

Application No. 22-05-006
Exhibit PAC/1401
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Summary of ROE Analyses Results

February 2023

Constant Growth DCF			
	Minimum Gwth Rate	Average Gwth Rate	Maximum Gwth Rate
Mean Results:			
30-Day Avg. Stock Price	8.08%	9.38%	10.41%
90-Day Avg. Stock Price	8.17%	9.47%	10.50%
180-Day Avg. Stock Price	8.09%	9.39%	10.42%
Average	8.11%	9.41%	10.44%
Median Results:			
30-Day Avg. Stock Price	8.03%	9.33%	10.27%
90-Day Avg. Stock Price	8.00%	9.39%	10.37%
180-Day Avg. Stock Price	7.91%	9.32%	10.19%
Average	7.98%	9.35%	10.28%
CAPM / ECAPM / Bond Yield Risk Premium			
	Current 30-Day Avg 30-Year Treasury Yield	Near-Term Projected 30-Year Treasury Yield	Longer-Term Projected 30-Year Treasury Yield
CAPM:			
Current <i>Value Line</i> Beta	11.48%	11.50%	11.50%
Current Bloomberg Beta	10.90%	10.93%	10.94%
Long-term Avg. <i>Value Line</i> Beta	10.42%	10.46%	10.47%
ECAPM:			
Current <i>Value Line</i> Beta	11.77%	11.78%	11.79%
Current Bloomberg Beta	11.33%	11.36%	11.36%
Long-term Avg. <i>Value Line</i> Beta	10.97%	11.01%	11.01%
Bond Yield Risk Premium:			
US Vertically-Integrated Elec Utils	10.24%	10.31%	10.32%
CA Vertically-Integrated Elec Utils	10.66%	10.71%	10.72%

Application No. 22-05-006
Exhibit PAC/1402
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Constant Growth DCF Model

February 2023

Exhibit 1402/CONSTANT GROWTH DCF MODEL
PacifiCorp Proxy Group

Stock Price Averaging Convention: 30 days

		1	2	3	4	5	6	7	8	9	10	11
Company		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	VL Earnings Growth	Yahoo! Finance (IBES)	Zacks Earnings Growth	Average Growth Rate	Min Gwth Rate	Mean Gwth Rate	Max Gwth Rate
ALLETE, Inc.	ALE	\$2.60	\$65.18	3.99%	4.15%	6.00%	8.70%	9.30%	8.00%	10.11%	12.15%	13.47%
Alliant Energy Corporation	LNT	\$1.71	\$55.33	3.09%	3.18%	6.00%	5.53%	5.90%	5.81%	8.71%	8.99%	9.18%
Ameren Corporation	AEE	\$2.36	\$87.99	2.68%	2.77%	6.50%	5.91%	6.90%	6.44%	8.67%	9.21%	9.67%
American Electric Power Company, Inc.	AEP	\$3.32	\$95.32	3.48%	3.59%	6.50%	6.18%	6.10%	6.26%	9.69%	9.85%	10.10%
Avista Corporation	AVA	\$1.76	\$41.98	4.19%	4.29%	3.00%	5.20%	5.20%	4.47%	7.26%	8.75%	9.50%
CMS Energy Corporation	CMS	\$1.84	\$61.86	2.97%	3.09%	6.50%	8.26%	8.20%	7.65%	9.57%	10.74%	11.36%
Duke Energy Corporation	DUK	\$4.02	\$100.46	4.00%	4.11%	5.00%	6.15%	5.50%	5.55%	9.10%	9.66%	10.27%
Entergy Corporation	ETR	\$4.28	\$114.57	3.74%	3.84%	4.00%	6.19%	6.80%	5.66%	7.81%	9.50%	10.66%
Evergy, Inc.	EVERG	\$2.45	\$60.86	4.03%	4.13%	7.50%	2.43%	5.30%	5.08%	6.50%	9.20%	11.68%
IDACORP, Inc.	IDA	\$3.16	\$107.53	2.94%	2.99%	4.00%	3.40%	3.40%	3.60%	6.39%	6.59%	7.00%
NextEra Energy, Inc.	NEE	\$1.70	\$84.45	2.01%	2.12%	10.50%	10.36%	9.70%	10.19%	11.81%	12.30%	12.62%
NorthWestern Corporation	NWE	\$2.52	\$57.22	4.40%	4.47%	2.50%	4.50%	1.70%	2.90%	6.14%	7.37%	9.00%
OGE Energy Corporation	OGE	\$1.66	\$39.74	4.17%	4.26%	6.50%	1.90%	5.00%	4.47%	6.11%	8.73%	10.80%
Otter Tail Corporation	OTTR	\$1.65	\$58.28	2.83%	2.93%	4.50%	9.00%	n/a	6.75%	7.39%	9.68%	11.96%
Portland General Electric Company	POR	\$1.81	\$48.11	3.76%	3.83%	4.50%	1.39%	5.30%	3.73%	5.18%	7.56%	9.16%
Southern Company	SO	\$2.72	\$68.76	3.96%	4.07%	6.50%	6.68%	4.00%	5.73%	8.03%	9.80%	10.77%
Xcel Energy Inc.	XEL	\$1.95	\$69.40	2.81%	2.90%	6.00%	6.80%	6.50%	6.43%	8.89%	9.33%	9.71%
Mean										8.08%	9.38%	10.41%
Median										8.03%	9.33%	10.27%

Notes:

[1] Bloomberg Professional as of December 31, 2022.

[2] Bloomberg Professional 30-day average as of December 31, 2022.

[3] Equals [1]/[2].

[4] Equals [3] x (1+0.5 x[8]).

[5] Value Line.

[6] Yahoo! Finance.

[7] Zacks.

[8] Equals average of [5], [6], [7].

[9] Equals [3] x (1+0.5x(min([5], [6], [7]))+(min([5], [6], [7])).

[10] Equals [4] + [8].

[11] Equals [3] x (1+0.5x(max([5], [6], [7]))+(max([5], [6], [7])).

Exhibit 1402/CONSTANT GROWTH DCF MODEL
PacifiCorp Proxy Group

Stock Price Averaging Convention: 90 days

Company		1 Annualized Dividend	2 Stock Price	3 Dividend Yield	4 Expected Dividend	5 VL Earnings Growth	6 Yahoo! Finance	7 Zacks Earnings	8 Average Growth	9 Min Gwth Rate	10 Mean Gwth Rate	11 Max Gwth Rate
ALLETE, Inc.	ALE	\$2.60	\$58.55	4.44%	4.62%	6.00%	8.70%	9.30%	8.00%	10.57%	12.62%	13.95%
Alliant Energy Corporation	LNT	\$1.71	\$55.33	3.09%	3.18%	6.00%	5.53%	5.90%	5.81%	8.71%	8.99%	9.18%
Ameren Corporation	AEE	\$2.36	\$85.80	2.75%	2.84%	6.50%	5.91%	6.90%	6.44%	8.74%	9.28%	9.75%
American Electric Power Company, Inc.	AEP	\$3.32	\$93.15	3.56%	3.68%	6.50%	6.18%	6.10%	6.26%	9.77%	9.94%	10.18%
Avista Corporation	AVA	\$1.76	\$39.93	4.41%	4.51%	3.00%	5.20%	5.20%	4.47%	7.47%	8.97%	9.72%
CMS Energy Corporation	CMS	\$1.84	\$61.12	3.01%	3.13%	6.50%	8.26%	8.20%	7.65%	9.61%	10.78%	11.39%
Duke Energy Corporation	DUK	\$4.02	\$98.28	4.09%	4.20%	5.00%	6.15%	5.50%	5.55%	9.19%	9.75%	10.37%
Entergy Corporation	ETR	\$4.28	\$110.52	3.87%	3.98%	4.00%	6.19%	6.80%	5.66%	7.95%	9.65%	10.80%
Evergy, Inc.	EVRG	\$2.45	\$61.82	3.96%	4.06%	7.50%	2.43%	5.30%	5.08%	6.44%	9.14%	11.61%
IDACORP, Inc.	IDA	\$3.16	\$104.70	3.02%	3.07%	4.00%	3.40%	3.40%	3.60%	6.47%	6.67%	7.08%
NextEra Energy, Inc.	NEE	\$1.70	\$82.00	2.07%	2.18%	10.50%	10.36%	9.70%	10.19%	11.87%	12.37%	12.68%
NorthWestern Corporation	NWE	\$2.52	\$53.61	4.70%	4.77%	2.50%	4.50%	1.70%	2.90%	6.44%	7.67%	9.31%
OGE Energy Corporation	OGE	\$1.66	\$38.56	4.30%	4.39%	6.50%	1.90%	5.00%	4.47%	6.24%	8.86%	10.94%
Otter Tail Corporation	OTTR	\$1.65	\$63.11	2.61%	2.70%	4.50%	9.00%	n/a	6.75%	7.17%	9.45%	11.73%
Portland General Electric Company	POR	\$1.81	\$47.08	3.84%	3.92%	4.50%	1.39%	5.30%	3.73%	5.26%	7.65%	9.25%
Southern Company	SO	\$2.72	\$69.33	3.92%	4.04%	6.50%	6.68%	4.00%	5.73%	8.00%	9.76%	10.73%
Xcel Energy Inc.	XEL	\$1.95	\$68.07	2.86%	2.96%	6.00%	6.80%	6.50%	6.43%	8.95%	9.39%	9.76%
Mean										8.17%	9.47%	10.50%
Median										8.00%	9.39%	10.37%

Notes:

[1] Bloomberg Professional as of December 31, 2022.

