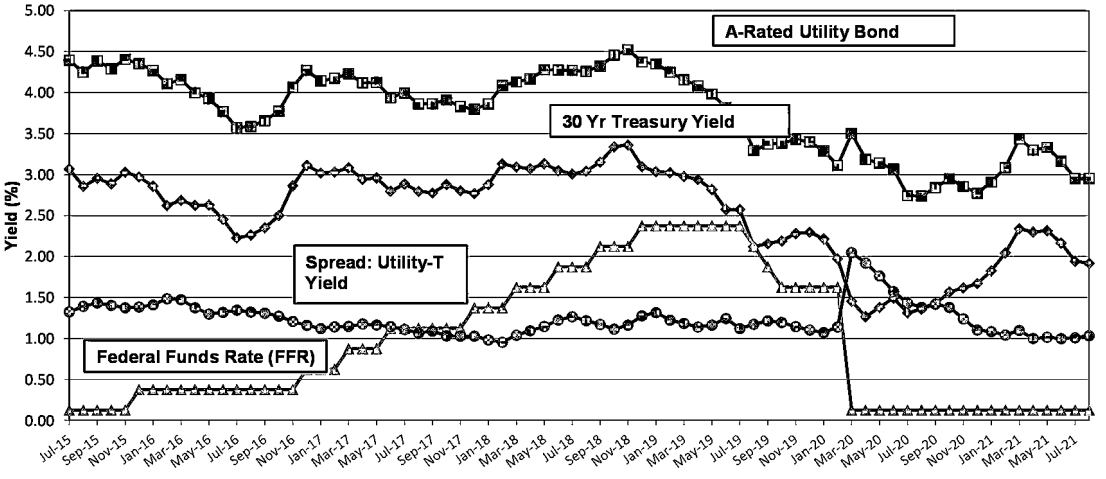
Q ARE THE FEDERAL RESERVE'S MONETARY OPEN MARKET COMMITTEE ACTIONS KNOWN TO THE MARKET PARTICIPANTS, AND IS IT REASONABLE TO BELIEVE THEY ARE REFLECTED IN THE MARKET'S VALUATION OF BOTH DEBT AND EQUITY SECURITIES?

A Yes. The Federal Reserve has been quite public about its efforts to support the economy to achieve maximum employment, and to manage long-term inflation to around a 2% level. The Federal Reserve has implemented procedures to support the economy's efforts to achieve these policy objectives. Specifically, in March 2020 the Federal Reserve lowered the Federal Overnight Rate for securities, and has engaged once again in a Quantitative Easing program where the Federal Reserve is buying on a monthly basis Treasury and mortgage-backed securities in order to moderate the demand in the marketplaces and support the economy. All of these actions are known by market participants because the Federal Reserve is transparent in its monetary policies.

An assessment of the market's reaction to the Federal Reserve's actions on the Federal Funds Rate is shown below in Figure 4.

FIGURE 4

Timeline of Federal Funds Rate Changes Since 2015



Fed FFR Actions:

1	December 2015	0.25	→	0.50	8	September 2018	2.00	→	2.25
2	December 2016	0.50	→	0.75	9	December 2018	2.25	→	2.50
3	March 2017	0.75	→	1.00	10	August 2019	2.00	→	2.25
4	June 2017	1.00	→	1.25	11	September 2019	1.75	→	2.00
5	December 2017	1.25	→	1.50	12	October 2019	1.50	→	1.75
6	March 2018	1.50	→	1.75	13	March 2020	1.00	→	1.25
7	June 2018	1.75	→	2.00	14	March 2020	0.00	→	0.25

Sources:
Federal Reserve Bank of New York, https://apps.newyorkfed.org/markets/autorates/fed-funds-search-page
Board of Governors of the Federal Reserve System, https://www.federalreserve.gov/datadownload/
Moody's Credit Trends, https://credittrends.moodys.com/

As shown in Figure 4 above, while the Federal Reserve has reduced short-term interest rates currently, as it did back in the period prior to 2015, the market's valuation of long-term securities remains relatively stable, and at very low costs. The Federal Reserve's interaction in short-term securities is specifically stated to manage inflation and support employment in the economy. The Federal Reserve's interaction in these marketplaces is not to manipulate utility valuation or security valuations, or drive capital market costs in one direction or the other. Rather, it is strictly for the purpose of supporting the U.S. economy.

Q HAS THE FEDERAL RESERVE MADE RECENT COMMENTS CONCERNING MONETARY POLICY AND THE POTENTIAL IMPACT ON INTEREST RATES?

A Yes. Again, the Federal Reserve states the Federal Open Market Committee "seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run."[2] The Federal Reserve has recently stated that containing the target Federal Funds Rate at the 0 to 1/4% rate will be maintained until labor market conditions have reached levels consistent with the Committee's assessments of maximum employment, and inflation has risen to 2% and is on track to moderately exceed the 2% longer outlook over time.[3]

In a speech by Federal Reserve Member Christopher Waller, he noted short-term inflation has picked up recently above the 2% long-term objective, and he states the concern of this short-term inflation outlook is tempered by a number of factors that suggest these elevated readings on inflation are likely to prove temporary.[4]

Also, in Federal Reserve Chairman Jerome Powell's recent testimony, he indicated that the Federal Reserve may begin reducing its purchases of Treasury and mortgage-backed securities toward the end of this year, 2021. He stated that the strength of the employment levels and moderation of long-term inflation outlooks may support this action.[5]

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[2] Federal Reserve press release, July 28, 2021.

[3] *Id*.

[4] The Economic Outlook and a Cautionary Tale on "Idiosyncratic" Price Changes and Inflation, Remarks by Christopher J. Waller, Member, Board of Governors of the Federal Reserve System at the Stanford Institute for Economic Policy Research Associates Meeting, Stanford, California, October 19, 2021.

[5] Federal Reserve press release, July 28, 2021

Q WHAT DO INDEPENDENT ECONOMISTS' OUTLOOKS FOR FUTURE INTEREST RATES INDICATE?

A Independent economists expect the current low capital costs to prevail over at least the intermediate term. This is illustrated in projections for both short- and long-term changes in interest rates. Further, there is a clear trend in forecasted changes in interest rates over time, indicating that capital market participants are becoming more comfortable with today's low-cost capital market environment and expect it to prevail over at least the intermediate future.

For example, short-term projections suggest that the market expects capital market costs to remain relatively low. Table 1 below shows capital cost projections over the next two years, and demonstrates that projected Treasury bond yields are not expected to increase significantly over the this projection period.

TABLE 1

Blue Chip Financial Forecasts
Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

Publication Date	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022
Federal Funds Rate									
Mar-21	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Apr-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1	
May-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Jun-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Jul-21			0.1	0.1	0.1	0.1	0.1	0.1	0.1
Aug-21			0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sep-21			0.1	0.1	0.1	0.1	0.1	0.1	0.1
T-Bond, 30 yr.									
Mar-21	**1.6**	2.0	2.1	2.2	2.3	2.4	2.4		
Apr-21		2.1	2.4	2.5	2.5	2.6	2.7	2.7	
May-21		**2.1**	2.4	2.5	2.6	2.7	2.7	2.8	
Jun-21		**2.1**	2.4	2.5	2.6	2.6	2.7	2.8	
Jul-21			2.3	2.4	2.5	2.6	2.6	2.7	2.7
Aug-21			**2.3**	2.1	2.3	2.4	2.5	2.6	2.6
Sep-21			**2.3**	2.1	2.2	2.3	2.5	2.5	2.6
GDP Price Index									
Mar-21	2.1	2.2	1.8	1.9	1.9	1.9	2.0		
Apr-21		2.2	2.1	2.1	2.0	1.9	2.1	2.2	
May-21		4.1	2.4	2.2	2.1	2.2	2.2	2.2	
Jun-21		4.3	3.3	2.5	2.1	2.2	2.2	2.3	
Jul-21			4.6	3.0	2.3	2.3	2.3	2.3	2.3
Aug-21			6.0	3.7	2.5	2.4	2.3	2.3	2.3
Sep-21			6.1	4.2	2.8	2.4	2.3	2.4	2.3

Source and Note:
Blue Chip Financial Forecasts, January 2021 through September 2021.
Actual Yields in Bold

Further, the outlook for long-term interest rates in the intermediate to longer term is also impacted by the current Federal Reserve actions and the expectation that eventually the Federal Reserve's monetary actions will return to more normal levels. Long-term interest rate projections are illustrated in Table 2 below.

TABLE 2

30-Year Treasury Bond Yield Actual and Projection

Description	Actual	2-Year Projected*	5- to 10-Year Projected
2015			
Q1	2.55%	3.80%	
Q2	2.89%	3.70%	4.8% - 5.0%
Q3	2.84%	3.90%	
Q4	2.96%	3.80%	4.5% - 4.8%
2016			
Q1	2.72%	3.67%	
Q2	2.64%	3.50%	4.3% - 4.6%
Q3	2.28%	3.20%	
Q4	2.82%	3.20%	4.2% - 4.5%
2017			
Q1	3.04%	3.70%	
Q2	2.91%	3.73%	4.3% - 4.5%
Q3	2.82%	3.66%	
Q4	2.82%	3.60%	4.1% - 4.3%
2018			
Q1	3.02%	3.63%	
Q2	3.09%	3.80%	4.2% - 4.4%
Q3	3.07%	3.73%	
Q4	3.27%	3.67%	3.9% - 4.2%
2019			
Q1	3.01%	3.50%	
Q2	2.78%	3.17%	3.6% - 3.8%
Q3	2.30%	2.70%	
Q4	2.30%	2.50%	3.2% - 3.7%
2020			
Q1	1.88%	2.57%	
Q2	1.38%	1.90%	3.0% - 3.8%
Q3	1.36%	1.87%	
Q4	1.62%	1.97%	2.8% - 3.6%
2021			
Q1	2.07%	2.23%	
Q2	2.26%	2.77%	3.5% - 3.9%
Q3		2.63%	

Source and Note:
Blue Chip Financial Forecasts, January 2015 through September 2021.
*Average of all 3 reports in Quarter.

As outlined in Table 2 above, the outlook for increases in interest rates has jumped more recently relative to 2020, but is still relatively modest compared to time periods prior to the beginning of the worldwide pandemic. Indeed, today's relatively low capital market costs are expected to prevail at least in the short-term out over the next five to ten years. While there may be some upward movement in cost of capital, that upward movement is uncertain, but is not expected to be significant.

Moreover, while economists are projecting a modest increase in interest rates relative to those published in the past, as noted below, these projections of increases in interest rates are at very best uncertain. But more specifically, the projected increases relative to the past are relatively modest, and demonstrate that EPE's proposal to increase its authorized return on equity in this case to 10.3% is simply not reflective of current market capital costs, particularly in comparison to its authorized return on equity of 9.65% in its last Texas case,[6] and 9.0% in its most recent New Mexico case.[7]

II. EPE INVESTMENT RISK

Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF EPE'S INVESTMENT RISK.

A The market's assessment of EPE's investment risk is described by credit rating analysts' reports. EPE witness Ms. Lisa D. Budtke testified that EPE has a "Stable" outlook and current credit ratings from Fitch and Moody's of BBB and Baa2, respectively.[8] The Company maintains that it no longer has a credit rating from S&P.

Specifically, Fitch states the following concerning EPE:

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[6] Public Utility Commission of Texas Docket No. 46831, December 18, 2017 Order at 5.

[7] New Mexico Public Regulation Commission Docket No. 20-00104-UT, June 23, 2021 Order at 1-2.

[8] Budtke Direct Testimony at 11.

KEY RATING DRIVERS

Regulated Operations: EPE is a vertically integrated electric utility serving customers in west Texas and southern New Mexico. About 77% of the customer base is in Texas, which Fitch considers a good service territory given strong economic growth.

* * *

Relatively Challenging Regulatory Environment: Fitch considers Texas and New Mexico challenging regulatory environments, New Mexico in particular, which is approximately 20% of EPE's revenues. Both states have typically utilized historical test year filings, with partial true ups. Regulatory lag from the use of a historical test year in Texas and other factors in the rate-setting process in New Mexico have made it difficult for EPE to earn its authorized ROEs.

Offsetting some of the challenges are supportive rate mechanisms such as fuel and purchased power recovery mechanisms and riders for energy efficiency program costs. Additionally, in Texas, EPE is able to recover its investment in distribution and transmission through riders, which provide some protection from regulatory lag in between rate cases.

* * *

Significant Ring-fencing Measures: On July 29, 2020, EPE was acquired by Sun Jupiter, a wholly-owned indirect subsidiary of IIF, an investment vehicle advised by JPMIM. Sun Jupiter was created solely for the purpose to acquire and own EPE. The utility is ring-fenced from Sun Jupiter with strong legal provisions including a majority independent board (7/10), separate books/record keeping, no pooled cash, no cross defaults, no intercompany lending, no credit guarantees, a non-consolidation opinion, and restrictions on dividends, which are limited to net income and must keep EPE in compliance with authorized regulatory equity ratios.