[2] Bloomberg Professional 90-day average as of December 31, 2022.

[3] Equals [1]/[2].

[4] Equals [3] x (1+0.5 x[8]).

[5] Value Line.

[6] Yahoo! Finance.

[7] Zacks.

[8] Equals average of [5], [6], [7].

[9] Equals [3] x (1+0.5x(min([5], [6], [7]))+(min([5], [6], [7])).

[10] Equals [4] + [8].

[11] Equals [3] x (1+0.5x(max([5], [6], [7]))+(max([5], [6], [7])).

Exhibit 1402/CONSTANT GROWTH DCF MODEL
PacifiCorp Proxy Group

Stock Price Averaging Convention: 180 days

Company		1 Annualized Dividend	2 Stock Price	3 Dividend Yield	4 Expected Dividend	5 VL Earnings Growth	6 Yahoo! Finance	7 Zacks Earnings	8 Average Growth	9 Min Gwth Rate	10 Mean Gwth Rate	11 Max Gwth Rate
ALLETE, Inc.	ALE	\$2.60	\$58.88	4.42%	4.59%	6.00%	8.70%	9.30%	8.00%	10.55%	12.59%	13.92%
Alliant Energy Corporation	LNT	\$1.71	\$57.17	2.99%	3.08%	6.00%	5.53%	5.90%	5.81%	8.60%	8.89%	9.08%
Ameren Corporation	AEE	\$2.36	\$87.98	2.68%	2.77%	6.50%	5.91%	6.90%	6.44%	8.67%	9.21%	9.68%
American Electric Power Company, Inc.	AEP	\$3.32	\$94.92	3.50%	3.61%	6.50%	6.18%	6.10%	6.26%	9.70%	9.87%	10.11%
Avista Corporation	AVA	\$1.76	\$40.77	4.32%	4.41%	3.00%	5.20%	5.20%	4.47%	7.38%	8.88%	9.63%
CMS Energy Corporation	CMS	\$1.84	\$64.15	2.87%	2.98%	6.50%	8.26%	8.20%	7.65%	9.46%	10.63%	11.25%
Duke Energy Corporation	DUK	\$4.02	\$102.51	3.92%	4.03%	5.00%	6.15%	5.50%	5.55%	9.02%	9.58%	10.19%
Entergy Corporation	ETR	\$4.28	\$112.16	3.82%	3.92%	4.00%	6.19%	6.80%	5.66%	7.89%	9.59%	10.75%
Evergy, Inc.	EVRG	\$2.45	\$63.90	3.83%	3.93%	7.50%	2.43%	5.30%	5.08%	6.31%	9.01%	11.48%
IDACORP, Inc.	IDA	\$3.16	\$105.46	3.00%	3.05%	4.00%	3.40%	3.40%	3.60%	6.45%	6.65%	7.06%
NextEra Energy, Inc.	NEE	\$1.70	\$79.78	2.13%	2.24%	10.50%	10.36%	9.70%	10.19%	11.93%	12.43%	12.74%
NorthWestern Corporation	NWE	\$2.52	\$54.99	4.58%	4.65%	2.50%	4.50%	1.70%	2.90%	6.32%	7.55%	9.19%
OGE Energy Corporation	OGE	\$1.66	\$38.79	4.27%	4.37%	6.50%	1.90%	5.00%	4.47%	6.21%	8.83%	10.91%
Otter Tail Corporation	OTTR	\$1.65	\$64.73	2.55%	2.63%	4.50%	9.00%	n/a	6.75%	7.11%	9.38%	11.66%
Portland General Electric Company	POR	\$1.81	\$47.92	3.78%	3.85%	4.50%	1.39%	5.30%	3.73%	5.19%	7.58%	9.18%
Southern Company	SO	\$2.72	\$70.87	3.84%	3.95%	6.50%	6.68%	4.00%	5.73%	7.91%	9.67%	10.65%
Xcel Energy Inc.	XEL	\$1.95	\$69.67	2.80%	2.89%	6.00%	6.80%	6.50%	6.43%	8.88%	9.32%	9.69%
Mean										8.09%	9.39%	10.42%
Median										7.91%	9.32%	10.19%

Notes:

[1] Bloomberg Professional as of December 31, 2022.

[2] Bloomberg Professional 180-day average as of December 31, 2022.

[3] Equals [1]/[2].

[4] Equals [3] x (1+0.5 x[8]).

[5] Value Line.

[6] Yahoo! Finance.

[7] Zacks.

[8] Equals average of [5], [6], [7].

[9] Equals [3] x (1+0.5x(min([5], [6], [7]))+(min([5], [6], [7])).

[10] Equals [4] + [8].

[11] Equals [3] x (1+0.5x(max([5], [6], [7]))+(max([5], [6], [7])).

Application No. 22-05-006
Exhibit PAC/1403
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Capital Asset Pricing Model

February 2023

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Current Risk Free Rate / Value Line Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.71%	0.90	12.63%	8.92%	11.74%	11.96%
Alliant Energy Corporation	LNT	3.71%	0.85	12.63%	8.92%	11.29%	11.63%
Ameren Corporation	AEE	3.71%	0.85	12.63%	8.92%	11.29%	11.63%
American Electric Power Company, Inc.	AEP	3.71%	0.75	12.63%	8.92%	10.40%	10.96%
Avista Corporation	AVA	3.71%	0.90	12.63%	8.92%	11.74%	11.96%
CMS Energy Corporation	CMS	3.71%	0.80	12.63%	8.92%	10.85%	11.29%
Duke Energy Corporation	DUK	3.71%	0.85	12.63%	8.92%	11.29%	11.63%
Entergy Corporation	ETR	3.71%	0.95	12.63%	8.92%	12.19%	12.30%
Evergy, Inc.	EVERG	3.71%	0.90	12.63%	8.92%	11.74%	11.96%
IDACORP, Inc.	IDA	3.71%	0.80	12.63%	8.92%	10.85%	11.29%
NextEra Energy, Inc.	NEE	3.71%	0.90	12.63%	8.92%	11.74%	11.96%
NorthWestern Corporation	NWE	3.71%	0.90	12.63%	8.92%	11.74%	11.96%
OGE Energy Corporation	OGE	3.71%	1.00	12.63%	8.92%	12.63%	12.63%
Otter Tail Corporation	OTTR	3.71%	0.85	12.63%	8.92%	11.29%	11.63%
Portland General Electric Company	POR	3.71%	0.85	12.63%	8.92%	11.29%	11.63%
Southern Company	SO	3.71%	0.95	12.63%	8.92%	12.19%	12.30%
Xcel Energy Inc.	XEL	3.71%	0.80	12.63%	8.92%	10.85%	11.29%
Mean						11.48%	11.77%
Median						11.29%	11.63%

Notes:

[1] Bloomberg Professional; 30-day average as of December 31, 2022.

[2] Value Line.

[3] PAC/1404.

[4] Equals [3]-[1].

[5] Equals [1] + [2] x [4].

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4]).

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Near-Term Projected Risk Free Rate / Value Line Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.88%	0.90	12.63%	8.75%	11.76%	11.98%
Alliant Energy Corporation	LNT	3.88%	0.85	12.63%	8.75%	11.32%	11.65%
Ameren Corporation	AEE	3.88%	0.85	12.63%	8.75%	11.32%	11.65%
American Electric Power Company, Inc.	AEP	3.88%	0.75	12.63%	8.75%	10.44%	10.99%
Avista Corporation	AVA	3.88%	0.90	12.63%	8.75%	11.76%	11.98%
CMS Energy Corporation	CMS	3.88%	0.80	12.63%	8.75%	10.88%	11.32%
Duke Energy Corporation	DUK	3.88%	0.85	12.63%	8.75%	11.32%	11.65%
Entergy Corporation	ETR	3.88%	0.95	12.63%	8.75%	12.20%	12.30%
Evergy, Inc.	EVERG	3.88%	0.90	12.63%	8.75%	11.76%	11.98%
IDACORP, Inc.	IDA	3.88%	0.80	12.63%	8.75%	10.88%	11.32%
NextEra Energy, Inc.	NEE	3.88%	0.90	12.63%	8.75%	11.76%	11.98%
NorthWestern Corporation	NWE	3.88%	0.90	12.63%	8.75%	11.76%	11.98%
OGE Energy Corporation	OGE	3.88%	1.00	12.63%	8.75%	12.63%	12.63%
Otter Tail Corporation	OTTR	3.88%	0.85	12.63%	8.75%	11.32%	11.65%
Portland General Electric Company	POR	3.88%	0.85	12.63%	8.75%	11.32%	11.65%
Southern Company	SO	3.88%	0.95	12.63%	8.75%	12.20%	12.30%
Xcel Energy Inc.	XEL	3.88%	0.80	12.63%	8.75%	10.88%	11.32%
Mean						11.50%	11.78%
Median						11.32%	11.65%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 42, No. 1, January 1, 2023, at 2.

[2] Value Line.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Long-Term Projected Risk Free Rate / Value Line Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.90%	0.90	12.63%	8.73%	11.76%	11.98%
Alliant Energy Corporation	LNT	3.90%	0.85	12.63%	8.73%	11.32%	11.65%
Ameren Corporation	AEE	3.90%	0.85	12.63%	8.73%	11.32%	11.65%
American Electric Power Company, Inc.	AEP	3.90%	0.75	12.63%	8.73%	10.45%	11.00%
Avista Corporation	AVA	3.90%	0.90	12.63%	8.73%	11.76%	11.98%
CMS Energy Corporation	CMS	3.90%	0.80	12.63%	8.73%	10.89%	11.32%
Duke Energy Corporation	DUK	3.90%	0.85	12.63%	8.73%	11.32%	11.65%
Entergy Corporation	ETR	3.90%	0.95	12.63%	8.73%	12.20%	12.31%
Evergy, Inc.	EVRG	3.90%	0.90	12.63%	8.73%	11.76%	11.98%
IDACORP, Inc.	IDA	3.90%	0.80	12.63%	8.73%	10.89%	11.32%
NextEra Energy, Inc.	NEE	3.90%	0.90	12.63%	8.73%	11.76%	11.98%
NorthWestern Corporation	NWE	3.90%	0.90	12.63%	8.73%	11.76%	11.98%
OGE Energy Corporation	OGE	3.90%	1.00	12.63%	8.73%	12.63%	12.63%
Otter Tail Corporation	OTTR	3.90%	0.85	12.63%	8.73%	11.32%	11.65%
Portland General Electric Company	POR	3.90%	0.85	12.63%	8.73%	11.32%	11.65%
Southern Company	SO	3.90%	0.95	12.63%	8.73%	12.20%	12.31%
Xcel Energy Inc.	XEL	3.90%	0.80	12.63%	8.73%	10.89%	11.32%
Mean						11.50%	11.79%
Median						11.32%	11.65%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 41, No. 12, December 1, 2022, at 14

[2] Value Line.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Current Risk Free Rate / Bloomberg Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.71%	0.84	12.63%	8.92%	11.18%	11.54%
Alliant Energy Corporation	LNT	3.71%	0.80	12.63%	8.92%	10.83%	11.28%
Ameren Corporation	AEE	3.71%	0.76	12.63%	8.92%	10.48%	11.02%
American Electric Power Company, Inc.	AEP	3.71%	0.77	12.63%	8.92%	10.60%	11.11%
Avista Corporation	AVA	3.71%	0.76	12.63%	8.92%	10.51%	11.04%
CMS Energy Corporation	CMS	3.71%	0.76	12.63%	8.92%	10.47%	11.01%
Duke Energy Corporation	DUK	3.71%	0.73	12.63%	8.92%	10.19%	10.80%
Entergy Corporation	ETR	3.71%	0.86	12.63%	8.92%	11.40%	11.71%
Evergy, Inc.	EVERG	3.71%	0.79	12.63%	8.92%	10.74%	11.22%
IDACORP, Inc.	IDA	3.71%	0.81	12.63%	8.92%	10.93%	11.36%
NextEra Energy, Inc.	NEE	3.71%	0.83	12.63%	8.92%	11.10%	11.48%
NorthWestern Corporation	NWE	3.71%	0.87	12.63%	8.92%	11.43%	11.73%
OGE Energy Corporation	OGE	3.71%	0.93	12.63%	8.92%	12.00%	12.16%
Otter Tail Corporation	OTTR	3.71%	0.88	12.63%	8.92%	11.57%	11.83%
Portland General Electric Company	POR	3.71%	0.79	12.63%	8.92%	10.75%	11.22%
Southern Company	SO	3.71%	0.78	12.63%	8.92%	10.68%	11.17%
Xcel Energy Inc.	XEL	3.71%	0.75	12.63%	8.92%	10.40%	10.96%
Mean						10.90%	11.33%
Median						10.75%	11.22%

Notes:

[1] Bloomberg Professional; 30-day average as of December 31, 2022.

[2] Bloomberg Professional.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Near-Term Projected Risk Free Rate / Bloomberg Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.88%	0.84	12.63%	8.75%	11.20%	11.56%
Alliant Energy Corporation	LNT	3.88%	0.80	12.63%	8.75%	10.87%	11.31%
Ameren Corporation	AEE	3.88%	0.76	12.63%	8.75%	10.52%	11.05%
American Electric Power Company, Inc.	AEP	3.88%	0.77	12.63%	8.75%	10.64%	11.14%
Avista Corporation	AVA	3.88%	0.76	12.63%	8.75%	10.55%	11.07%
CMS Energy Corporation	CMS	3.88%	0.76	12.63%	8.75%	10.51%	11.04%
Duke Energy Corporation	DUK	3.88%	0.73	12.63%	8.75%	10.24%	10.84%
Entergy Corporation	ETR	3.88%	0.86	12.63%	8.75%	11.43%	11.73%
Evergy, Inc.	EVERG	3.88%	0.79	12.63%	8.75%	10.78%	11.24%
IDACORP, Inc.	IDA	3.88%	0.81	12.63%	8.75%	10.96%	11.38%
NextEra Energy, Inc.	NEE	3.88%	0.83	12.63%	8.75%	11.13%	11.50%
NorthWestern Corporation	NWE	3.88%	0.87	12.63%	8.75%	11.45%	11.75%
OGE Energy Corporation	OGE	3.88%	0.93	12.63%	8.75%	12.01%	12.17%
Otter Tail Corporation	OTTR	3.88%	0.88	12.63%	8.75%	11.59%	11.85%
Portland General Electric Company	POR	3.88%	0.79	12.63%	8.75%	10.78%	11.24%
Southern Company	SO	3.88%	0.78	12.63%	8.75%	10.72%	11.20%
Xcel Energy Inc.	XEL	3.88%	0.75	12.63%	8.75%	10.44%	10.99%
Mean						10.93%	11.36%
Median						10.78%	11.24%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 42, No. 1, January 1, 2023, at 2.

[2] Bloomberg Professional.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Long-Term Projected Risk Free Rate / Bloomberg Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.90%	0.84	12.63%	8.73%	11.21%	11.56%
Alliant Energy Corporation	LNT	3.90%	0.80	12.63%	8.73%	10.87%	11.31%
Ameren Corporation	AEE	3.90%	0.76	12.63%	8.73%	10.53%	11.05%
American Electric Power Company, Inc.	AEP	3.90%	0.77	12.63%	8.73%	10.65%	11.14%
Avista Corporation	AVA	3.90%	0.76	12.63%	8.73%	10.56%	11.08%
CMS Energy Corporation	CMS	3.90%	0.76	12.63%	8.73%	10.52%	11.05%
Duke Energy Corporation	DUK	3.90%	0.73	12.63%	8.73%	10.25%	10.84%
Entergy Corporation	ETR	3.90%	0.86	12.63%	8.73%	11.43%	11.73%
Evergy, Inc.	EVERG	3.90%	0.79	12.63%	8.73%	10.78%	11.25%
IDACORP, Inc.	IDA	3.90%	0.81	12.63%	8.73%	10.97%	11.38%
NextEra Energy, Inc.	NEE	3.90%	0.83	12.63%	8.73%	11.13%	11.51%
NorthWestern Corporation	NWE	3.90%	0.87	12.63%	8.73%	11.46%	11.75%
OGE Energy Corporation	OGE	3.90%	0.93	12.63%	8.73%	12.01%	12.17%
Otter Tail Corporation	OTTR	3.90%	0.88	12.63%	8.73%	11.59%	11.85%
Portland General Electric Company	POR	3.90%	0.79	12.63%	8.73%	10.79%	11.25%
Southern Company	SO	3.90%	0.78	12.63%	8.73%	10.72%	11.20%
Xcel Energy Inc.	XEL	3.90%	0.75	12.63%	8.73%	10.45%	10.99%
Mean						10.94%	11.36%
Median						10.79%	11.25%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 41, No. 12, December 1, 2022, at 14.