In addition, EPE must maintain 'BBB' credit ratings from at least one major credit ratings agency (out of two) to be able to pay dividends, except for contractual tax payments, until otherwise ordered by the Public Utilities Commission of Texas (PUCT) and NMPRC or EPE's credit rating at one of the major credit rating agencies returns to 'BBB'. IIF has committed to maintain a controlling ownership interest in EPE for at least 10 years post-closing.[9]

[9] FitchRatings, Fitch Affirms El Paso Electric's IDR at 'BBB'; Outlook Stable (fitchratings.com), May 25, 2021 [emphasis added].

REDACTED

Similarly, Moody's states:

[redacted][10]

[10] *Moody's Investors Service Credit Opinion*: "El Paso Electric Company, Update to credit analysis," September 21, 2020, provided by EPE as CONFIDENTIAL Response to Staff's 2nd, Q. No. STAFF 2-36, Attachment 1, Pages 35-36.

II.A. EPE's Proposed Capital Structure

Q WHAT IS EPE'S PROPOSED CAPITAL STRUCTURE?

A EPE's proposed capital structure is sponsored by EPE witness Ms. Lisa Budtke and shown in Table 3 below.

TABLE 3

EPE's Proposed Capital Structure
(December 31, 2020)

Description	Weight
Long-Term Debt	49.00%
Common Equity	51.00%
Total Regulatory Capital Structure	100.00%

Source: Schedule K-1.

EPE's capital structure is based on adjusted capital balances for the period ending December 31, 2020. I am not taking issue with the Company's proposed ratemaking capital structure.

II.B. Embedded Cost of Debt

Q WHAT ARE EPE'S FORECASTED AVERAGE COSTS OF LONG-TERM DEBT?

A EPE's cost of embedded long-term debt is 5.576% as developed on Schedule K-3 and discussed in the direct testimony of Ms. Budtke.

III. MARKET RETURN ON EQUITY

Q PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON EQUITY."

A A utility's cost of common equity is the expected return that investors require on an investment in the utility. Investors expect to earn their required return from receiving dividends and through stock price appreciation.

Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED UTILITY'S COST OF COMMON EQUITY.

A In general, determining a fair cost of common equity for a regulated utility has been framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). In these decisions, the Supreme Court found that just compensation depends on many circumstances and must be determined by fair and enlightened judgments based on relevant facts. The Court found that a utility is entitled to such rates as were permitted to earn a return on a property devoted to the convenience of the public that is generally consistent with the same returns available in other investments of corresponding risk. The Court continued that the utility has no constitutional rights to profits such as those realized or anticipated in highly profitable enterprises or speculative ventures, and defined the ratepayer/investor balance as follows:

> The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.[11]

[11] *Bluefield,* 262 U.S. 679, 693 (1923), emphasis added.

As such, a fair rate of return is based on the expectation that the utility's costs reflect efficient and economical management, and the return will support its credit standing and access to capital, without being in excess of this level. From these standards, rates to customers will be just and reasonable, and under economic management, compensation to the utility will be fair and support financial integrity and credit standing.

III.A. Risk Proxy Group

Q PLEASE DESCRIBE HOW YOU IDENTIFIED A PROXY UTILITY GROUP THAT COULD BE USED TO ESTIMATE EPE'S CURRENT MARKET COST OF EQUITY.

A I relied on the same proxy group developed by EPE witness Ms. Nelson with one exception. I excluded Duke Energy Corporation because at the beginning of the year the company reached an agreement to sell one of its major regulated subsidiaries – Duke Indiana.

Excluding companies that are involved in major acquisition or merger activity is appropriate because after these merger and acquisition ("M&A") activities are announced the market valuation of the securities may not accurately reflect the stand-alone valuation of the company, but rather may anticipate enhanced valuation from the proposed M&A action. Therefore, removing them from the proxy group is necessary because the resulting DCF, CAPM and Risk Premium analyses on these specific companies can be distorted and/or would simply be unreliable.

Q PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS REASONABLY COMPARABLE IN INVESTMENT RISK TO EPE.

A My proxy group shown in Exhibit MPG-3. The proxy group has an average credit rating from Moody's of Baa1, which is a notch higher than, but comparable to, EPE's Moody's rating of Baa2.[12]

My proxy group has an average common equity ratio of 42.7% from S&P (including short-term debt) and a 46.2% equity ratio from *Value Line* (excluding short-term debt). EPE's long-term debt ratio of 51.0% is less leveraged than that of the proxy group average of 46.2%.

III.B. DCF Model

Q PLEASE DESCRIBE THE DCF MODEL.

A The DCF model posits that a stock price is valued by summing the present value of expected future cash flows discounted at the investor's required rate of return or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \ldots . \frac{D_\infty}{(1+K)^\infty} \qquad \text{(Equation 1)}$$

P_0 = Current stock price
D = Dividends in periods 1 - ∞
K = Investor's required return

This model can be rearranged in order to estimate the discount rate or investor-required return, known as "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

[12] Nelson Direct Testimony at 30, Table 5.

$$K = D_1/P_0 + G \qquad \text{(Equation 2)}$$

K = Investor's required return
D_1 = Dividend in first year
P_0 = Current stock price
G = Expected constant dividend growth rate

Equation 2 is referred to as the annual "constant growth" DCF model.

Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.

A As shown in Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

Q WHAT STOCK PRICE DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A I relied on the average of the weekly high and low stock prices of the utilities in the proxy group over a 13-week period ending on September 10, 2021. An average stock price is less susceptible to market price variations than a price at a single point in time. Therefore, an average stock price is less susceptible to aberrant market price movements, which may not reflect the stock's long-term value.

A 13-week average stock price reflects a period that is still short enough to contain data that reasonably reflects current market expectations, but the period is not so short as to be susceptible to market price variations that may not reflect the stock's long-term value. In my judgment, a 13-week average stock price is a reasonable balance between the need to reflect current market expectations and the need to capture sufficient data to smooth out aberrant market movements.

Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A I used the most recently paid quarterly dividend as reported in *Value Line*.[13] This dividend was annualized (multiplied by 4) and adjusted for next year's growth to produce the D_1 factor for use in Equation 2 above. In other words, I calculate D_1 by multiplying the annualized dividend (D_0) by (1+G).

Q WHAT DIVIDEND GROWTH RATES DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A There are several methods that can be used to estimate the expected growth in dividends. However, regardless of the method, to determine the market-required return on common equity, one must attempt to estimate investors' consensus about what the dividend, or earnings growth rate, will be and not what an individual investor or analyst may use to make individual investment decisions.

As predictors of future returns, securities analysts' growth estimates have been shown to be more accurate than growth rates derived from historical data.[14] That is, assuming the market generally makes rational investment decisions, analysts' growth projections are more likely to influence investors' decisions, which are captured in observable stock prices, than growth rates derived only from historical data.

For my constant growth DCF analysis, I have relied on a consensus, or mean, of professional securities analysts' earnings growth estimates as a proxy for investor consensus dividend growth rate expectations. I used the average of analysts' growth rate estimates from three sources: Zacks, MI, and Yahoo! Finance. All such projections were available on September 10, 2021, and all were reported online.

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[13] *The Value Line Investment Survey*, June 11, July 23, and August 13, 2021.

[14] *See, e.g.*, David Gordon, Myron Gordon & Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

Each consensus growth rate projection is based on a survey of securities analysts. There is no clear evidence whether a particular analyst is most influential on general market investors. Therefore, a single analyst's projection does not as reliably predict consensus investor outlooks as does a consensus of market analysts' projections. The consensus estimate is a simple arithmetic average, or mean, of surveyed analysts' earnings growth forecasts. A simple average of the growth forecasts gives equal weight to all surveyed analysts' projections. Therefore, a simple average, or arithmetic mean, of analyst forecasts is a good proxy for market consensus expectations.

Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH DCF MODEL?

A The growth rates I used in my DCF analysis are shown in Exhibit MPG-4. The average growth rate for my proxy group is 5.58%.

Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?

A As shown in Exhibit MPG-5, the average and median constant growth DCF returns for my proxy group for the 13-week analysis are 9.07% and 9.44%, respectively.

Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT GROWTH DCF ANALYSIS?

A Yes. The constant growth DCF analysis for my proxy group is based on an average long-term sustainable growth rate of 5.58%. The three- to five-year growth rate is higher than my estimate of a maximum long-term sustainable growth rate of 4.35%.

Q HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE GROWTH RATE?

A The long-term sustainable growth rate for a utility stock cannot exceed the growth rate of the economy in which it sells its goods and services. The long-term maximum sustainable growth rate for a utility investment is, accordingly, best proxied by the projected long-term Gross Domestic Product ("GDP") growth rate as that reflects the projected long-term growth rate of the economy as a whole. While growth rates on shorter periods can exceed the GDP growth rate, those short-term growth periods are likely followed by other periods where the growth rate is below the GDP. On average over long periods of time, the growth rate is most accurately approximated by the long-term growth rate outlooks of the U.S. GDP.

Blue Chip Financial Forecasts projects that over the next 5 and 10 years, the U.S. nominal GDP will grow at an annual rate of approximately 4.35%. These GDP growth projections reflect a real growth outlook of around 2.15% and an inflation outlook of around 2.15% going forward. As such, the average nominal growth rate over the next 10 years is around 4.35%, which I believe is a reasonable proxy of long-term sustainable growth.[15]

Q DO YOU CITE ANY AUTHORITATIVE SUPPORT FOR USING LONG-TERM GDP GROWTH AS A MAXIMUM SUSTAINABLE GROWTH RATE?

A Yes. In my multi-stage growth DCF analysis, I discuss academic and investment practitioner support for using the projected long-term GDP growth outlook as a maximum sustainable growth rate projection. Using the long-term GDP growth rate, however, as a conservative projection for the maximum sustainable growth rate is

[15] *Blue Chip Financial Forecasts*, June 1, 2021, at 14.

logical, and is generally consistent with academic and economic practitioner accepted practices.

III.C. Sustainable Growth DCF

Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.

A A sustainable growth rate is based on the percentage of the utility's earnings that is retained and reinvested in utility plant and equipment. These reinvested earnings increase the earnings base (rate base). Earnings grow when plant funded by reinvested earnings is put into service, and the utility is allowed to earn its authorized return on such additional rate base investment.

The internal growth methodology is tied to the percentage of earnings retained by the utility and not paid out as dividends. The earnings retention ratio is 1 minus the dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases. An increased earnings retention ratio will fuel stronger growth because the business funds more investments with retained earnings.

The payout ratios of the proxy group are shown in my Exhibit MPG-6. These dividend payout ratios and earnings retention ratios then can be used to develop a sustainable long-term earnings retention growth rate. A sustainable long-term earnings retention ratio will help gauge whether analysts' current three- to five-year growth rate projections can be sustained over an indefinite period of time.

The data used to estimate the long-term sustainable growth rate is based on EPE's current market-to-book ratio and on *Value Line*'s three- to five-year projections of earnings, dividends, earned returns on book equity, and stock issuances.

As shown in Exhibit MPG-7, the average sustainable growth rate using this internal growth rate model is 5.08% for the proxy group.

Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM GROWTH RATES?

A A DCF estimate based on these sustainable growth rates is developed in Exhibit MPG-8. As shown there, the sustainable growth DCF analysis produces proxy group average and median DCF results for the 13-week period of 8.56% and 8.52%, respectively.

III.D. Multi-Stage Growth DCF Model

Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?

A Yes. My first constant growth DCF is based on consensus analysts' growth rate projections so it is a reasonable reflection of rational investment expectations over the next three to five years. The limitation on this constant growth DCF model is that it cannot reflect a rational expectation that a period of high or low short-term growth can be followed by a change in growth to a rate that better reflects long-term sustainable growth. Therefore, I performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

Q WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?

A Analyst-projected growth rates over the next three to five years will change as utility earnings growth outlooks change. Utility companies go through cycles in making investments in their systems. When utility companies are making large investments, their rate base grows rapidly, which in turn accelerates earnings growth. Once a major construction cycle is completed or levels off, growth in the utility rate base slows and its earnings growth slows from an abnormally high three- to five-year rate to a lower sustainable growth rate.

As major construction cycles extend over longer periods of time, even with an accelerated construction program, the growth rate of the utility will slow simply because the pace of rate base growth will slow and because the utility has limited human and capital resources available to expand its construction program. Therefore, the three- to five-year growth rate projection should only be used as a long-term sustainable growth rate in concert with a reasonable, informed judgment as to whether it considers the current market environment, the industry, and whether the three- to five-year growth outlook is sustainable.

Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.

A The multi-stage growth DCF model reflects the possibility of non-constant growth for a company over time. The multi-stage growth DCF model reflects three growth periods: (1) a short-term growth period consisting of the first five years; (2) a transition period, consisting of the next five years (6 through 10); and (3) a long-term growth period starting in year 11 through perpetuity.

For the short-term growth period, I relied on the consensus analysts' growth projections I used above in my constant growth DCF model. For the transition period, the growth rates were reduced or increased by an equal factor reflecting the difference between the analysts' growth rates and the long-term sustainable growth rate. For the long-term growth period, I assumed each company's growth would converge to the maximum sustainable long-term growth rate, which is the projected long-term GDP growth rate.

Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?

A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the economy in which they sell services. Utilities' earnings/dividend growth are created by increased utility investment or rate base. Such investment, in turn, is driven by service area economic growth and demand for utility service. In other words, utilities invest in plant to meet sales demand growth. Sales growth, in turn, is tied to economic growth in their service areas.

The U.S. Department of Energy, Energy Information Administration ("EIA") has observed utility sales growth tracks U.S. GDP growth, albeit at a lower level, as shown in Exhibit MPG-9. Utility sales growth has lagged behind GDP growth for more than a decade. As a result, nominal GDP growth is a very conservative proxy for utility sales growth, rate base growth, and earnings growth. Therefore, the U.S. GDP nominal growth rate is a reasonable proxy for the highest sustainable long-term growth rate of a utility.

Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?

A Yes. This concept is supported in published analyst literature and academic work. Specifically, in "Fundamentals of Financial Management," a textbook published by Eugene Brigham and Joel F. Houston, the authors state:

> The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for

> mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation).[16]

The use of the economic growth rate is also supported by investment practitioners as outlined as follows:

> **Estimating Growth Rates**
>
> One of the advantages of a three-stage discounted cash flow model is that it fits with life cycle theories in regards to company growth. In these theories, companies are assumed to have a life cycle with varying growth characteristics. Typically, the potential for extraordinary growth in the near term eases over time and eventually growth slows to a more stable level.
>
> * * *
>
> Another approach to estimating long-term growth rates is to focus on estimating the overall economic growth rate. Again, this is the approach used in the *Ibbotson Cost of Capital Yearbook*. To obtain the economic growth rate, a forecast is made of the growth rate's component parts. Expected growth can be broken into two main parts: expected inflation and expected real growth. By analyzing these components separately, it is easier to see the factors that drive growth.[17]

Q ARE THERE ACTUAL INVESTMENT RESULTS THAT SUPPORT THE THEORY THAT THE GROWTH ON STOCK INVESTMENTS WILL NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?

A Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP to the geometric growth of the U.S. stock market. Duff & Phelps measures the historical geometric growth of the U.S. stock market over the period 1926-2020 to be approximately 6.2%.[18] During this same time period, the U.S. nominal compound annual growth of the U.S. GDP was approximately 6.0%.[19]

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[16] *"Fundamentals of Financial Management,"* Eugene F. Brigham & Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298, emphasis added.

[17] *Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook* at 51 and 52.

[18] *Duff & Phelps, 2021 SBBI Yearbook* at 6-17.

[19] U.S. Bureau of Economic Analysis, January 28, 2021.

As such, over the past 94 years, the geometric average growth of the U.S. nominal GDP has been slightly higher than, but comparable to, the geometric average growth of the U.S. stock market capital appreciation. This historical relationship indicates that the U.S. GDP growth outlook is a reasonable estimate of the long-term sustainable growth of U.S. stock investments.

Q WHAT IS THE GEOMETRIC AVERAGE AND WHY IS IT APPROPRIATE TO USE THIS MEASURE TO COMPARE GDP GROWTH TO CAPITAL APPRECIATION IN THE STOCK MARKET?

A The terms geometric average growth rate and compound annual growth rate are used interchangeably. The geometric annual growth rate is the calculated growth rate, or return, that measures the magnitude of growth from start to finish. The geometric average is best, and most often, used as a measurement of performance or growth over a long period of time.[20] Because I am comparing achieved growth in the stock market to achieved growth in U.S. GDP over a long period of time, the geometric average growth rate is most appropriate.

Q HOW DID YOU DETERMINE A LONG-TERM GROWTH RATE THAT REFLECTS THE CURRENT CONSENSUS MARKET PARTICIPANT OUTLOOK?

A I relied on the economic consensus of long-term GDP growth projections. *Blue Chip Financial Forecasts* publishes the consensus for GDP growth projections twice a year. These consensus GDP growth outlooks are the best available measure of the market's assessment of long-term GDP growth because the analysts' projections reflect all current outlooks for GDP. They are therefore likely the most influential on investors'

[20] *New Regulatory Finance*, Roger Morin, PhD, at 133-134.

expectations of future growth outlooks. The consensus projections published GDP growth rate outlook is 4.35% over the next 10 years.[21]

I propose to use the consensus for projected five- and ten-year average GDP growth rates of 4.35%, as published by *Blue Chip Financial Forecasts*, as an estimate of long-term sustainable growth. *Blue Chip Financial Forecasts* projections provide real GDP growth projections of approximately 2.15% and inflation of 2.15% over the five-year (2023-2027) and ten-year (2028-2032) projection periods, resulting in an average ten-year nominal annual GDP growth projection of 4.35%.[22] These GDP growth forecasts represent the most likely views of market participants because they are based on published economic consensus projections.

Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP GROWTH?

A Yes, and these alternative sources corroborate the consensus analysts' projections I relied on. Various commonly relied upon analysts' projections are shown in Table 4 below.

[21] *Blue Chip Financial Forecasts*, June 1, 2021, at 14.
[22] *Id.*

TABLE 4

GDP Forecasts

Source	Term	Real GDP	Inflation	Nominal GDP
Blue Chip Financial Forecasts	5-10 Yrs	2.15%	2.15%	4.35%
EIA - Annual Energy Outlook	28 Yrs	2.04%	2.34%	4.42%
Congressional Budget Office	9 Yrs	1.77%	2.12%	3.93%
Moody's Analytics	28 Yrs	2.07%	1.83%	3.94%
Social Security Administration	48 Yrs			4.08%
The Economist Intelligence Unit	25 Yrs	1.81%	2.01%	3.85%

The EIA in its *Annual Energy Outlook* projects real GDP out until 2050. In its 2020 Annual Report, the EIA projects real GDP through 2050 to be 2.04% and a long-term GDP price inflation projection of 2.34%. The EIA data supports a long-term nominal GDP growth outlook of 4.42%.[23]

Also, the Congressional Budget Office ("CBO") makes long-term economic projections. The CBO is projecting real GDP growth to be 1.77% during the next nine years, with a GDP price inflation outlook of 2.12%. The CBO's nine-year outlook for nominal GDP based on this projection is 3.93%.[24]

Moody's Analytics also makes long-term economic projections. In its recent over 25-year outlook to 2050, Moody's Analytics is projecting real GDP growth of 2.07% with GDP inflation of 1.83%.[25] Based on these projections, Moody's Analytics is projecting nominal GDP growth of 3.94% over the next 28 years.

[23] *Id.* and DOE/EIA Annual Energy Outlook 2020 With Projections to 2050, downloaded May 5 2021, Table Macroeconomic Indicators.

[24] *CBO: An Update to the Economic Outlook: 2021 to 2031*, February 2021.

[25] www.economy.com, *Moody's Analytics Forecast*, May 11, 2020.

The Social Security Administration ("SSA") makes long-term economic projections out to 2095. The SSA's nominal GDP projection, under its "intermediate cost" scenario of approximately 50 years, is 4.08%.[26]

The Economist Intelligence Unit, a division of The Economist and a third-party data provider to MI, makes a long-term economic projection out to 2050. The Economist Intelligence Unit is projecting real GDP growth of 1.81% with an inflation rate of 2.01% out to 2050. The real GDP growth projection is in line with the consensus. The long-term nominal GDP projection based on these outlooks is approximately 3.85%.[27]

The real GDP and nominal GDP growth projections made by these independent sources support my use of 4.35% as a reasonable estimate of market participants' expectations for long-term GDP growth.

Q WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN YOUR MULTI-STAGE GROWTH DCF ANALYSIS?

A I relied on the same 13-week average stock prices and the most recent quarterly dividend payment data discussed above. For stage one growth, I used the consensus analysts' growth rate projections discussed above in my constant growth DCF model. The first stage covers the first five years, consistent with the time horizon of the securities analysts' growth rate projections. The second stage, or transition stage, begins in year 6 and extends through year 10. The second stage growth transitions the growth rate from the first stage to the third stage using a straight linear trend. For the third stage, or long-term sustainable growth stage, starting in year 11, I used a

[26] www.ssa.gov, "2021 OASDI Trustees Report," Table VI.G4, August 31, 2021.
[27] *S&P Global Market Intelligence, Economist Intelligence Unit*, downloaded on January 28, 2021.

4.35% long-term sustainable growth rate based on the consensus economists' long-term projected nominal GDP growth rate.

Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?

A As shown in Exhibit MPG-10, the average and median DCF returns on equity for my proxy group using the 13-week average stock price are 8.06% and 8.12%, respectively.

III.E. DCF Summary Results

Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

A The results from my DCF analyses are summarized in Table 5 below:

TABLE 5

Summary of DCF Results

Description	Average	Median
Constant Growth DCF Model (Analysts' Growth)	9.07%	9.44%
Constant Growth DCF Model (Sustainable Growth)	8.56%	8.52%
Multi-Stage Growth DCF Model	8.06%	8.12%

DCF studies using analysts' growth rates and sustainable growth rates indicate a fair return on equity for EPE in this market within the range of 8.6% to 9.4%, with a midpoint of 9.0%.

III.F. Risk Premium Model

Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

A This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds

have more security of payment in bankruptcy proceedings than common equity and the coupon payments on bonds represent contractual obligations. In contrast, companies are not required to pay dividends or guarantee returns on common equity investments. Therefore, common equity securities are considered to be riskier than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I quantify the difference between regulatory commission-authorized returns on common equity and contemporary U.S. Treasury bonds. The difference between the authorized return on common equity and the Treasury bond yield is the risk premium. I estimated the risk premium on an annual basis for each year from 1986 through 2020. The authorized returns on equity were based on regulatory commission-authorized returns for utility companies. Authorized returns are typically based on expert witnesses' estimates of the investor-required return at the time of the proceeding.

The second equity risk premium estimate is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields by Moody's. I selected the period 1986 through 2020 because public utility stocks consistently traded at a premium to book value during that period. This is illustrated in Exhibit MPG-11, which shows the market-to-book ratio since 1986 for the electric utility industry was consistently above a multiple of 1.0x. Over this period, an analyst can infer that authorized returns on equity were sufficient to support market prices that at least exceeded book value. This is an indication that commission authorized returns on common equity supported a utility's ability to issue additional common stock without diluting existing shares. It further demonstrates utilities were able to access equity markets without a detrimental impact on current shareholders.

Based on this analysis, as shown in Exhibit MPG-12, the average indicated equity risk premium over U.S. Treasury bond yields has been 5.69%. Since the risk

premium can vary depending upon market conditions and changing investor risk perceptions, I believe using an estimated range of risk premiums provides the best method to measure the current return on common equity for a risk premium methodology.

I incorporated five-year and ten-year rolling average risk premiums over the study period to gauge the variability over time of risk premiums. These rolling average risk premiums mitigate the impact of anomalous market conditions and skewed risk premiums over an entire business cycle. As shown on my Exhibit MPG-12, the five-year rolling average risk premium over Treasury bonds ranged from 4.25% to 7.08%, with an average of 5.64%. The ten-year rolling average risk premium ranged from 4.38% to 6.90%, with an average of 5.64%.

As shown on my Exhibit MPG-13, the average indicated equity risk premium over contemporary "A" rated Moody's utility bond yields was 4.34%. The five-year rolling average risk premiums ranged from 2.88% to 5.89%, with an average of 4.29%. The ten-year rolling average risk premiums ranged from 3.20% to 5.73%., with an average of 4.27%.

Q DO YOU BELIEVE THAT THE TIME PERIOD USED TO DERIVE THESE EQUITY RISK PREMIUM ESTIMATES IS APPROPRIATE TO FORM ACCURATE CONCLUSIONS ABOUT CONTEMPORARY MARKET CONDITIONS?

A Yes. Contemporary market conditions can change during the period that rates determined in this proceeding will be in effect. A relatively long period of time where stock valuations reflect premiums to book value indicates that the authorized returns on equity and the corresponding equity risk premiums were supportive of investors' return expectations and provided utilities access to the equity markets under reasonable terms and conditions. Further, this time period is long enough to smooth

abnormal market movement that might distort equity risk premiums. While market conditions and risk premiums do vary over time, this historical time period is a reasonable period to estimate contemporary risk premiums.

Alternatively, some studies, such as Duff & Phelps, have recommended that the use of "actual achieved investment return data" in a risk premium study should be based on long historical time periods. The studies find that achieved returns over short time periods may not reflect investors' expected returns due to unexpected and abnormal stock price performance. Short-term, abnormal actual returns would be smoothed over time and the achieved actual investment returns over long time periods would approximate investors' expected returns. Therefore, it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns.

My risk premium study is based on data that inherently relied on investor expectations, not actual investment returns, and, thus, need not encompass a very long historical time period.

Q WHAT DOES CURRENT OBSERVABLE MARKET DATA SUGGEST ABOUT INVESTOR PERCEPTIONS OF UTILITY INVESTMENTS?

A The equity risk premium should reflect the relative market perception of risk today in the utility industry. I have gauged investor perceptions in utility risk today in Exhibit MPG-14, where I show the yield spread between utility bonds and Treasury bonds over the last 41 years. As shown in this exhibit, the average utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.48% and 1.91%, respectively. The utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utilities for 2019 were 1.18% and 1.61%, respectively. In 2020, the "A" and "Baa" utility spreads are 1.49% and 1.87%, respectively. More recently in the first

half of 2021, the "A" and "Baa" utility spreads are 1.04% and 1.30%, respectively. Both the current average "A" rated and "Baa" rated utility bond yield spreads over Treasury bond yields are lower or comparable to the respective 41-year average spreads.