[2] Bloomberg Professional.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Current Risk Free Rate / Long-Term Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.71%	0.79	12.63%	8.92%	10.71%	11.19%
Alliant Energy Corporation	LNT	3.71%	0.75	12.63%	8.92%	10.40%	10.96%
Ameren Corporation	AEE	3.71%	0.73	12.63%	8.92%	10.18%	10.79%
American Electric Power Company, Inc.	AEP	3.71%	0.68	12.63%	8.92%	9.73%	10.46%
Avista Corporation	AVA	3.71%	0.79	12.63%	8.92%	10.71%	11.19%
CMS Energy Corporation	CMS	3.71%	0.69	12.63%	8.92%	9.87%	10.56%
Duke Energy Corporation	DUK	3.71%	0.67	12.63%	8.92%	9.64%	10.39%
Entergy Corporation	ETR	3.71%	0.75	12.63%	8.92%	10.36%	10.93%
Eversource Energy	EVER	3.71%	0.98	12.63%	8.92%	12.41%	12.47%
IDACORP, Inc.	IDA	3.71%	0.73	12.63%	8.92%	10.22%	10.83%
NextEra Energy, Inc.	NEE	3.71%	0.73	12.63%	8.92%	10.22%	10.83%
NorthWestern Corporation	NWE	3.71%	0.75	12.63%	8.92%	10.36%	10.93%
OGE Energy Corporation	OGE	3.71%	0.93	12.63%	8.92%	12.01%	12.16%
Otter Tail Corporation	OTTR	3.71%	0.85	12.63%	8.92%	11.29%	11.63%
Portland General Electric Company	POR	3.71%	0.74	12.63%	8.92%	10.30%	10.89%
Southern Company	SO	3.71%	0.63	12.63%	8.92%	9.31%	10.14%
Xcel Energy Inc.	XEL	3.71%	0.64	12.63%	8.92%	9.41%	10.22%
Mean						10.42%	10.97%
Median						10.30%	10.89%

Notes:

[1] Bloomberg Professional; 30-day average as of December 31, 2022.

[2] PAC/1405.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Near-Term Projected Risk Free Rate / Long-Term Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.88%	0.79	12.63%	8.75%	10.75%	11.22%
Alliant Energy Corporation	LNT	3.88%	0.75	12.63%	8.75%	10.44%	10.99%
Ameren Corporation	AEE	3.88%	0.73	12.63%	8.75%	10.23%	10.83%
American Electric Power Company, Inc.	AEP	3.88%	0.68	12.63%	8.75%	9.79%	10.50%
Avista Corporation	AVA	3.88%	0.79	12.63%	8.75%	10.75%	11.22%
CMS Energy Corporation	CMS	3.88%	0.69	12.63%	8.75%	9.92%	10.60%
Duke Energy Corporation	DUK	3.88%	0.67	12.63%	8.75%	9.70%	10.43%
Entergy Corporation	ETR	3.88%	0.75	12.63%	8.75%	10.40%	10.96%
Evergy, Inc.	EVRG	3.88%	0.98	12.63%	8.75%	12.41%	12.47%
IDACORP, Inc.	IDA	3.88%	0.73	12.63%	8.75%	10.27%	10.86%
NextEra Energy, Inc.	NEE	3.88%	0.73	12.63%	8.75%	10.27%	10.86%
NorthWestern Corporation	NWE	3.88%	0.75	12.63%	8.75%	10.40%	10.96%
OGE Energy Corporation	OGE	3.88%	0.93	12.63%	8.75%	12.02%	12.17%
Otter Tail Corporation	OTTR	3.88%	0.85	12.63%	8.75%	11.32%	11.65%
Portland General Electric Company	POR	3.88%	0.74	12.63%	8.75%	10.35%	10.92%
Southern Company	SO	3.88%	0.63	12.63%	8.75%	9.37%	10.19%
Xcel Energy Inc.	XEL	3.88%	0.64	12.63%	8.75%	9.47%	10.26%
Mean						10.46%	11.01%
Median						10.35%	10.92%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 42, No. 1, January 1, 2023, at 2.

[2] PAC/1405.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Exhibit 1403/CAPITAL ASSET PRICING MODEL
PacifiCorp Proxy Group

Long-Term Projected Risk Free Rate / Long-Term Beta

$$K = R_f + \beta (R_m - R_f)$$

$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
		Treasury					
Company	Ticker	Bond Yield	Beta	Market Return	Mkt Risk Premium	CAPM	ECAPM
ALLETE, Inc.	ALE	3.90%	0.79	12.63%	8.73%	10.76%	11.22%
Alliant Energy Corporation	LNT	3.90%	0.75	12.63%	8.73%	10.45%	11.00%
Ameren Corporation	AEE	3.90%	0.73	12.63%	8.73%	10.23%	10.83%
American Electric Power Company, Inc.	AEP	3.90%	0.68	12.63%	8.73%	9.79%	10.50%
Avista Corporation	AVA	3.90%	0.79	12.63%	8.73%	10.76%	11.22%
CMS Energy Corporation	CMS	3.90%	0.69	12.63%	8.73%	9.93%	10.60%
Duke Energy Corporation	DUK	3.90%	0.67	12.63%	8.73%	9.71%	10.44%
Entergy Corporation	ETR	3.90%	0.75	12.63%	8.73%	10.41%	10.96%
Evergy, Inc.	EVERG	3.90%	0.98	12.63%	8.73%	12.41%	12.47%
IDACORP, Inc.	IDA	3.90%	0.73	12.63%	8.73%	10.28%	10.86%
NextEra Energy, Inc.	NEE	3.90%	0.73	12.63%	8.73%	10.28%	10.86%
NorthWestern Corporation	NWE	3.90%	0.75	12.63%	8.73%	10.41%	10.96%
OGE Energy Corporation	OGE	3.90%	0.93	12.63%	8.73%	12.02%	12.17%
Otter Tail Corporation	OTTR	3.90%	0.85	12.63%	8.73%	11.32%	11.65%
Portland General Electric Company	POR	3.90%	0.74	12.63%	8.73%	10.35%	10.92%
Southern Company	SO	3.90%	0.63	12.63%	8.73%	9.38%	10.20%
Xcel Energy Inc.	XEL	3.90%	0.64	12.63%	8.73%	9.48%	10.27%
Mean						10.47%	11.01%
Median						10.35%	10.92%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 41, No. 12, December 1, 2022, at 2

[2] PAC/1405.

[3] PAC/1404.

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

Application No. 22-05-006
Exhibit PAC/1404
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Market Return Calculation