The current 13-week average "A" rated utility bond yield of 2.98% when compared to the current Treasury bond yield of 1.96%, as shown in Exhibit MPG-15, implies a yield spread of 1.02%. This current utility bond yield spread is significantly lower than the 41-year average spread for "A" rated utility bonds of 1.48%. The current spread for the "Baa" rated utility bond yield of 1.26% is also lower than the 41-year average spread of 1.91%.

Q IS THERE OBSERVABLE MARKET EVIDENCE TO HELP GAUGE MARKET RISK PREMIUMS?

A Yes. Market data illustrates how the market is pricing investment risk, and gauging the current demands for returns based on securities of varying levels of investment risk. This market evidence includes bond yield spreads for different bond return ratings as implied by the yield spreads for Treasury, corporate and utility bonds. These spreads provide an indication of the market's return requirement for securities of different levels of investment risk and required risk premiums.

Table 6 below summarizes the utility and corporate bond spreads relative to Treasury bond yields.

TABLE 6

Comparison of Yield Spreads Over Treasury Bond Yields

	Utility		Corporate	
Description	**A**	**Baa**	**Aaa**	**Baa**
Average Historical Spread	1.48%	1.91%	0.84%	1.91%
2019 Spread	1.18%	1.61%	0.81%	1.79%
2020 Spread	1.49%	1.87%	0.96%	2.10%
2021 Spread*	1.04%	1.30%	0.64%	1.34%

Source: Moody's Bond Yields
*2021 data through August 2021

As shown above in Table 6, the average historical utility bond yield spread is greater than the current yield spread based on 2019-2021 data. This is an indication that the market is placing a higher value on utility securities currently, and indicating a preference for lower-risk investments.

This phenomenon is also evident in utility bond spreads relative to general corporate bonds. An Aaa-rated corporate bond 41-year average spread is 0.84%, which is lower than the 2020 spread of 0.96%. The spread during the first eight months of 2021 of 0.64% indicates a movement back to a more normal risk premium.

Q WHAT IS YOUR RECOMMENDED RETURN FOR EPE BASED ON YOUR RISK PREMIUM STUDY?

A I am recommending more weight be given to the high-end risk premium estimates than the low-end. As outlined above, I believe the current market is reflecting high premiums for investing in securities of greater levels of investment risk. Based on this observation, I propose to be conservative in applying a risk premium analysis. For

these reasons, I will recommend my high-end equity risk premium in forming a return on equity in this proceeding.

For Treasury bond yields, I propose a risk premium of 6.36%. I relied on the risk premium at approximately the 75th percentile of the range, or 6.36%, to recognize clear, observable evidence that risk premiums are at abnormally high levels right now, but to also recognize that the projected Treasury bond yield is considerably higher than current observable bond yields. Using a Treasury bond risk premium of 6.36% and a projected Treasury bond yield of 2.60%[28] produces an indicated equity risk premium of 8.96% (6.36% + 2.60%).

A risk premium based on utility bond yields was also based on a high-end estimate. However, because current observable yields are employed in this risk premium study, In regard to my utility risk premium, I am relying on the high-end estimate in the study of 5.89% on my Exhibit MPG-13 and the current 13-week Baa utility yield of 3.22% as developed on my Exhibit MPG-15. Hence, a risk premium based on utility bond yields indicates a return on equity of 9.11% (5.89% + 3.22%).

Based on this methodology, my Treasury bond risk premium and my utility bond risk premium indicate a return in the range of 8.96% to 9.11%, with an approximate midpoint of 9.0%.

III.G. Capital Asset Pricing Model ("CAPM")

Q PLEASE DESCRIBE THE CAPM.

A The CAPM method of analysis is based upon the theory that the market-required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with

[28] *Blue Chip Financial Forecasts*, September 1, 2021 at 2.

the specific security. This relationship between risk and return can be expressed mathematically as follows:

$R_i = R_f + B_i \times (R_m - R_f)$ where:

R_i = Required return for stock i
R_f = Risk-free rate
R_m = Expected return for the market portfolio
B_i = Beta - Measure of the risk for stock

The stock-specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, stock-specific risks can be eliminated by balancing the portfolio with securities that react in the opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix, and production limitations).

Risks that cannot be eliminated when held in a diversified portfolio are non-diversifiable risks. Non-diversifiable risks are related to the market and referred to as systematic risks. Risks that can be eliminated by diversification are non-systematic risks. In a broad sense, systematic risks are market risks and non-systematic risks are business risks. The CAPM theory suggests the market will not compensate investors for assuming risks that can be diversified away. Therefore, the only risk investors will be compensated for are systematic, or non-diversifiable, risks. The beta is a measure of the systematic, or non-diversifiable risks.

Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.

A The CAPM requires an estimate of the market risk-free rate, EPE's beta, and the market risk premium.

Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?

A As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield is 2.60%.[29] The current 30-year Treasury bond yield is 1.96%, as shown in Exhibit MPG-15.

Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-FREE RATE?

A Treasury securities are backed by the full faith and credit of the United States government. Therefore, long-term Treasury bonds are considered to have negligible credit risk. Also, long-term Treasury bonds have an investment horizon similar to that of common stock. As a result, investor-anticipated long-run inflation expectations are reflected in both common stock required returns and long-term bond yields. Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a long-term bond yield is a reasonable estimate of the nominal risk-free rate included in common stock returns.

Treasury bond yields, however, do include risk premiums related to unanticipated future inflation and interest rates. In this regard, a Treasury bond yield is not a risk-free rate. Risk premiums related to unanticipated inflation and interest rates reflect systematic market risks. Consequently, for companies with betas less than 1.0, using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis can produce an overstated estimate of the CAPM return.

[29] *Id.*

Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?

A As shown on my Exhibit MPG-16, page 1, the average beta of my proxy group is 0.89. This means that my proxy group is less risky than the market as a whole. I also reviewed the long-term trend of *Value Line* betas reported for the proxy group companies. As shown on Exhibit MPG-16, page 2, the proxy group's betas have generally ranged between 0.65 and 0.75 prior to the elevated betas published after the COVID-19 pandemic commenced. The proxy group average normalized historical beta is 0.71. Thus, the current beta estimates of around 0.89 are well above the normalized historical beta.

Q IS IT REASONABLE TO ESTIMATE A CAPM RETURN ON A REGULATED UTILITY BASED ON BETA ESTIMATES THAT ARE CLEARLY OUTLIERS FOR HISTORICAL AVERAGE BETAS?

A No. Utility company betas have increased from around 0.65 to 0.75 up to a current level in excess of 0.90 over the last two years. This increase in betas suggests that utility companies' investment risks are increasing relative to the overall general marketplace. The outlook of increasing utility investment risk is simply not supported by a review of other risk measures for utilities including: (a) current robust valuation metrics of utilities as described above; (b) risk spreads of utility stock yields relative to bond yields; (c) sustained investment grade bond ratings for utility companies, and (d) access to significant amount of capital. Again as shown on Exhibit MPG-2, the historically strong valuation metrics of electric utilities are particularly robust, indicating the market is paying a premium for utility stocks. The fact that utility stocks are trading at a premium is inconsistent with the notion that the market perceives the utility's industry's investment risk to be increasing. It also shows that the market is not demanding a higher rate of return to invest in these securities.

For these reasons, in performing my CAPM I used a more normalized beta and market risk premium factors in order to derive a CAPM return estimate in this proceeding.

Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?

A I derived two market risk premium estimates: a forward-looking estimate and one based on a long-term historical average.

The forward-looking estimate was derived by estimating the expected return on the market (as represented by the S&P 500) and subtracting the risk-free rate from this estimate. I estimated the expected return on the S&P 500 by adding an expected inflation rate to the long-term historical arithmetic average real return on the market. The real return on the market represents the achieved return above the rate of inflation.

Duff & Phelps' *2021 SBBI Yearbook* estimates the historical arithmetic average real market return over the period 1926 to 2020 to be 9.1%.[30] A current consensus for projected inflation, as measured by the Consumer Price Index, is 2.2%.[31] Using these estimates, the expected market return is 11.50%.[32] The market risk premium then is the difference between the 11.50% expected market return and my 2.60% risk-free rate estimate, or 8.90%, which I referred to as a normalized market risk premium.

I also developed a current market risk premium based on the difference between the expected return on the market of 11.50% as described above and the current 30-year Treasury yield of 1.96% as shown on my Exhibit MPG-15, which produced a current market risk premium of 9.54%.

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[30] Duff & Phelps, *2021 SBBI Yearbook at 6-18.*
[31] *Blue Chip Financial Forecasts*, September 1, 2021 at 2.
[32] { (1 + 0.091) * (1 + 0.022) – 1 } * 100.

A historical estimate of the market risk premium was also calculated by using data provided by Duff & Phelps in its *2021 SBBI Yearbook*. Over the period 1926 through 2020, the Duff & Phelps study estimated that the arithmetic average of the achieved total return on the S&P 500 was 12.2%[33] and the total return on long-term Treasury bonds was 6.1%.[34] The indicated market risk premium is 6.1% (12.2% - 6.1% = 6.1%).

The long-term government bond yield of 6.1% occurred during a period of inflation of approximately 2.9%, thus implying a real return on long-term government bonds of 3.2%.

Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO THAT ESTIMATED BY DUFF & PHELPS?

A Duff & Phelps makes several estimates of a forward-looking market risk premium based on actual achieved data from the historical period of 1926 through 2020 as well as normalized data. Using this data, Duff & Phelps estimates a market risk premium derived from the total return on the securities that comprise the S&P 500, less the income return on Treasury bonds. The total return includes capital appreciation, dividend or coupon reinvestment returns, and annual yields received from coupons and/or dividend payments. The income return, in contrast, only reflects the income return received from dividend payments or coupon yields.

Duff & Phelps' range is based on several methodologies. First, Duff & Phelps estimates a market risk premium of 7.25% based on the difference between the total

[33] *Duff & Phelps 2021 SBBI Yearbook* at 6-17.
[34] *Id.*

market return on common stocks (S&P 500) less the income return on 20-year Treasury bond investments over the 1926-2020 period.[35]

Second, Duff & Phelps used the Ibbotson & Chen supply-side model which produced a market risk premium estimate of 6.0%.[36] Duff & Phelps explains that the historical market risk premium based on the S&P 500 was influenced by an abnormal expansion of P/E ratios relative to earnings and dividend growth during the period, primarily over the last 30 years. Duff & Phelps believes this abnormal P/E expansion is not sustainable. In order to control for the volatility of extraordinary events and their impacts on P/E ratios, Duff & Phelps takes into consideration the three-year average P/E ratio as the current P/E ratio.[37]

Finally, Duff & Phelps develops its own recommended equity, or market risk premium, by employing an analysis that takes into consideration a wide range of economic information, multiple risk premium estimation methodologies, and the current state of the economy by observing measures such as the level of stock indices and corporate spreads as indicators of perceived risk. Based on this methodology, and utilizing a "normalized" risk-free rate of 2.5%, Duff & Phelps concludes the current expected, or forward-looking, market risk premium is 5.5%, implying an expected return on the market of 8.0%.[38]

Importantly, Duff & Phelps' market risk premiums are measured over a 20-year Treasury bond. Because I am relying on a projected 30-year Treasury bond yield, the results of my CAPM analysis should be considered conservative estimates for the cost of equity.

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[35] *Id*. at 10-21.
[36] *Id.* at 10-29.
[37] *Id.*
[38] *Duff & Phelps*: "Technical Update: Duff & Phelps Recommended U.S. Equity Risk Premium Decreased from 6.0% to 5.5%," December 10, 2020.

Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

A The market data outlined above shows that current observable risk-free rates are around 1.96%, but projected risk-free rates increase to around 2.60%. Similarly, current observable beta estimates are around 0.89 but forward-looking more normalized beta estimates have consistently been about 0.71. I will use all these CAPM data in deriving a reasonable estimate of the current market cost of equity.

As shown on my Exhibit MPG-17, using a current market risk-free rate of 1.96%, a projected market return of 11.50%, produces a market risk premium of 9.54%, combined with the current beta of 0.89 indicates a CAPM return estimate of 10.43%. This CAPM is overstated due to the abnormally high beta estimate.

Using a market return of 11.50%, with a projected risk-free rate of 2.60%, produces a market risk premium of 8.90%. This market risk premium and risk-free rate with a normalized utility beta of 0.71, indicates a CAPM return of about 8.96%.

The midpoint of this CAPM return range is approximately 9.7% (midpoint of 10.43% and 8.96%).

III.H. Return on Equity Summary

Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND FOR EPE?

A Based on my analyses, I recommend EPE's current market cost of equity be in the range of 9.00% to 9.40%, with a point estimate of 9.20%.

TABLE 7

Return on Common Equity Summary

Description	Results
DCF	9.00%
Risk Premium	9.00%
CAPM	9.70%

My recommended return on common equity of 9.20% falls at the midpoint of the range of 9.00% to 9.40%. The low-end of my range is based on my DCF and Risk Premium analyses, and the high-end is based on the approximate average of my risk premium and CAPM returns.

My return on equity estimates reflect observable market evidence, the impact of Federal Reserve policies on current and expected long-term capital market costs, an assessment of the current risk premium built into current market securities, and a general assessment of the current investment risk characteristics of the electric utility industry and the market's demand for utility securities.

IV. FINANCIAL INTEGRITY

Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN INVESTMENT GRADE BOND RATING FOR EPE?

A Yes. I have reached this conclusion by comparing the key credit rating financial ratios for EPE at my proposed return on equity and embedded debt cost, and the Company's proposed capital structure to S&P's benchmark financial ratios using S&P's new credit metric ranges.

Q PLEASE DESCRIBE THE S&P FINANCIAL RATIO CREDIT METRIC METHODOLOGY.

A S&P publishes a matrix of financial ratios corresponding to its assessment of the business risk of utility companies and related bond ratings. On May 27, 2009, S&P expanded its matrix criteria by including additional business and financial risk categories.[39]

Based on S&P's most recent credit matrix, the business risk profile categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most utilities have a business risk profile of "Excellent" or "Strong."

The financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a financial risk profile of "Aggressive."

Q CAN S&P'S CREDIT METRIC METHODOLOGY BE USED TO ASSESS THE REASONABLENESS OF YOUR RECOMMENDED RATE OF RETURN FOR EPE, IF IT DOES NOT HAVE AN S&P BOND RATING?

A Because EPE does not currently have a business risk profile score and financial risk profile score from S&P, these metrics cannot be applied directly to EPE. However, I would note that EPE is unique from most electric utility companies in that it no longer has a credit rating from S&P. Indeed, all the electric utility industry companies followed by *Value Line*, except for MGE Energy, have S&P bond ratings.

In order to assess whether or not my recommended rate of return supports both EPE's financial strength and provides fair compensation, I am applying the S&P credit

[39] S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

metrics with my rate of return for EPE based on the business and financial score makeup of my proxy group, EPE's S&P's financial and business score ratings prior to the elimination of these ratings, and a normal distribution of S&P's financial and business score ratings for the electric utility industry.

Based on a credit report issued May 21, 2018 for EPE, prior to its acquisition by Sun Jupiter Holdings LLC, S&P had business and financial risk profile scores for EPE of "Strong" and "Significant," respectively.[40] As shown on my Exhibit MPG-18 and in Figure 5 below, the electric utility industry has average business and financial score ratings from S&P of "Excellent" and "Significant," respectively.

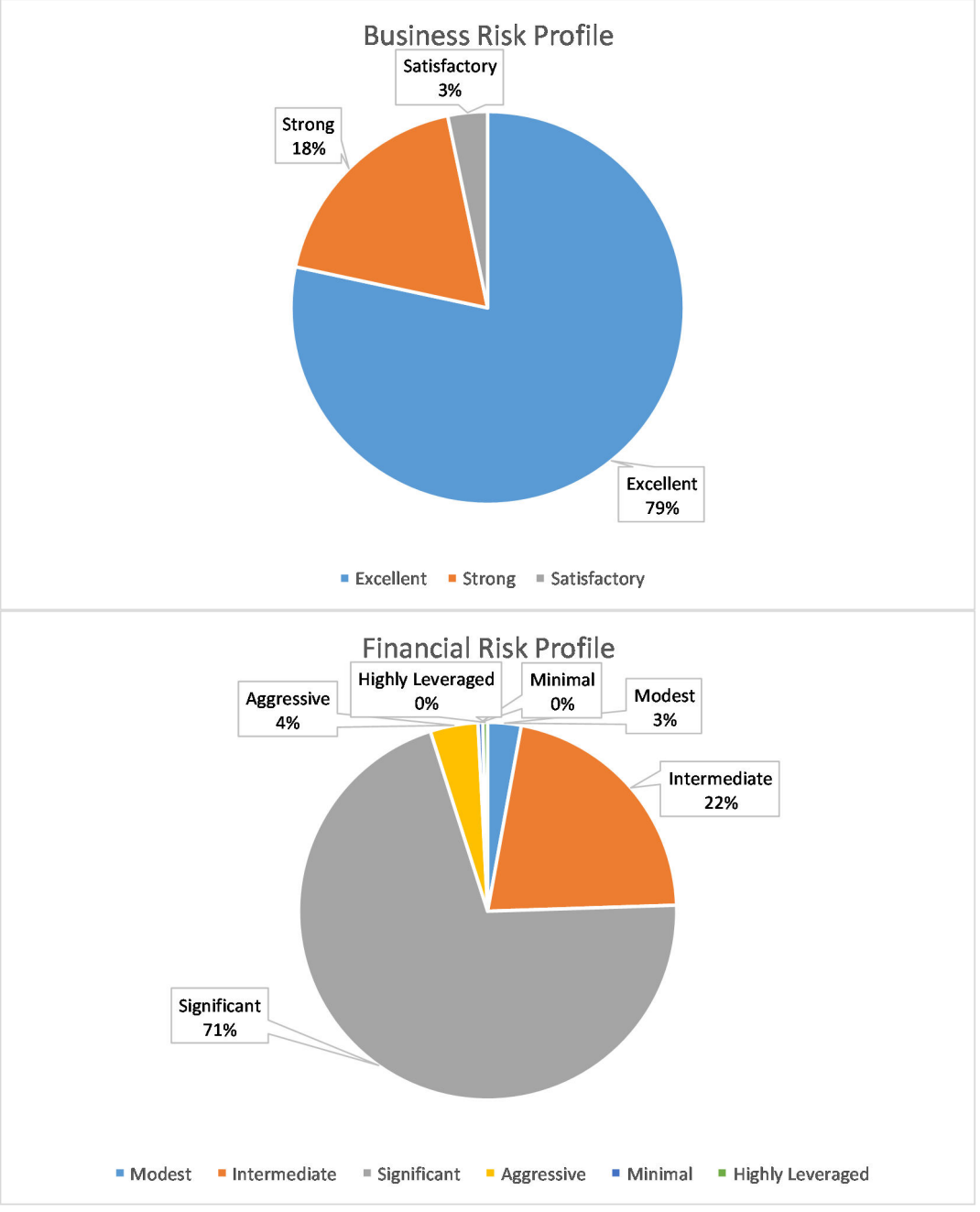
EPE's business risk is still largely described by the regulatory mechanisms in its service territory in New Mexico and in Texas. Further, as noted above, its capital structure and related cash flow coverage credit metrics have largely reflected strong regulatory performance, and adequate coverage to supports its bond rating. Hence, I propose to use EPE's previous S&P business and financial risk credit scores as a proxy for its current business and financial risk assessment.

Using EPE's S&P business score reasonably aligns with the electric utility industry average, which as shown in Figure 5 below, suggests that EPE's "Strong" business profile score is somewhat weaker than the industry norm, but its "Significant" financial profile score aligns with the majority of regulated utility companies. For these reasons, I believe using S&P's previous business and profile score rankings for EPE is still reasonable, and will produce a reasonable assessment of whether or not my recommended rate of return will support its investment grade bond rating and financial integrity.

[40] *S&P RatingsDirect*: "El Paso Electric Co.," May 21, 2018.

Figure 5

S&P Utility Industry Credit Metrics



Source: Exhibit MPG-18.

I propose to use S&P's bond rating as opposed to Moody's and Fitch, because S&P's methodology more closely aligns with the cost of service constructs within a rate

case proceeding. Also, S&P publishes a matrix which clearly delineates credit rating metrics with an assigned credit rating. For these reasons, I propose to use S&P's credit metric analysis to demonstrate the reasonableness of my overall rate of return in supporting EPE's credit rating and in turn access to capital.

Q PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN ITS CREDIT RATING REVIEW.

A S&P evaluates a utility's credit rating based on an assessment of its financial and business risks. A combination of financial and business risks equates to the overall assessment of EPE's total credit risk exposure. On November 19, 2013, S&P updated its methodology. In its update, S&P published a matrix of financial ratios that defines the level of financial risk as a function of the level of business risk.

S&P publishes ranges for primary financial ratios that it uses as guidance in its credit review for utility companies. The two core financial ratio benchmarks it relies on in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to Total Debt.[41]

Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?

A I calculated each of S&P's financial ratios based on EPE's cost of service for its regulated utility operations in its Texas service territory. While S&P would normally look at total consolidated EPE financial ratios in its credit review process, my investigation in this proceeding is not the same as S&P's. I am attempting to judge the

[41] *Standard & Poor's RatingsDirect*: "Criteria: Corporate Methodology," November 19, 2013.

reasonableness of my proposed cost of capital for rate-setting in EPE's Texas regulated utility operations. Hence, I am attempting to determine whether my proposed rate of return will in turn support cash flow metrics, balance sheet strength, and earnings that will support an investment grade bond rating and EPE's financial integrity.

Q DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT ("OBS") DEBT EQUIVALENTS?

A No. The Company indicated that it is not aware of it having any OBS by any of its credit rating agencies.[42]

Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT RELATES TO EPE'S REGULATED OPERATIONS.

A The S&P financial metric calculations for EPE at a 9.20% return are developed on Exhibit MPG-19, page 1. The credit metrics produced below, with EPE's financial risk profile from S&P of "Significant" and business risk profile of "Strong," will be used to assess the strength of the credit metrics based on EPE's retail operations in the state of Texas.

The adjusted debt ratio for credit metric purposes at the Company's proposed capital structure is 51.8%, which is lower than the adjusted industry median debt ratio for BBB rated utilities of 54.2%, as shown on page 4 of Exhibit MPG-19. A lower debt ratio indicates, all else equal, less financial risk.

Based on an equity return of 9.20% and the Company's proposed common equity ratio of 51.0%, EPE will be provided an opportunity to produce a Debt to

[42] EPE's response to TIEC 1-14.

Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") ratio of 4.1x. This is within S&P's "Significant" guideline range of 3.5x to 4.5x.[43]

EPE's retail utility operations FFO to total debt coverage at a 9.20% equity return and 51.0% equity ratio is 17%, which is within S&P's "Significant" metric guideline range of 13% to 23%. This ratio is again within the FFO/total debt range that will support EPE's credit rating.

I conclude that EPE's core credit metrics ratios based on the Company's proposed capital structure and my return on equity will support its investment grade credit rating of BBB, or stronger.

Q DOES THIS FINANCIAL INTEGRITY ASSESSMENT SUPPORT YOUR RECOMMENDED OVERALL RATE OF RETURN FOR EPE?

A Yes. As noted above, I believe my return on equity and the Company's proposed capital structure represent fair compensation in today's very low capital market costs, and as outlined above, my overall rate of return will provide EPE an opportunity to earn credit metrics that will support its bond rating.

V. RESPONSE TO EPE WITNESS MS. NELSON

Q WHAT RETURN ON COMMON EQUITY IS EPE PROPOSING FOR THIS PROCEEDING?

A Ms. Nelson recommends a return on equity in the range of 9.75% to 10.75% based on her market-based model results. She concludes that a return on equity of 10.30% is reasonable. Her recommendation reflects her assessment of the current capital market

[43] *Standard & Poor's RatingsDirect®*: "Criteria: Corporate Methodology," November 19, 2013.

conditions and EPE's business risks relative to the companies included in her proxy group.[44]

Q ARE MS. NELSON'S RETURN ON EQUITY ESTIMATES REASONABLE?

A No. Ms. Nelson's estimated return on equity is overstated and should be rejected. Ms. Nelson's analyses produce excessive results for various reasons, including the following:

1. Her constant growth DCF results are based on unsustainably high growth rates;
2. Her application of the quarterly DCF overstates the fair return on equity;
3. Her CAPM is based on inflated market risk premiums;
4. Her Empirical CAPM ("ECAPM") is based on a flawed methodology;
5. Her Bond Yield Plus Risk Premium studies are based on inflated utility equity risk premiums;
6. Both her CAPM and Risk Premium studies are based on long-term projected interest rates that are highly uncertain, and do not reflect the time period where rates set in this proceeding will be in effect.

Q PLEASE COMPARE YOUR RECOMMENDED RETURN ON EQUITY WITH MS. NELSON'S RETURN ON EQUITY ESTIMATES.

A Ms. Nelson's return on equity estimates are summarized in Table 8 below. In the "Adjusted" Column 2, I show the results with prudent and sound adjustments to correct the flaws referenced above. With such adjustments to Ms. Nelson's proxy group's DCF, CAPM, ECAPM and Risk Premium return estimates, Ms. Nelson's studies show that my 9.20% recommended return on equity for EPE is more reasonable and consistent with the current capital market environment.

[44] Nelson Direct Testimony at 2.

TABLE 8

Nelson's Adjusted Return on Equity Estimates

Description	Mean / Median[1] (1)	Adjusted (2)
Constant Growth DCF		
30-Day Average	9.43%	8.42%
90-Day Average	9.43%	8.47%
180-Day Average	9.52%	8.51%
Quarterly Growth DCF		
30-Day Average	9.57%	8.42%
90-Day Average	9.62%	8.47%
180-Day Average	9.69%	8.51%
CAPM		
Current 30-Yr Treasury (2.31%)	12.71% / 12.42%	10.34% / 10.12%
Near-Term Projected 30-Yr Treasury (2.88%)[2]	12.78% / 12.51%	10.39% / 10.18%
Alternative CAPM (historical beta)		8.83% / 8.94%
ECAPM		
Current 30-Yr Treasury (2.31%)	13.08% / 12.87%	Reject
Near-Term Projected 30-Yr Treasury (2.88%)[2]	13.14% / 12.93%	Reject
Risk Premium		
Current 30-Yr Treasury (2.31%)	9.81%	8.67%
Near-Term Projected 30-Yr Treasury (2.88%)[2]	9.81%	9.04%
Recommended ROE	10.30%	9.20%

Sources: [1]Nelson Direct Testimony at 3-4 and Exhibit JEN-1 thought JEN-8.