February 2023

Exhibit 1404/MARKET RETURN CALCULATION

[1] Estimated Weighted Average Dividend Yield	1.81%
[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outstg	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
LyondellBasell Industries NV	LYB	325.62	83.03	27,037	0.10%	5.73%	0.01%	3.50%	0.00%
Signature Bank/New York NY	SBNY	62.93	115.22	7,250	0.03%	1.94%	0.00%	16.50%	0.00%
American Express Co	AXP	747.23	147.75	110,404	0.41%	1.41%	0.01%	10.00%	0.04%
Verizon Communications Inc	VZ	4,199.82	39.40	165,473	0.61%	6.62%	0.04%	2.50%	0.02%
Broadcom Inc	AVGO	417.89	559.13	233,653		3.29%		30.00%	
Boeing Co/The	BA	595.98	190.49	113,529					
Caterpillar Inc	CAT	520.41	239.56	124,669	0.46%	2.00%	0.01%	11.00%	0.05%
JPMorgan Chase & Co	JPM	2,933.21	134.10	393,343	1.45%	2.98%	0.04%	5.00%	0.07%
Chevron Corp	CVX	1,933.64	179.49	347,069		3.16%		44.00%	
Coca-Cola Co/The	KO	4,324.51	63.61	275,082	1.01%	2.77%	0.03%	7.50%	0.08%
AbbVie Inc	ABBV	1,768.48	161.61	285,804	1.05%	3.66%	0.04%	4.50%	0.05%
Walt Disney Co/The	DIS	1,823.59	86.88	158,434				30.50%	
FleetCor Technologies Inc	FLT	73.75	183.68	13,547	0.05%			10.50%	0.01%
Extra Space Storage Inc	EXR	133.92	147.18	19,711	0.07%	4.08%	0.00%	4.00%	0.00%
Exxon Mobil Corp	XOM	4,118.29	110.30	454,248		3.30%			
Phillips 66	PSX	472.63	104.08	49,192		3.73%		85.00%	
General Electric Co	GE	1,092.67	65.38	71,444		0.49%		21.00%	
HP Inc	HPQ	982.15	26.87	26,390	0.10%	3.91%	0.00%	12.50%	0.01%
Home Depot Inc/The	HD	1,019.19	315.86	321,920	1.18%	2.41%	0.03%	9.00%	0.11%
Monolithic Power Systems Inc	MPWR	46.94	353.61	16,599		0.85%		23.50%	
International Business Machines Corp	IBM	904.13	140.89	127,382	0.47%	4.68%	0.02%	3.00%	0.01%
Johnson & Johnson	JNJ	2,614.48	176.65	461,849	1.70%	2.56%	0.04%	8.00%	0.14%
McDonald's Corp	MCD	732.42	263.53	193,016	0.71%	2.31%	0.02%	10.50%	0.07%
Merck & Co Inc	MRK	2,535.40	110.95	281,302	1.03%	2.63%	0.03%	8.00%	0.08%
3M Co	MMM	552.74	119.92	66,285	0.24%	4.97%	0.01%	7.50%	0.02%
American Water Works Co Inc	AWK	181.83	152.42	27,714	0.10%	1.72%	0.00%	3.00%	0.00%
Bank of America Corp	BAC	8,022.43	33.12	265,703	0.98%	2.66%	0.03%	8.50%	0.08%
Pfizer Inc	PFE	5,613.32	51.24	287,626	1.06%	3.20%	0.03%	6.50%	0.07%
Procter & Gamble Co/The	PG	2,369.70	151.56	359,151	1.32%	2.41%	0.03%	6.50%	0.09%
AT&T Inc	T	7,127.00	18.41	131,208	0.48%	6.03%	0.03%	1.00%	0.00%
Travelers Cos Inc/The	TRV	234.35	187.49	43,938	0.16%	1.98%	0.00%	6.50%	0.01%
Raytheon Technologies Corp	RTX	1,470.06	100.92	148,359	0.55%	2.18%	0.01%	7.00%	0.04%
Analog Devices Inc	ADI	509.30	164.03	83,540	0.31%	1.85%	0.01%	14.00%	0.04%
Walmart Inc	WMT	2,696.80	141.79	382,379	1.41%	1.58%	0.02%	7.50%	0.11%
Cisco Systems Inc	CSCO	4,108.10	47.26	194,159	0.71%	3.22%	0.02%	9.00%	0.06%
Intel Corp	INTC	4,127.00	26.43	109,077		5.52%			
General Motors Co	GM	1,420.70	33.64	47,792	0.18%	1.07%	0.00%	10.00%	0.02%
Microsoft Corp	MSFT	7,454.47	239.82	1,787,732	6.57%	1.13%	0.07%	16.50%	1.08%
Dollar General Corp	DG	223.58	246.25	55,055	0.20%	0.89%	0.00%	10.00%	0.02%
Cigna Corp	CI	305.74	331.34	101,304	0.37%	1.35%	0.01%	10.00%	0.04%
Kinder Morgan Inc	KMI	2,247.74	18.08	40,639	0.15%	6.14%	0.01%	19.00%	0.03%
Citigroup Inc	C	1,936.85	45.23	87,604	0.32%	4.51%	0.01%	3.50%	0.01%
American International Group Inc	AIG	742.98	63.24	46,986	0.17%	2.02%	0.00%	6.50%	0.01%
Altria Group Inc	MO	1,792.17	45.71	81,920	0.30%	8.23%	0.02%	5.50%	0.02%
HCA Healthcare Inc	HCA	282.72	239.96	67,841	0.25%	0.93%	0.00%	12.50%	0.03%
International Paper Co	IP	355.67	34.63	12,317	0.05%	5.34%	0.00%	13.50%	0.01%
Hewlett Packard Enterprise Co	HPE	1,281.82	15.96	20,458	0.08%	3.01%	0.00%	7.50%	0.01%
Abbott Laboratories	ABT	1,743.57	109.79	191,427	0.70%	1.86%	0.01%	7.00%	0.05%
Aflac Inc	AFL	621.79	71.94	44,732	0.16%	2.34%	0.00%	9.00%	0.01%
Air Products and Chemicals Inc	APD	221.99	308.26	68,430	0.25%	2.10%	0.01%	11.00%	0.03%
Royal Caribbean Cruises Ltd	RCL	255.18	49.43	12,614					
Hess Corp	HES	308.31	141.82	43,724		1.06%			
Archer-Daniels-Midland Co	ADM	549.33	92.85	51,006	0.19%	1.72%	0.00%	13.00%	0.02%
Automatic Data Processing Inc	ADP	414.83	238.86	99,086	0.36%	2.09%	0.01%	10.00%	0.04%
Verisk Analytics Inc	VRSK	156.39	176.42	27,590	0.10%	0.70%	0.00%	13.00%	0.01%
AutoZone Inc	AZO	18.77	2,466.18	46,280	0.17%			14.50%	0.02%
Avery Dennison Corp	AVY	80.97	181.00	14,655	0.05%	1.66%	0.00%	12.00%	0.01%
Enphase Energy Inc	ENPH	135.92	264.96	36,014				26.50%	
MSCI Inc	MSCI	79.96	465.17	37,194	0.14%	1.07%	0.00%	14.50%	0.02%
Ball Corp	BALL	313.92	51.14	16,054		1.56%		21.50%	
Ceridian HCM Holding Inc	CDAY	153.60	64.15	9,853					
Carrier Global Corp	CARR	836.26	41.25	34,496		1.79%			
Bank of New York Mellon Corp/The	BK	808.28	45.52	36,793	0.14%	3.25%	0.00%	6.00%	0.01%
Otis Worldwide Corp	OTIS	416.59	78.31	32,623		1.48%			
Baxter International Inc	BAX	504.12	50.97	25,695	0.09%	2.28%	0.00%	8.00%	0.01%
Becton Dickinson and Co	BDX	284.27	254.30	72,289	0.27%	1.43%	0.00%	4.50%	0.01%
Berkshire Hathaway Inc	BRK/B	1,301.98	308.90	402,182	1.48%			6.00%	0.09%
Best Buy Co Inc	BBY	221.26	80.21	17,748	0.07%	4.39%	0.00%	4.00%	0.00%
Boston Scientific Corp	BSX	1,432.31	46.27	66,273	0.24%			17.00%	0.04%

Exhibit 1404/MARKET RETURN CALCULATION

[1] Estimated Weighted Average Dividend Yield	1.81%
[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outstg	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Bristol-Myers Squibb Co	BMJ	2,126.16	71.95	152,977		3.17%			
Brown-Forman Corp	BF/B	309.95	65.68	20,358	0.07%	1.25%	0.00%	14.00%	0.01%
Coterra Energy Inc	CTRA	788.47	24.57	19,373		11.07%			
Campbell Soup Co	CPB	299.47	56.38	16,883	0.06%	2.63%	0.00%	5.00%	0.00%
Hilton Worldwide Holdings Inc	HLT	270.46	126.36	34,175		0.47%			
Carnival Corp	CCL	1,112.71	8.06	8,968					
Qorvo Inc	QRVO	101.39	90.64	9,190	0.03%			14.50%	0.00%
Lumen Technologies Inc	LUMN	1,034.58	5.22	5,401	0.02%			1.50%	0.00%
UDR Inc	UDR	325.54	38.73	12,608	0.05%	3.92%	0.00%	10.50%	0.00%
Clorox Co/The	CLX	123.39	140.33	17,315	0.06%	3.36%	0.00%	7.50%	0.00%
Paycom Software Inc	PAYC	60.02	310.31	18,625				21.00%	
CMS Energy Corp	CMS	290.25	63.33	18,382	0.07%	2.91%	0.00%	6.50%	0.00%
Newell Brands Inc	NWL	413.60	13.08	5,410		7.03%			
Colgate-Palmolive Co	CL	835.21	78.79	65,807	0.24%	2.39%	0.01%	6.50%	0.02%
EPAM Systems Inc	EPAM	57.51	327.74	18,849				20.50%	
Comerica Inc	CMA	130.95	66.85	8,754	0.03%	4.07%	0.00%	9.00%	0.00%
Conagra Brands Inc	CAG	479.26	38.70	18,547	0.07%	3.41%	0.00%	4.00%	0.00%
Consolidated Edison Inc	ED	354.86	95.31	33,822	0.12%	3.32%	0.00%	4.00%	0.00%
Corning Inc	GLW	845.81	31.94	27,015	0.10%	3.38%	0.00%	17.50%	0.02%
Cummins Inc	CMI	141.02	242.29	34,168	0.13%	2.59%	0.00%	8.50%	0.01%
Caesars Entertainment Inc	CZR	214.57	41.60	8,926					
Danaher Corp	DHR	727.96	265.42	193,216	0.71%	0.38%	0.00%	16.00%	0.11%
Target Corp	TGT	460.31	149.04	68,605	0.25%	2.90%	0.01%	12.00%	0.03%
Deere & Co	DE	298.24	428.76	127,872	0.47%	1.12%	0.01%	16.50%	0.08%
Dominion Energy Inc	D	833.28	61.32	51,096	0.19%	4.35%	0.01%	5.50%	0.01%
Dover Corp	DOV	140.35	135.41	19,005	0.07%	1.49%	0.00%	9.00%	0.01%
Alliant Energy Corp	LNT	251.02	55.21	13,859	0.05%	3.10%	0.00%	6.00%	0.00%
Steel Dynamics Inc	STLD	175.57	97.70	17,153	0.06%	1.39%	0.00%	2.00%	0.00%
Duke Energy Corp	DUK	770.00	102.99	79,302	0.29%	3.90%	0.01%	5.00%	0.01%
Regency Centers Corp	REG	171.12	62.50	10,695	0.04%	4.16%	0.00%	12.50%	0.00%
Eaton Corp PLC	ETN	397.70	156.95	62,419	0.23%	2.06%	0.00%	12.00%	0.03%
Ecolab Inc	ECL	284.83	145.56	41,460	0.15%	1.46%	0.00%	10.50%	0.02%
PerkinElmer Inc	PKI	126.32	140.22	17,712	0.07%	0.20%	0.00%	4.00%	0.00%
Emerson Electric Co	EMR	582.30	96.06	55,936	0.21%	2.17%	0.00%	9.50%	0.02%
EOG Resources Inc	EOG	587.39	129.52	76,079		2.55%		26.00%	
Aon PLC	AON	206.85	300.14	62,085	0.23%	0.75%	0.00%	7.50%	0.02%
Entergy Corp	ETR	203.48	112.50	22,892	0.08%	3.80%	0.00%	4.00%	0.00%
Equifax Inc	EFX	122.44	194.36	23,798	0.09%	0.80%	0.00%	7.00%	0.01%
EQT Corp	EQT	367.05	33.83	12,417		1.77%			
IQVIA Holdings Inc	IQV	185.74	204.89	38,056	0.14%			14.50%	0.02%
Gartner Inc	IT	79.02	336.14	26,563	0.10%			18.00%	0.02%
FedEx Corp	FDX	252.40	173.20	43,715	0.16%	2.66%	0.00%	13.00%	0.02%
FMC Corp	FMC	125.97	124.80	15,721	0.06%	1.86%	0.00%	11.00%	0.01%
Brown & Brown Inc	BRO	283.22	56.97	16,135	0.06%	0.81%	0.00%	8.00%	0.00%
Ford Motor Co	F	3,949.64	11.63	45,934		5.16%		33.50%	
NextEra Energy Inc	NEE	1,987.16	83.60	166,127	0.61%	2.03%	0.01%	10.50%	0.06%
Franklin Resources Inc	BEN	500.26	26.38	13,197	0.05%	4.55%	0.00%	4.00%	0.00%
Garmin Ltd	GRMN	191.66	92.29	17,689	0.07%	3.16%	0.00%	6.00%	0.00%
Freeport-McMoRan Inc	FCX	1,429.33	38.00	54,314		1.58%		27.50%	
Dexcom Inc	DXCM	386.26	113.24	43,740					
General Dynamics Corp	GD	274.55	248.11	68,118	0.25%	2.03%	0.01%	9.00%	0.02%
General Mills Inc	GIS	589.61	83.85	49,439	0.18%	2.58%	0.00%	3.50%	0.01%
Genuine Parts Co	GPC	141.16	173.51	24,493	0.09%	2.06%	0.00%	9.00%	0.01%
Atmos Energy Corp	ATO	141.02	112.07	15,804	0.06%	2.64%	0.00%	7.50%	0.00%
WW Grainger Inc	GWW	50.53	556.25	28,107	0.10%	1.24%	0.00%	11.00%	0.01%
Halliburton Co	HAL	908.05	39.35	35,732		1.22%		31.00%	
L3Harris Technologies Inc	LHX	190.40	208.21	39,644	0.15%	2.15%	0.00%	18.00%	0.03%
Healthpeak Properties Inc	PEAK	537.54	25.07	13,476	0.05%	4.79%	0.00%	17.00%	0.01%
Catalent Inc	CTLT	179.96	45.01	8,100				21.00%	
Fortive Corp	FTV	353.81	64.25	22,732	0.08%	0.44%	0.00%	12.00%	0.01%
Hershey Co/The	HSY	146.97	231.57	34,034	0.13%	1.79%	0.00%	9.00%	0.01%
Synchrony Financial	SYF	450.54	32.86	14,805	0.05%	2.80%	0.00%	9.50%	0.01%
Hormel Foods Corp	HRL	546.42	45.55	24,890	0.09%	2.41%	0.00%	6.50%	0.01%
Arthur J Gallagher & Co	AJG	210.84	188.54	39,752	0.15%	1.08%	0.00%	18.50%	0.03%
Mondelez International Inc	MDLZ	1,365.62	66.65	91,019	0.33%	2.31%	0.01%	9.50%	0.03%
CenterPoint Energy Inc	CNP	629.43	29.99	18,877	0.07%	2.53%	0.00%	6.50%	0.00%
Humana Inc	HUM	126.60	512.19	64,843	0.24%	0.62%	0.00%	11.00%	0.03%
Willis Towers Watson PLC	WTW	108.24	244.58	26,473	0.10%	1.34%	0.00%	8.50%	0.01%
Illinois Tool Works Inc	ITW	307.19	220.30	67,673	0.25%	2.38%	0.01%	11.00%	0.03%