[2]The near-term yield reflects the six quarters ending Q3, 2022 and the long-term yields for the 5-10 year periods ending 2026 and 2031.

As shown in Table 8 above, corrections and improvements to the accuracy of Ms. Nelson's return on equity estimates support a return on equity for EPE of no higher than 9.20% in the current market.

While my adjustments are presented in Adjusted Column 2 of Table 8 above, a description of the bases for my adjustments to Ms. Nelson's return on equity estimates is presented below.

V.A. Reliability of DCF and CAPM Return Estimates

Q DOES MS. NELSON COMMENT ON THE RELIABILITY OF MARKET-BASED MODELS TO MEASURE A FAIR RETURN ON EQUITY FOR EPE?

A Yes. Ms. Nelson opines that the traditional DCF analyses are not producing reasonable results at this time due to the current capital market conditions and should be considered with caution. She goes on to state that current market conditions reflect a low interest rate environment, which affects security dividend yields and valuations relative to historical levels and concludes that the DCF results should be given less weight than other models in determining the fair return on equity for EPE.[45] She also opines that interest rates are expected to increase.[46]

Q HAS MS. NELSON IDENTIFIED ANYTHING DIFFERENT IN THIS CASE TO DISTINGUISH THE PROJECTIONS THAT HAVE BEEN OFFERED OVER THE LAST FIVE TO TEN YEARS, BUT HAVE YET TO PAN OUT?

A No. As explained in more detail later, economists have consistently been projecting increases in interest rates relative to current observable interest rates over the last several years. However, those projections for increased interest rates have turned out to be inaccurate. Instead, interest rates have remained relatively stable and at low levels for approximately the last five to ten years. Also, I show that projections for interest rates over the next five to ten years have been moderated by independent consensus economists. This is clear evidence that today's market is embracing the sustainability of relatively low capital market costs in the current market relative to what independent economists have projected in prior periods. A comparison of the components of the DCF return for utilities generally to other income return investment

[45] *Id.* at 6-10.
[46] *Id.* at 25-26.

options and growth investment options shows that the results of DCF models are producing reliable and accurate estimates of the current market cost for utility companies.

Q PLEASE EXPLAIN WHY YOU BELIEVE THE DCF MODEL IS PRODUCING RELIABLE RESULTS FOR UTILITY COMPANIES WHEN THE DCF RETURN COMPONENT IS COMPARED TO ALTERNATIVE INVESTMENTS.

A The DCF model is producing an economically logical estimate of the current market cost of equity and a return that is comparable with observable returns in alternative investments of comparable risk. The DCF model sums the observable dividend yield on utility stocks and then adds to that an estimate of expected growth. These two components yield DCF returns that can be compared to alternative investments to demonstrate their reasonableness.

The current dividend yield of electric utility stock (3.59%) is higher but comparable to the yield on "A" rated utility bonds (3.14%) as shown my Exhibit MPG-2, page 4. Because utility stock dividends can grow over time, and utility bond yield coupons are fixed, historically utility stock dividend yields are lower than observable utility bond yields. The current yield spread of around -45 basis points is negligible, as described later in my testimony. This relatively narrow spread between A-rated utility bonds and utility stock dividend yields is an indication that the yield component, or income component, on a utility stock is competitive with alternative income returns such as A-rated utility bond yields. This is an indication that the yield component of a DCF return is comparable with alternative investments.

Specifically, as shown on Exhibit MPG-2, page 4, the historical average yield spread between A-rated utility bonds and electric utility stock dividends has been 0.79%, which is much higher than the current yield spread of -0.45% for electric utilities.

This indicates the DCF income return on utility stocks (dividend yield) is competitive with the income return available on utility bond investments.

The growth component of the DCF return relates to earnings and stock growth over time. The growth outlook for utility stocks is not depressed generally, but rather provides a robust outlook for dividends and stock price growth. The DCF return is not understated due to the DCF growth rate component.

Exhibit MPG-2, page 5 also shows the annual growth in dividends for utilities over the last 16 years has been approximately 4.17%. A forward growth rate of 5.58%, as shown in Exhibit MPG-4, is higher than the realized historical growth. Also, utility earnings growth is expected to be considerably higher than the growth of the U.S. GDP, which generally is regarded as the maximum sustainable growth of the market in general. Going forward, long-term sustainable growth for equity investments is around 4.35%, as described above. Based on these factors, the growth rate component of a regulated utility DCF return is quite robust and produces a highly competitive DCF return estimate.

For these reasons, both dividend yield and growth components of a utility DCF indicate an economically logical return estimate that is competitive with comparably risky alternative investments.

V.B. Nelson's Constant Growth DCF Models

Q PLEASE DESCRIBE MS. NELSON'S CONSTANT GROWTH DCF RETURN ESTIMATES.

A Ms. Nelson's constant growth DCF returns are developed on her Exhibit JEN-2. Ms. Nelson's constant growth DCF models are based on consensus growth rates published by *Yahoo! Finance* and *Zacks* and individual growth rate projections made by *Value Line*.

She relied on dividend yield calculations based on average stock prices over three different time periods: 30-day, 90-day, and 180-day ending March 31, 2021 – all reflecting a half year of dividend growth adjustments.

Q DO YOU HAVE ANY ISSUES WITH MS. NELSON'S CONSTANT GROWTH DCF RESULTS?

A Yes. As discussed in regard to my own DCF study, the current consensus analysts' growth rates are higher than the long-term sustainable growth rate of 4.35%. Ms. Nelson's constant growth DCF model is based on an average proxy group growth rate of 5.75%, which is significantly above the long-term sustainable growth rate. Therefore, contrary to Ms. Nelson's conclusions, her DCF results should be considered as a high-end DCF return for EPE.

Q DO YOU HAVE ANY CONCERNS WITH MS. NELSON'S QUARTERLY DCF RETURN ESTIMATES?

A Yes. Ms. Nelson included quarterly compounding in her DCF return estimates to replicate reinvestment of quarterly dividends over a year, but that can overstate a fair return on equity for setting rates. This occurs because the return available to investors from reinvesting dividends is not a cost to the utility. Therefore, it should not be reflected as a cost of capital in setting utility rates. By including the quarterly compounding adjustment in the authorized returns used to set rates, investors are provided an opportunity to earn that quarterly compounding return twice: first, by setting rates to increase the allowed return on equity to include a dividend reinvestment return despite the absence of actual reinvestment of the dividend in the utility; and second, investors are able to earn the reinvestment dividend return again when they receive dividends from the utilities and actually reinvest in alternative investments.

As such, including the quarterly compounding return in the DCF return estimates overstates a fair return on equity for setting rates because it overstates the utility's cost of capital. Removing the quarterly compounding from Ms. Nelson's DCF return estimates causes that model to yield the same results as her constant growth DCF model, which again should be considered as a high-end DCF return for EPE.

Q IS THERE A WAY TO CORRECT MS. NELSON'S CONSTANT GROWTH DCF RESULTS TO REFLECT A REASONABLE GROWTH RATE EXPECTATION?

A Yes. In Column 2 in Table 8 above and my Exhibit MPG-20, I present the results of a multi-stage DCF model to reflect a reasonable long-term sustainable growth rate as discussed in regard to my own studies. Ms. Nelson's constant growth DCF mean adjusted results generally support a return on equity no higher than 8.5%.

V.C. Nelson's CAPM Studies

Q PLEASE DESCRIBE MS. NELSON'S CAPM ANALYSIS.

A As indicated above, the CAPM analysis is based upon the theory that the market required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. The risk premium associated with the specific security is expressed mathematically as:

Bi x (Rm - Rf) where:

Bi = Beta - Measure of the risk for stock
Rm = Expected return for the market portfolio
Rf = Risk-free rate

Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MS. NELSON'S CAPM STUDY.

A I have two primary issues with Ms. Nelson's CAPM study. First, I believe the market risk premiums she used in all her CAPM studies are overstated because they do not

reflect a reasonable estimate of the expected return on the market. Second, Ms. Nelson relies on a projected risk-free rate based on the 30-Year Treasury yield for the six quarter period ending Q3, 2022, and the projected yields for the periods of 2022 to 2026 and 2027 to 2031, or five to ten years in the future. These long-term projected Treasury bond yields are expected to be in effect long after the rates determined in this proceeding will be in effect, and very well may go into effect after EPE files its next rate case. As such, relying on projected Treasury bond yields five to ten years into the future does not reasonably nor accurately measure EPE's cost of capital for setting rates in this case that will reflect its cost of capital during the period rates will be in effect. Ms. Nelson's consistent reliance on projected interest rates five to ten years out is unreasonable and should be rejected. These issues are discussed in greater detail below.

Q PLEASE DESCRIBE MS. NELSON'S MARKET RISK PREMIUMS.

A Ms. Nelson derived her market risk premiums by developing a DCF analysis for the market (S&P 500). Ms. Nelson used two market risk premium estimates of 11.90%, and 11.32% based on the DCF market return of 14.21% from Value Line less the current and projected 30-year Treasury bond yields of 2.31%, and 2.88%, respectively.[47]

Q WHAT ISSUES DO YOU HAVE WITH MS. NELSON'S MARKET RISK PREMIUM ESTIMATES?

A Ms. Nelson's DCF-derived market risk premium is based on an average market return of 14.21%,[48] which consists of a growth rate component of approximately 12.56% and

[47] *Id*. at 43-44 and Exhibit JEN-5.
[48] Exhibit JEN-4.

market-weighted dividend yields of 1.65%. As discussed above with respect to my own DCF model, the DCF model requires a long-term sustainable growth rate. Ms. Nelson's sustainable market growth rate of 12.56% is far too high to be a rational outlook for sustainable long-term market growth. These growth rates are nearly three times the long-term growth rate outlook for the U.S. GDP, which is 4.35% as discussed above.

As a result of these unreasonable long-term market growth rate estimates, Ms. Nelson's market DCF returns used in her CAPM analyses are inflated and not reliable. Consequently, Ms. Nelson's market risk premiums should be given minimal weight in estimating EPE's CAPM-based return on equity.

Q DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT MS. NELSON'S PROJECTED MARKET RETURNS?

A No. Historical data shows just how unreasonable Ms. Nelson's projected DCF return on the market is on a going-forward basis. Duff & Phelps estimates the actual capital appreciation for the S&P 500 over the period 1926 through 2020 to have been 6.2% to 8.0%.[49] This compares to Ms. Nelson's projected growth rate of the market of 12.56%.

Further, historically the geometric growth of the market of 6.2%[50] has reflected geometric growth of GDP over this same time period of approximately 6.2%.[51]

This review of historical data establishes two facts very clearly. First, historical, actual achieved growth has been substantially less than projected by Ms. Nelson. Second, historical growth of the market has tracked historical growth of the U.S. GDP. Projected growth of the U.S. GDP is now closer to the 4.0% to 4.5% range. All this information strongly supports the conclusion that Ms. Nelson's projected growth rate

[49] *Duff & Phelps 2021 SBBI Yearbook* at 6-17.
[50] *Id.*
[51] U.S. Bureau of Economic Analysis, January 28, 2021.

on the market of 12.56% is substantially overstated. While I do not endorse the use of a historical growth rate to draw assessments of the market's forward-looking growth rate outlooks, this data can be used to show how unreasonable and inflated Ms. Nelson's market return estimate is.

Q WHY DO YOU BELIEVE MS. NELSON'S RELIANCE ON A PROJECTED LONG-TERM RISK-FREE RATE IS UNREASONABLE?

A Her use of a long-term projected bond yield does not reflect market participants' outlooks for EPE's cost of capital during the period rates determined in this proceeding will be in effect. Her projected bond yield of 2.88% is based on (1) the average near-term projected 30-year Treasury bond yield of 2.57% based on the six quarter average ending Q3, 2022[52] and (2) the average (3.2%) of the projected 30-year treasury of 2.8% for the period 2022-2026 and the projected yield of 3.6% for the period 2027-2031.[53] These long-term projections are highly uncertain, and in any event, do not reflect the cost of capital in the test period or even the period over the next two to three years, which is when the rates determined in this proceeding will be in effect. As such, the market risk premium should be based on observable bond yields in the market today. Alternatively, the market risk premium should at most reflect bond yield projections through the time frame that the rates set in this case will be effective. While I am not a lawyer, it is my understanding that electric utilities in Texas are generally required to file a rate case every four years unless the Commission grants a good cause waiver to postpone those filings.