Exhibit 1404/MARKET RETURN CALCULATION

[1] Estimated Weighted Average Dividend Yield	1.81%
[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outstg	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
CDW Corp/DE	CDW	135.39	178.58	24,178	0.09%	1.32%	0.00%	8.50%	0.01%
Trane Technologies PLC	TT	230.31	168.09	38,712		1.59%			
Interpublic Group of Cos Inc/The	IPG	388.53	33.31	12,942	0.05%	3.48%	0.00%	10.00%	0.00%
International Flavors & Fragrances Inc	IFF	254.96	104.84	26,730	0.10%	3.09%	0.00%	7.50%	0.01%
Generac Holdings Inc	GNRC	63.36	100.66	6,377				23.50%	
NXP Semiconductors NV	NXPI	259.14	158.03	40,951	0.15%	2.14%	0.00%	12.00%	0.02%
Kellogg Co	K	341.28	71.24	24,313	0.09%	3.31%	0.00%	3.50%	0.00%
Broadridge Financial Solutions Inc	BR	117.66	134.13	15,781	0.06%	2.16%	0.00%	9.50%	0.01%
Kimberly-Clark Corp	KMB	337.49	135.75	45,815	0.17%	3.42%	0.01%	5.50%	0.01%
Kimco Realty Corp	KIM	618.46	21.18	13,099	0.05%	4.34%	0.00%	8.50%	0.00%
Oracle Corp	ORCL	2,696.25	81.74	220,392	0.81%	1.57%	0.01%	10.00%	0.08%
Kroger Co/The	KR	715.82	44.58	31,911	0.12%	2.33%	0.00%	6.50%	0.01%
Lennar Corp	LEN	254.77	90.50	23,056	0.08%	1.66%	0.00%	8.50%	0.01%
Eli Lilly & Co	LLY	950.18	365.84	347,613	1.28%	1.24%	0.02%	11.50%	0.15%
Bath & Body Works Inc	BBWI	228.42	42.14	9,625		1.90%		26.50%	
Charter Communications Inc	CHTR	155.67	339.10	52,788				23.00%	
Lincoln National Corp	LNC	169.22	30.72	5,198	0.02%	5.86%	0.00%	11.50%	0.00%
Loews Corp	L	237.43	58.33	13,849	0.05%	0.43%	0.00%	18.50%	0.01%
Lowe's Cos Inc	LOW	604.70	199.24	120,481	0.44%	2.11%	0.01%	12.50%	0.06%
IDEX Corp	IEX	75.42	228.33	17,221	0.06%	1.05%	0.00%	11.00%	0.01%
Marsh & McLennan Cos Inc	MMC	496.01	165.48	82,080	0.30%	1.43%	0.00%	11.00%	0.03%
Masco Corp	MAS	225.53	46.67	10,525	0.04%	2.40%	0.00%	8.00%	0.00%
S&P Global Inc	SPGI	325.80	334.94	109,123	0.40%	1.02%	0.00%	9.50%	0.04%
Medtronic PLC	MDT	1,330.18	77.72	103,382	0.38%	3.50%	0.01%	7.50%	0.03%
Viatris Inc	VTRS	1,212.69	11.13	13,497		4.31%			
CVS Health Corp	CVS	1,313.97	93.19	122,449	0.45%	2.60%	0.01%	6.00%	0.03%
DuPont de Nemours Inc	DD	496.79	68.63	34,095	0.13%	1.92%	0.00%	9.50%	0.01%
Micron Technology Inc	MU	1,091.18	49.98	54,537	0.20%	0.92%	0.00%	13.00%	0.03%
Motorola Solutions Inc	MSI	167.20	257.71	43,090	0.16%	1.37%	0.00%	10.50%	0.02%
Cboe Global Markets Inc	CBOE	106.08	125.47	13,310	0.05%	1.59%	0.00%	10.00%	0.00%
Laboratory Corp of America Holdings	LH	88.60	235.48	20,864	0.08%	1.22%	0.00%	1.50%	0.00%
Newmont Corp	NEM	793.74	47.20	37,464	0.14%	4.66%	0.01%	9.50%	0.01%
NIKE Inc	NKE	1,259.69	117.01	147,396		1.16%		24.00%	
NiSource Inc	NI	406.13	27.42	11,136	0.04%	3.43%	0.00%	9.50%	0.00%
Norfolk Southern Corp	NSC	231.51	246.42	57,050	0.21%	2.01%	0.00%	10.00%	0.02%
Principal Financial Group Inc	PFG	244.68	83.92	20,534	0.08%	3.05%	0.00%	6.00%	0.00%
Eversource Energy	ES	348.31	83.84	29,202	0.11%	3.04%	0.00%	6.50%	0.01%
Northrop Grumman Corp	NOC	153.91	545.61	83,976	0.31%	1.27%	0.00%	6.50%	0.02%
Wells Fargo & Co	WFC	3,810.49	41.29	157,335	0.58%	2.91%	0.02%	12.00%	0.07%
Nucor Corp	NUE	256.54	131.81	33,815	0.12%	1.55%	0.00%	2.50%	0.00%
Occidental Petroleum Corp	OXY	908.91	62.99	57,252		0.83%			
Omnicom Group Inc	OMC	203.92	81.57	16,633	0.06%	3.43%	0.00%	6.50%	0.00%
ONEOK Inc	OKE	446.95	65.70	29,365	0.11%	5.69%	0.01%	11.50%	0.01%
Raymond James Financial Inc	RJF	215.06	106.85	22,980	0.08%	1.57%	0.00%	15.00%	0.01%
PG&E Corp	PCG	1,987.70	16.26	32,320	0.12%			7.50%	0.01%
Parker-Hannifin Corp	PH	128.41	291.00	37,366	0.14%	1.83%	0.00%	15.50%	0.02%
Rollins Inc	ROL	492.47	36.54	17,995	0.07%	1.42%	0.00%	10.50%	0.01%
PPL Corp	PPL	736.32	29.22	21,515	0.08%	3.08%	0.00%	3.00%	0.00%
ConocoPhillips	COP	1,246.07	118.00	147,036	0.54%	0.59%	0.00%	20.00%	0.11%
PulteGroup Inc	PHM	227.82	45.53	10,373	0.04%	1.41%	0.00%	7.00%	0.00%
Pinnacle West Capital Corp	PNW	113.14	76.04	8,603	0.03%	4.55%	0.00%	0.50%	0.00%
PNC Financial Services Group Inc/The	PNC	403.32	157.94	63,700	0.23%	3.80%	0.01%	12.00%	0.03%
PPG Industries Inc	PPG	235.03	125.74	29,552	0.11%	1.97%	0.00%	4.00%	0.00%
Progressive Corp/The	PGR	585.00	129.71	75,880	0.28%	0.31%	0.00%	6.50%	0.02%
Public Service Enterprise Group Inc	PEG	498.95	61.27	30,571	0.11%	3.53%	0.00%	4.50%	0.01%
Robert Half International Inc	RHI	108.50	73.83	8,010	0.03%	2.33%	0.00%	10.50%	0.00%
Edison International	EIX	381.88	63.62	24,295	0.09%	4.64%	0.00%	16.00%	0.01%
Schlumberger Ltd	SLB	1,417.99	53.46	75,806		1.31%		23.50%	
Charles Schwab Corp/The	SCHW	1,815.85	83.26	151,187	0.56%	1.06%	0.01%	9.00%	0.05%
Sherwin-Williams Co/The	SHW	259.14	237.33	61,502	0.23%	1.01%	0.00%	11.50%	0.03%
West Pharmaceutical Services Inc	WST	74.03	235.35	17,424	0.06%	0.32%	0.00%	17.00%	0.01%
J M Smucker Co/The	SJM	106.64	158.46	16,898	0.06%	2.57%	0.00%	4.00%	0.00%
Snap-on Inc	SNA	53.16	228.49	12,145	0.04%	2.84%	0.00%	4.50%	0.00%
AMETEK Inc	AME	229.65	139.72	32,087	0.12%	0.63%	0.00%	10.00%	0.01%
Southern Co/The	SO	1,088.67	71.41	77,742	0.29%	3.81%	0.01%	6.50%	0.02%
Truist Financial Corp	TFC	1,326.77	43.03	57,091	0.21%	4.83%	0.01%	5.50%	0.01%
Southwest Airlines Co	LUV	593.75	33.67	19,992		2.14%			
W R Berkley Corp	WRB	265.48	72.57	19,266	0.07%	0.55%	0.00%	15.50%	0.01%
Stanley Black & Decker Inc	SWK	147.94	75.12	11,113	0.04%	4.26%	0.00%	6.00%	0.00%

Exhibit 1404/MARKET RETURN CALCULATION

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[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outstg	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Public Storage	PSA	175.64	280.19	49,212	0.18%	2.86%	0.01%	8.00%	0.01%
Arista Networks Inc	ANET	305.57	121.35	37,081	0.14%			10.00%	0.01%
Sysco Corp	SYU	506.77	76.45	38,742	0.14%	2.56%	0.00%	16.50%	0.02%
Corteva Inc	CTVA	718.60	58.78	42,239	0.16%	1.02%	0.00%	16.50%	0.03%
Texas Instruments Inc	TXN	907.57	165.22	149,949	0.55%	3.00%	0.02%	7.50%	0.04%
Textron Inc	TXT	208.77	70.80	14,781	0.05%	0.11%	0.00%	10.50%	0.01%
Thermo Fisher Scientific Inc	TMO	392.20	550.69	215,978	0.79%	0.22%	0.00%	11.00%	0.09%
TJX Cos Inc/The	TJX	1,155.50	79.60	91,978	0.34%	1.48%	0.01%	17.00%	0.06%
Globe Life Inc	GL	97.27	120.55	11,726	0.04%	0.69%	0.00%	8.50%	0.00%
Johnson Controls International plc	JCI	686.70	64.00	43,949	0.16%	2.19%	0.00%	12.50%	0.02%
Ulta Beauty Inc	ULTA	50.88	469.07	23,867	0.09%			15.50%	0.01%
Union Pacific Corp	UNP	614.80	207.07	127,307	0.47%	2.51%	0.01%	9.50%	0.04%
Keysight Technologies Inc	KEYS	178.80	171.07	30,586	0.11%			13.00%	0.01%
UnitedHealth Group Inc	UNH	934.35	530.18	495,373	1.82%	1.24%	0.02%	12.00%	0.22%
Marathon Oil Corp	MRO	635.07	27.07	17,191		1.33%			
Bio-Rad Laboratories Inc	BIO	24.75	420.49	10,407	0.04%			11.50%	0.00%
Ventas Inc	VTR	399.72	45.05	18,007	0.07%	4.00%	0.00%	10.50%	0.01%
VF Corp	VFC	388.57	27.61	10,728	0.04%	7.39%	0.00%	9.00%	0.00%
Vornado Realty Trust	VNO	191.82	20.81	3,992		10.19%		-20.50%	
Vulcan Materials Co	VMC	132.91	175.11	23,273	0.09%	0.91%	0.00%	8.50%	0.01%
Weyerhaeuser Co	WY	735.92	31.00	22,813	0.08%	2.32%	0.00%	7.00%	0.01%
Whirlpool Corp	WHR	54.48	141.46	7,706	0.03%	4.95%	0.00%	6.00%	0.00%
Williams Cos Inc/The	WMB	1,218.34	32.90	40,083	0.15%	5.17%	0.01%	12.00%	0.02%
Constellation Energy Corp	CEG	326.66	86.21	28,162		0.65%			
WEC Energy Group Inc	WEC	315.44	93.76	29,575	0.11%	3.33%	0.00%	6.00%	0.01%
Adobe Inc	ADBE	464.90	336.53	156,453	0.58%			14.50%	0.08%
AES Corp/The	AES	667.95	28.76	19,210	0.07%	2.31%	0.00%	14.00%	0.01%
Amgen Inc	AMGN	533.58	262.64	140,139	0.52%	3.24%	0.02%	5.50%	0.03%
Apple Inc	AAPL	15,908.12	129.93	2,066,942	7.60%	0.71%	0.05%	13.50%	1.03%
Autodesk Inc	ADSK	215.77	186.87	40,320	0.15%			14.00%	0.02%
Cintas Corp	CTAS	101.60	451.62	45,885	0.17%	1.02%	0.00%	14.00%	0.02%
Comcast Corp	CMCSA	4,313.96	34.70	149,695	0.55%	3.11%	0.02%	9.00%	0.05%
Molson Coors Beverage Co	TAP	200.15	51.52	10,311		2.95%		49.50%	
KLA Corp	KLAC	141.72	377.03	53,432	0.20%	1.38%	0.00%	20.00%	0.04%
Marriott International Inc/MD	MAR	316.54	148.89	47,130	0.17%	1.07%	0.00%	17.50%	0.03%
McCormick & Co Inc/MD	MKC	250.60	82.89	20,772	0.08%	1.88%	0.00%	5.00%	0.00%
PACCAR Inc	PCAR	347.77	98.97	34,419	0.13%	1.01%	0.00%	5.00%	0.01%
Costco Wholesale Corp	COST	443.73	456.50	202,562	0.74%	0.79%	0.01%	10.50%	0.08%
First Republic Bank/CA	FRC	182.93	121.89	22,297	0.08%	0.89%	0.00%	11.50%	0.01%
Stryker Corp	SYK	378.43	244.49	92,522	0.34%	1.23%	0.00%	8.50%	0.03%
Tyson Foods Inc	TSN	287.82	62.25	17,917	0.07%	3.08%	0.00%	6.00%	0.00%
Lamb Weston Holdings Inc	LW	143.83	89.36	12,853	0.05%	1.25%	0.00%	11.50%	0.01%
Applied Materials Inc	AMAT	844.14	97.38	82,202	0.30%	1.07%	0.00%	13.50%	0.04%
American Airlines Group Inc	AAL	649.90	12.72	8,267					
Cardinal Health Inc	CAH	262.13	76.87	20,150	0.07%	2.58%	0.00%	5.00%	0.00%
Cincinnati Financial Corp	CINF	157.18	102.39	16,094	0.06%	2.70%	0.00%	9.00%	0.01%
Paramount Global	PARA	608.47	16.88	10,271	0.04%	5.69%	0.00%	4.50%	0.00%
DR Horton Inc	DHI	344.55	89.14	30,713	0.11%	1.12%	0.00%	0.50%	0.00%
Electronic Arts Inc	EA	276.08	122.18	33,731	0.12%	0.62%	0.00%	11.50%	0.01%
Expeditors International of Washington Inc	EXPD	159.14	103.92	16,537	0.06%	1.29%	0.00%	10.00%	0.01%
Fastenal Co	FAST	572.76	47.32	27,103	0.10%	2.62%	0.00%	8.50%	0.01%
M&T Bank Corp	MTB	172.61	145.06	25,039	0.09%	3.31%	0.00%	9.00%	0.01%
Xcel Energy Inc	XEL	547.25	70.11	38,368	0.14%	2.78%	0.00%	6.00%	0.01%
Fiserv Inc	FISV	635.03	101.07	64,182	0.24%			11.00%	0.03%
Fifth Third Bancorp	FITB	686.40	32.81	22,521	0.08%	4.02%	0.00%	9.50%	0.01%
Gilead Sciences Inc	GILD	1,254.24	85.85	107,677	0.40%	3.40%	0.01%	12.00%	0.05%
Hasbro Inc	HAS	138.11	61.01	8,426	0.03%	4.59%	0.00%	9.00%	0.00%
Huntington Bancshares Inc/OH	HBAN	1,442.73	14.10	20,343	0.07%	4.40%	0.00%	12.50%	0.01%
Welltower Inc	WELL	472.52	65.55	30,974	0.11%	3.72%	0.00%	2.50%	0.00%
Biogen Inc	BIIB	144.00	276.92	39,877				-10.50%	
Northern Trust Corp	NTRS	208.42	88.49	18,443	0.07%	3.39%	0.00%	8.00%	0.01%
Packaging Corp of America	PKG	92.53	127.91	11,836	0.04%	3.91%	0.00%	11.00%	0.00%
Paycom Inc	PAYX	360.47	115.56	41,656	0.15%	2.73%	0.00%	10.00%	0.02%
QUALCOMM Inc	QCOM	1,121.00	109.94	123,243	0.45%	2.73%	0.01%	18.00%	0.08%
Roper Technologies Inc	ROP	106.05	432.09	45,824	0.17%	0.63%	0.00%	3.50%	0.01%
Ross Stores Inc	ROST	344.37	116.07	39,971	0.15%	1.07%	0.00%	14.00%	0.02%
IDEXX Laboratories Inc	IDXX	82.82	407.96	33,786	0.12%			12.00%	0.01%
Starbucks Corp	SBUX	1,147.80	99.20	113,862	0.42%	2.14%	0.01%	16.00%	0.07%
KeyCorp	KEY	932.97	17.42	16,252	0.06%	4.71%	0.00%	7.50%	0.00%