Ms. Nelson's primary reliance on forecasted Treasury bond yields is unreasonable because she is not considering the highly likely outcome that current

[52] *Blue Chip Financial Forecasts*, April 1, 2021 at 2; Nelson Direct Testimony at 42.
[53] *Blue Chip Financial Forecasts*, December 1, 2020 at 14; Nelson Direct Testimony at 42.

observable interest rates will prevail during the period in which rates determined in this proceeding will be in effect. This is important because, while current observable interest rates are actual market data that provides a measure of the current cost of capital, the accuracy of forecasted interest rates is highly problematic.

Q WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST RATES IS HIGHLY PROBLEMATIC?

A Over the last several years, observable current interest rates have been a more accurate predictor of future interest rates than economists' consensus projections. Exhibit MPG-21 illustrates this point. Specifically, on Exhibit MPG-21, under Columns 1 and 2, I show the actual market yield for Treasury bonds at the time a projection is made, and the corresponding projection for Treasury bond yields two years in the future, respectively.

As shown in Columns 1 and 2 of Exhibit MPG-21, over the last several years, Treasury yields were projected to increase relative to the actual Treasury yields at the time of the projection. In Column 4, I show the actual Treasury yield two years after the forecast. In Column 5, I show the actual yield change at the time of the projections relative to the projected yield change.

As shown in Exhibit MPG-21, economists have consistently projected that interest rates will increase over the near term. However, as shown in Column 5, those yield projections turned out to be overstated in almost every case. Indeed, actual Treasury yields have decreased or remained flat over the last several years rather than increasing as the economists' projections indicated. As such, current observable interest rates are just as likely to accurately predict future interest rates as are economists' projections.

Q DO YOU HAVE ANY FURTHER COMMENTS IN REGARD TO MS. NELSON'S CAPM ANALYSES?

A Yes. Ms. Nelson's standard practice is to rely on beta estimates from both *Value Line* (0.87) and Bloomberg (1.0).[54] However, to be conservative she used the Value Line betas in her CAPM studies. Ms. Nelson, also notes the increase in the beta coefficient since February 2020.[55] As discussed in regard to my own CAPM study the current beta estimates have increased substantially during the COVID-19 pandemic. However, these elevated beta estimates do not represent an increase in utility risk or cost of equity. As discussed above, utility companies are well positioned to weather economic downturns and are considered defensive stocks. Their cash flows strength is consistent and supported by strong valuations.

Q CAN MS. NELSON'S CAPM ANALYSIS BE REVISED TO REFLECT A MORE REASONABLE MARKET RISK PREMIUM AND RECENT RISK-FREE RATES?

A Yes. It is reasonable to revise Ms. Nelson's CAPM analysis by disregarding her long-term projected risk-free rate of 3.60% as described above and instead using her current and near-term projected risk-free rates of 2.31% and 2.68%, respectively. Applying those risk-free rates, the average *Value Line* beta estimate of 0.87 and my calculated market return of 11.50%, Ms. Nelson's CAPM would yield returns on equity no higher than 10.4%.[56] Applying the current and near-term risk-free rates of 2.31% and 2.68%, respectively, my market return of 11.50%, and the average historical beta for regulated utilities of approximately 0.71, will result in a CAPM return no higher than 8.9%.[57] However, Ms. Nelson's CAPM return estimate is influenced by an abnormally

[54] Nelson Direct Testimony at 43.
[55] *Id.* at 23-25.
[56] 2.68% + 0.87 x (11.50% - 2.68%) = 10.4%.
[57] 2.68% + 0.71 x (11.50% - 2.68%) = 8.9%.

high market risk premium and abnormally high utility beta estimates. Her 10.4% CAPM return is simply unreasonably high, and clearly out of line with other observable benchmarks for the current market cost of capital for EPE. The more normalized CAPM produces a return on equity of 8.9%, which is reasonably aligned with results based on DCF and other forms of risk premium analyses in the current market.

V.D. Nelson's ECAPM Studies

Q PLEASE DESCRIBE MS. NELSON'S ECAPM ANALYSIS.

A Ms. Nelson relies on empirical tests of the traditional CAPM model to modify it in such a way to attempt to *correct* the original CAPM for some deficiencies inherent in the original model. Empirical tests show that the expected return line, or security market line, predicted by the CAPM is not as steep as the model would have us believe. In other words, the traditional CAPM understates the expected return for securities with betas less than 1, and overstates the expected return for securities with betas greater than 1. In order to correct for this empirical finding, Ms. Nelson modifies the traditional CAPM model as follows:

$$R_i = R_f + 0.75 \times B_i \times (R_m - R_f) + 0.25 \times B_m \times (R_m - R_f)$$ where:

R_i = Required return for stock i
R_f = Risk-free rate
R_m = Expected return for the market portfolio
B_m = Beta of the market
B_i = Beta - Measure of the risk for stock

Q WHAT ISSUES DO YOU TAKE WITH MS. NELSON'S ECAPM ANALYSIS?

A The biggest issue I have with Ms. Nelson's ECAPM analysis is her use of an adjusted beta as published by *Value Line*. The impact of Ms. Nelson's ECAPM adjustments

increases her adjusted beta estimate of 0.87 to 0.90.[58] The weighting adjustments applied in the ECAPM are mathematically the same as adjusting beta since the inputs are all multiplicative as shown in the formula above.

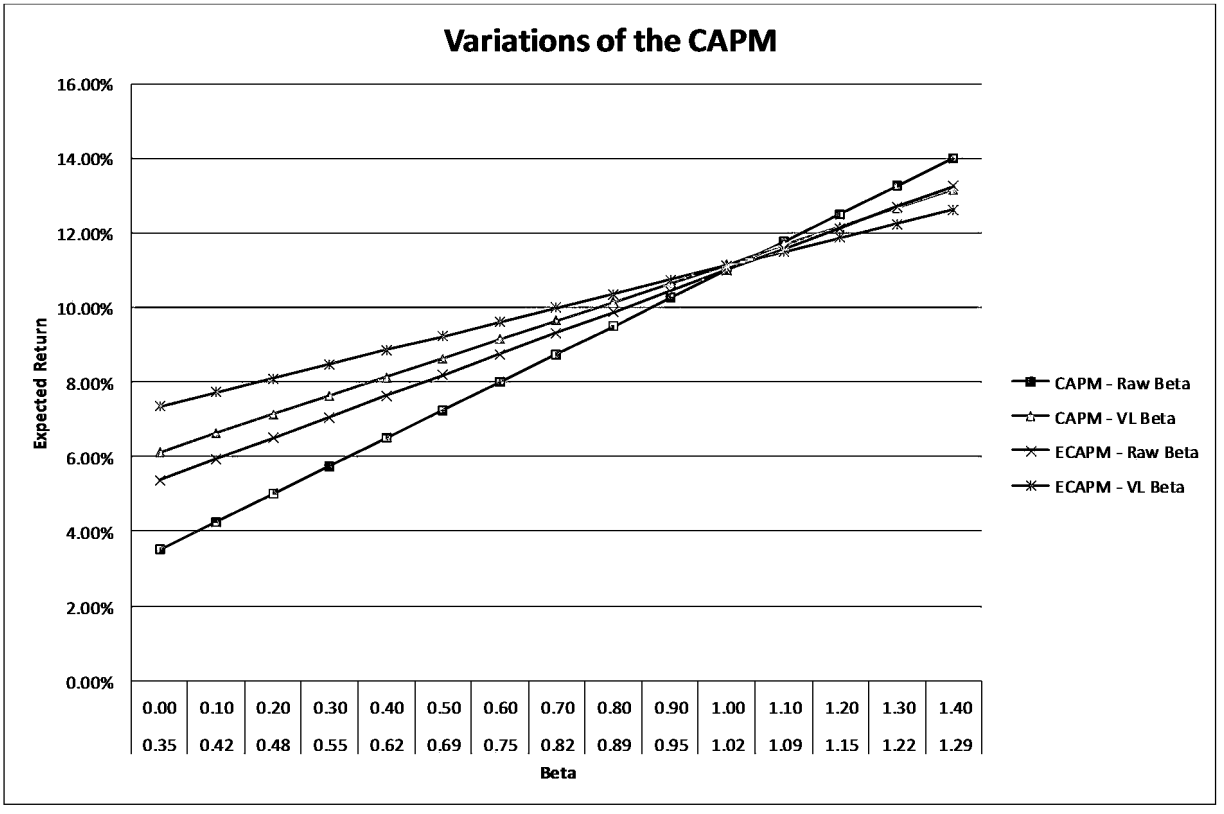
Further, Ms. Nelson's reliance on an adjusted *Value Line* beta in her ECAPM study is inconsistent with the academic research that I am aware of supporting the development of the ECAPM.[59] The end result of using adjusted betas in the ECAPM is essentially an expected return line that has been flattened by two adjustments. In other words, the vertical intercept has been raised twice and the security market line has been flattened twice: once through the adjustments *Value Line* made to the raw beta, and again by weighting the risk-adjusted market risk premium as Ms. Nelson has done. In addition to the many adjustments employed by Ms. Nelson, she further increases the intercept and flattens the security market line by using projected long-term Treasury yields that are at odds with current market expectations and inconsistent with the Federal Reserve's projections and monetary policy.

Ms. Nelson goes over the theory of the ECAPM at pages 45-47 of her Direct Testimony. The ECAPM with adjusted betas has the effect of increasing CAPM return estimates for companies with betas less than 1, and decreasing the CAPM return estimates for companies with betas greater than 1. I have modeled the expected return line resulting from the application of the various forms of the CAPM/ECAPM below in Figure 6.

[58] 75% x 0.87 + 25% x 1 = 0.90.

[59] *See* Black, Fischer, "Beta and Return," *The Journal of Portfolio Management,* Fall 1993, 8-18; and Black, Fischer, Michael C. Jensen and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests," 1972.

FIGURE 6



Along the horizontal axis in Figure 6 above, I have provided the raw unadjusted beta (top row) and the corresponding adjusted *Value Line* beta (bottom row). As shown in Figure 6 above, the CAPM using a *Value Line* beta compared to the CAPM using an unadjusted beta shows that the *Value Line* beta raises the intercept point and flattens the slope of the security market line. As shown in the figure above, the two variations with the most similar slope are the CAPM with the *Value Line* beta, and the ECAPM with a raw beta. This evidence shows that the ECAPM adjustment has a very similar impact on the expected return line as a *Value Line* beta. Another observation that can be made from the figure above is the magnifying effect that the ECAPM using a *Value Line* beta has on raising the vertical intercept and flattening the slope relative to all other variations. There is simply no legitimate basis to use an adjusted beta within an

ECAPM because it unjustifiably alters the security market line and materially inflates a CAPM return for a company with a beta less than 1.

Q IN YOUR EXPERIENCE, IS MS. NELSON'S PROPOSED USE OF AN ADJUSTED BETA IN AN ECAPM STUDY WIDELY ACCEPTED IN THE REGULATORY ARENA?

A No. In my experience, regulatory commissions generally disregard the use of the ECAPM, particularly when an adjusted beta is used in the model.

Q IS THERE A WAY TO MORE ACCURATELY MEASURE THE COST OF EQUITY FOR EPE USING THE ECAPM?

A Using the appropriate unadjusted beta in the ECAPM would produce a reasonable return estimate. This can be accomplished by removing, or backing out, the adjustment from *Value Line*'s published beta.

Removing *Value Line*'s beta adjustment will produce the original regression beta estimate. Using this regression beta in the ECAPM will produce a more accurate result than that offered by Ms. Nelson. As explained earlier, Ms. Nelson's proxy group has an average *Value Line* beta of 0.87. By removing the adjustments that *Value Line* made to produce the proxy group's average beta of 0.87, I have calculated the original regression beta of 0.78.[60] Using the regression beta of 0.78 in the ECAPM model shown above will produce an expected return estimate of approximately 10.0%.[61]

[60] Raw Beta = (VL Beta - 0.35) / 0.67, Raw Beta = (0.87-0.35)/0.67 = 0.78.

[61] ECAPM = RF + 0.25 x MRP + 0.75 x MRP x Unadjusted Beta. ECAPM = 2.68% + 0.25 x (11.5% - 2.68%) + 0.75 x (11.50% - 2.68%) x 0.78 = 10.0%.

V.E. Nelson's Bond Yield Plus ("BYP") Risk Premium

Q PLEASE DESCRIBE MS. NELSON'S BYP RISK PREMIUM METHODOLOGY.

A As shown on her Exhibit JEN-6, Ms. Nelson constructs a risk premium return on equity estimate based on the premise that equity risk premiums are inversely related to interest rates. She estimates the equity risk premium over the period January 1, 1980 through March 31, 2021. She then applies a regression formula to the current, projected 30-year Treasury bond yields of 2.31% and 2.88%, respectively, to produce equity risk premiums of 7.51% and 6.93%, respectively. She calculates a risk premium return on equity estimate of 9.81%.[62]

Q IS MS. NELSON'S BYP RISK PREMIUM METHODOLOGY REASONABLE?

A No. Ms. Nelson contends that there is a simplistic inverse relationship between equity risk premiums and interest rates without any regard to differences in investment risk. Academic studies are quite clear that interest rates are a relevant factor in assessing current market equity risk premiums, but the risk premium ties more specifically to the market's perception of investment risk of debt and equity securities, and not simply changes in interest rates.

More specifically, while academic studies have shown that, in the past, there has been an inverse relationship among these variables, researchers have found that the relationship changes over time and is influenced by changes in perception of the risk of bond investments relative to equity investments, and not simply changes in interest rates.[63]

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[62] Exhibit JEN-6.

[63] Robert S. Harris & Felicia C. Marston, "The Market Risk Premium: "Expectational Estimates Using Analysts' Forecasts," *Journal of Applied Finance*, Volume 11, No. 1, 2001 at 10-13; Eugene F. Brigham, Dilip K. Shome, & Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, at 42-43.

In the 1980s, equity risk premiums were inversely related to interest rates, but that was likely attributable to the interest rate volatility that existed at that time. As such, when interest rates were more volatile, perceptions of bond investment risk increased relative to the investment risk of equities. This changing investment risk perception caused changes in equity risk premiums.

In today's marketplace, interest rate volatility is not as extreme as it was during the 1980s.[64] Nevertheless, changes in the perceived risk of bond investments relative to equity investments still drive changes in equity premiums and cannot be measured simply by observing nominal interest rates. Changes in nominal interest rates are heavily influenced by changes to inflation outlooks, which also change equity return expectations. As such, the relevant factor needed to explain changes in equity risk premiums is the relative changes between the risk of equity versus debt investments, and not simply changes in interest rates.

Importantly, Ms. Nelson's analysis simply ignores investment risk differentials. She bases her adjustment to the equity risk premium exclusively on changes in nominal interest rates. This is a flawed methodology that does not produce accurate or reliable risk premium estimates.

Q DO YOU BELIEVE THAT THE REGRESSION STUDY USED BY MS. NELSON IN HER BYP DEMONSTRATES AN ACCURATE CAUSE AND EFFECT BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS?

A No. Because the returns on equity she uses are authorized by commissions, those returns on equity are not directly adjusted by market forces. While I also use commission-authorized returns as a proxy for market-required returns, of significance

[64] "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, at 44.

is the simple regression analysis that tries to describe and gauge equity risk premiums based on only changes in interest rates.

Equity risk premiums can move based on changes in market conditions that can impact both equity returns and bond returns in a like manner. This simple regression analysis of equity risk premiums and interest rates ignores these relevant market factors in describing the current market-required equity risk premium.

Q CAN MS. NELSON'S BYP RISK PREMIUM ANALYSIS BE REVISED TO REFLECT CURRENT PROJECTIONS OF TREASURY YIELDS?

A Yes. Ms. Nelson's simplistic and incomplete notion that equity risk premiums change only with changes to nominal interest rates should be rejected. Adding my high-end average equity risk premium over Treasury bonds of 6.36% to her Treasury yields of 2.31% and 2.68%, produces a BYP no higher than 9.00%.

V.F. Ms. Nelson's Consideration of Additional Risks

Q DID MS. NELSON INJECT CONSIDERATION OF ADDITIONAL BUSINESS RISKS TO JUSTIFY HER RETURN ON EQUITY?

A It appears so. Ms. Nelson believes that EPE is exposed to additional risks that should be accounted for: (1) EPE's regulatory environment and its capital expenditure plan; (2) The Company's nuclear generation operations; and (3) EPE's small size relative to the proxy group companies.[65] Ms. Nelson believes that these additional risks should be considered in determining EPE's return on equity. As discussed below, EPE's relative risk is comparable to the risk of the utility companies included in the proxy group.

[65] Nelson Direct Testimony at 50-61.

Q PLEASE EXPLAIN.

A The major business risks identified by Ms. Nelson are already considered in the assigning of a credit rating by the various credit rating agencies.

The average S&P credit rating for my proxy group of BBB+, as shown on my Exhibit MPG-3, is comparable to EPE's credit rating from Fitch of BBB. The relative risks discussed on pages 50-61 of Ms. Nelson's direct testimony are already incorporated in the credit ratings of the proxy group companies. Indeed, S&P and other credit rating agencies go to great lengths and detail in assessing a utility's business risk and financial risk in order to evaluate total investment risk. This total investment risk assessment of EPE, in comparison to a proxy group, is fully absorbed into the market's perception of EPE's risk. The use of my proxy group fully captures the investment risk of EPE.

Q HOW DOES S&P ASSIGN CORPORATE CREDIT RATINGS FOR REGULATED UTILITIES?

A In assigning corporate credit ratings, the credit rating agency considers both business and financial risks. Business risks, among others, include a company's size, competitive position, generation portfolio, and capital expenditure programs, as well as consideration of the regulatory environment, current state of the industry, and the economy as whole. Specifically, S&P states:

> To determine the assessment for a corporate issuer's business risk profile, the criteria combine our assessments of industry risk, country risk, and competitive position. Cash flow/leverage analysis determines a company's financial risk profile assessment. The analysis then combines the corporate issuer's business risk profile assessment and its financial risk profile assessment to determine its anchor. In general, the analysis weighs the business risk profile more heavily for

investment-grade anchors, while the financial risk profile carries more weight for speculative-grade anchors.[66]

V.F.1. Size Adjustment

Q PLEASE DESCRIBE MS. NELSON'S SIZE ADJUSTMENT.

A Ms. Nelson establishes a hypothetical market capitalization of $1,934.41 million for EPE based on the Company's Texas rate base or $2,471.15 for total Company rate base, which she compares to the market capitalization of the utility companies included in her proxy group. Ms. Nelson's size adjustment return on equity adder is based on estimates made by Duff & Phelps' *Cost of Capital Navigator*. Duff & Phelps estimates various size adjustments based on differentials in beta estimates tied to the size of a company. Ms. Nelson determines that EPE falls in Duff & Phelps 6th Decile, which warrants a size adjustment of 137 basis points. Similarly, on Exhibit JEN-7 of her direct testimony she notes that the capitalization of the companies included in her proxy group falls in the 3rd Decile, which warrants a size adjustment of 71 basis points. She concluded that the appropriate size adjustment is the difference between these two size premia of 66 basis points.[67]

Ms. Nelson developed a similar analysis based on her hypothetical total Company capitalization of $2,471.15 million and concluded that an appropriate size adjustment is approximately 38 basis points.[68]

Ms. Nelson does not propose a specific size adjustment but she considers it in determining the appropriate return for EPE.[69]

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[66] *Standard & Poor's RatingsDirect:* "Criteria/Corporates/General: Corporate Methodology," November 19, 2013.

[67] Nelson Direct Testimony at 60.

[68] *Id.*

[69] *Id.*

Q DO YOU FIND MS. NELSON'S SIZE ADJUSTMENT REASONABLE?

A No. There are several problems with this size adjustment. First, Ms. Nelson applied a size adjustment without even considering the average capitalization of her proxy group relative to the capitalization structure which supports EPE. EPE is a wholly-owned subsidiary of Sun Jupiter Holdings LLC ("Sun Jupiter"), an affiliate of the Infrastructure Investments Fund ("IIF"), a private investment vehicle advised by an infrastructure investment group within J.P. Morgan Investment Management Inc. A return on equity adder is not justified in the way performed by Ms. Nelson, because she has not accurately measured the corporate structure which owns EPE. Importantly, as discussed above, the size-specific risk is already incorporated in the Company's credit rating and should be rejected.

V.F.2. Capital Market Conditions

Q DID MS. NELSON ALSO OFFER AN ASSESSMENT OF CURRENT MARKET CONDITIONS IN SUPPORT OF HER RECOMMENDED RETURN ON EQUITY RANGE?

A Yes. Ms. Nelson observes the market volatility levels as measured by the Chicago Board of Exchange ("CBOE"), Implied Volatility Index ("VIX') and its impact on interest rates and expected returns.[70] Specifically, Ms. Nelson also states that the market volatility as measured by the VIX, which generally tracks broader market equity security values, has increased relative to historical standards and it is expected to remain elevated.[71] She concludes that due to this increased volatility utility investors face greater risks and require higher returns.

[70] *Id*. at 17-28.
[71] *Id*. at 18-20.

Q IS THE VIX INDEX ADEQUATE TO SUPPORT THE NOTION THAT THE MARKET PERCEPTION OF THE INVESTMENT RISK OF EPE OR UTILITIES GENERALLY IS INCREASING?

A No. First, the VIX is a broader-based market index of stock price volatility, and not that of subgroups within the market generally, and certainly not applicable to the utility subsector. Utility securities are generally regarded as defensive stocks, and the market generally flocks to low-risk sectors during periods of broader economic distress. The VIX index may indicate greater risk in the overall market but that does not indicate a similar change in investment risk for lower-risk regulated utility companies. Second, the VIX is a measure of 30-day expected volatility, which is a relatively short-term estimate and it does not represent the volatility level effective during the period rates determined in this regulatory proceeding.

Q DO YOU BELIEVE THAT MS. NELSON'S USE OF THESE MARKET SENTIMENTS SUPPORTS HER FINDINGS THAT EPE'S MARKET COST OF EQUITY IS CURRENTLY 10.30%?

A No. In many instances, Ms. Nelson's analysis simply ignores market sentiments favorable toward utility companies and instead lumps utility investments in with general corporate investments. A fair analysis of utility securities shows the market generally regards utility securities as low-risk investment instruments and supports the finding that utilities' cost of capital is very low in today's marketplace.

Q WHAT IS THE MARKET SENTIMENT FOR UTILITY INVESTMENTS?

A Again, the current market sentiment toward utility investments, rather than just general corporate investments, is that the market is placing high value on utility securities, recognizing their low risk and stable characteristics. This is illustrated by current utility

bond yield spreads as discussed at length previously. The current strong utility bond valuation is an indication of the market's sentiment that utility bonds are lower risk and are generally regarded as a defensive stocks by the investment industry.

Further, other measures of utility stock valuations also support the conclusion that there is a robust market for utility stocks. As shown on my Exhibit MPG-2, financial valuation measures (*e.g.*, P/E ratio and market price to cash flow ratio) show that utility stock valuation measures are robust.

For all these reasons, direct assessments of valuation measures and market sentiment toward utility securities support the credit rating agencies' findings, as quoted above, that the utility industry is largely regarded as a low-risk, safe haven investment. All of this supports my finding that utilities' market cost of equity is very low in today's very low-cost capital market environment.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Michael P. Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and a Managing Principal with the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A In 1983 I received a Bachelor of Science Degree in Electrical Engineering from Southern Illinois University, and in 1986, I received a Master's Degree in Business Administration with a concentration in Finance from the University of Illinois at Springfield. I have also completed several graduate level economics courses.

In August of 1983, I accepted an analyst position with the Illinois Commerce Commission ("ICC"). In this position, I performed a variety of analyses for both formal and informal investigations before the ICC, including: marginal cost of energy, central dispatch, avoided cost of energy, annual system production costs, and working capital. In October of 1986, I was promoted to the position of Senior Analyst. In this position, I assumed the additional responsibilities of technical leader on projects, and my areas of responsibility were expanded to include utility financial modeling and financial analyses.

In 1987, I was promoted to Director of the Financial Analysis Department. In this position, I was responsible for all financial analyses conducted by the Staff. Among other things, I conducted analyses and sponsored testimony before the ICC on rate of return, financial integrity, financial modeling and related issues. I also supervised the development of all Staff analyses and testimony on these same issues. In addition, I supervised the Staff's review and recommendations to the Commission concerning utility plans to issue debt and equity securities.

In August of 1989, I accepted a position with Merrill-Lynch as a financial consultant. After receiving all required securities licenses, I worked with individual investors and small businesses in evaluating and selecting investments suitable to their requirements.

In September of 1990, I accepted a position with Drazen-Brubaker & Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and Staff. Since 1990, I have performed various analyses and sponsored testimony on cost of capital, cost/benefits of utility mergers and acquisitions, utility reorganizations, level of operating expenses and rate base, cost of service studies, and analyses relating to industrial jobs and economic development. I also participated in a study used to revise the financial policy for the municipal utility in Kansas City, Kansas.

At BAI, I also have extensive experience working with large energy users to distribute and critically evaluate responses to requests for proposals ("RFPs") for electric, steam, and gas energy supply from competitive energy suppliers. These analyses include the evaluation of gas supply and delivery charges, cogeneration and/or combined cycle unit feasibility studies, and the evaluation of third-party asset/supply management agreements. I have participated in rate cases on rate

design and class cost of service for electric, natural gas, water and wastewater utilities. I have also analyzed commodity pricing indices and forward pricing methods for third party supply agreements, and have also conducted regional electric market price forecasts.

In addition to our main office in St. Louis, the firm also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of service and other issues before the Federal Energy Regulatory Commission and numerous state regulatory commissions including: Alaska, Arkansas, Arizona, California, Colorado, Delaware, the District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the provincial regulatory boards in Alberta, Nova Scotia, and Quebec, Canada. I have also sponsored testimony before the Board of Public Utilities in Kansas City, Kansas; presented rate setting position reports to the regulatory board of the municipal utility in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers; and negotiated rate disputes for industrial customers of the Municipal Electric Authority of Georgia in the LaGrange, Georgia district.

Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZATIONS TO WHICH YOU BELONG.

A I earned the designation of Chartered Financial Analyst ("CFA") from the CFA Institute. The CFA charter was awarded after successfully completing three examinations which covered the subject areas of financial accounting, economics, fixed income and equity valuation and professional and ethical conduct. I am a member of the CFA Institute's Financial Analyst Society.

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