Exhibit 1404/MARKET RETURN CALCULATION

[1] Estimated Weighted Average Dividend Yield	1.81%
[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outstg	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Fox Corp	FOXA	302.48	30.37	9,186	0.03%	1.65%	0.00%	11.00%	0.00%
Fox Corp	FOX	240.22	28.45	6,834		1.76%			
State Street Corp	STT	366.94	77.57	28,464	0.10%	3.25%	0.00%	8.50%	0.01%
Norwegian Cruise Line Holdings Ltd	NCLH	421.40	12.24	5,158					
US Bancorp	USB	1,530.24	43.61	66,734	0.25%	4.40%	0.01%	6.00%	0.01%
A O Smith Corp	AOS	126.87	57.24	7,262	0.03%	2.10%	0.00%	11.50%	0.00%
Gen Digital Inc	GEN	651.36	21.43	13,959	0.05%	2.33%	0.00%	11.50%	0.01%
T Rowe Price Group Inc	TROW	223.47	109.06	24,371	0.09%	4.40%	0.00%	8.00%	0.01%
Waste Management Inc	WM	410.48	156.88	64,396	0.24%	1.66%	0.00%	6.50%	0.02%
Constellation Brands Inc	STZ	184.47	231.75	42,750	0.16%	1.38%	0.00%	5.00%	0.01%
DENTSPLY SIRONA Inc	XRAY	214.91	31.84	6,843	0.03%	1.57%	0.00%	12.00%	0.00%
Zions Bancorp NA	ZION	149.62	49.16	7,355	0.03%	3.34%	0.00%	6.50%	0.00%
Alaska Air Group Inc	ALK	126.84	42.94	5,446					
Invesco Ltd	IVZ	454.79	17.99	8,182	0.03%	4.17%	0.00%	10.00%	0.00%
Linde PLC	LIN	492.58	326.18	160,670	0.59%	1.43%	0.01%	12.00%	0.07%
Intuit Inc	INTU	280.93	389.22	109,342	0.40%	0.80%	0.00%	17.50%	0.07%
Morgan Stanley	MS	1,690.11	85.02	143,693	0.53%	3.65%	0.02%	8.50%	0.04%
Microchip Technology Inc	MCHP	550.01	70.25	38,638	0.14%	1.87%	0.00%	10.00%	0.01%
Chubb Ltd	CB	415.05	220.60	91,560	0.34%	1.50%	0.01%	14.50%	0.05%
Hologic Inc	HOLX	245.83	74.81	18,391				25.00%	
Citizens Financial Group Inc	CFG	492.49	39.37	19,389	0.07%	4.27%	0.00%	8.00%	0.01%
O'Reilly Automotive Inc	ORLY	62.58	844.03	52,816	0.19%			13.00%	0.03%
Allstate Corp/The	ALL	265.21	135.60	35,962	0.13%	2.51%	0.00%	2.50%	0.00%
Equity Residential	EQR	377.92	59.00	22,297		4.24%		-6.00%	
BorgWarner Inc	BWA	234.15	40.25	9,425	0.03%	1.69%	0.00%	9.50%	0.00%
Keurig Dr Pepper Inc	KDP	1,416.25	35.66	50,504	0.19%	2.24%	0.00%	11.50%	0.02%
Organon & Co	OGN	254.36	27.93	7,104		4.01%			
Host Hotels & Resorts Inc	HST	715.03	16.05	11,476		2.99%		59.50%	
Incyte Corp	INCY	222.48	80.32	17,869				25.50%	
Simon Property Group Inc	SPG	326.95	117.48	38,410	0.14%	6.13%	0.01%	3.00%	0.00%
Eastman Chemical Co	EMN	119.99	81.44	9,772	0.04%	3.88%	0.00%	9.50%	0.00%
AvalonBay Communities Inc	AVB	139.90	161.52	22,596	0.08%	3.94%	0.00%	9.00%	0.01%
Prudential Financial Inc	PRU	368.00	99.46	36,601	0.13%	4.83%	0.01%	5.00%	0.01%
United Parcel Service Inc	UPS	729.82	173.84	126,872	0.47%	3.50%	0.02%	11.50%	0.05%
Walgreens Boots Alliance Inc	WBA	862.33	37.36	32,217	0.12%	5.14%	0.01%	5.00%	0.01%
STERIS PLC	STE	99.82	184.69	18,436	0.07%	1.02%	0.00%	10.00%	0.01%
McKesson Corp	MCK	141.79	375.12	53,189	0.20%	0.58%	0.00%	10.00%	0.02%
Lockheed Martin Corp	LMT	262.07	486.49	127,496	0.47%	2.47%	0.01%	8.00%	0.04%
AmerisourceBergen Corp	ABC	203.29	165.71	33,687	0.12%	1.17%	0.00%	8.50%	0.01%
Capital One Financial Corp	COF	381.70	92.96	35,483		2.58%			
Waters Corp	WAT	59.41	342.58	20,352	0.07%			6.00%	0.00%
Nordson Corp	NDSN	57.16	237.72	13,587	0.05%	1.09%	0.00%	12.00%	0.01%
Dollar Tree Inc	DLTR	221.18	141.44	31,284	0.12%			12.00%	0.01%
Darden Restaurants Inc	DRI	122.39	138.33	16,930		3.50%		21.50%	
Evergy Inc	EVER	229.48	62.93	14,441		3.89%			
Match Group Inc	MTCH	279.31	41.49	11,588				21.00%	
Domino's Pizza Inc	DPZ	35.40	346.40	12,262	0.05%	1.27%	0.00%	14.00%	0.01%
NVR Inc	NVR	3.20	4,612.58	14,742	0.05%			5.50%	0.00%
NetApp Inc	NTAP	215.57	60.06	12,947	0.05%	3.33%	0.00%	8.50%	0.00%
DXC Technology Co	DXC	230.07	26.50	6,097	0.02%			12.00%	0.00%
Old Dominion Freight Line Inc	ODFL	110.48	283.78	31,353	0.12%	0.42%	0.00%	11.50%	0.01%
DaVita Inc	DVA	90.10	74.67	6,728	0.02%			8.50%	0.00%
Hartford Financial Services Group Inc/The	HIG	318.10	75.83	24,121	0.09%	2.24%	0.00%	6.50%	0.01%
Iron Mountain Inc	IRM	290.71	49.85	14,492	0.05%	4.96%	0.00%	11.00%	0.01%
Estee Lauder Cos Inc/The	EL	231.27	248.11	57,380	0.21%	1.06%	0.00%	14.00%	0.03%
Cadence Design Systems Inc	CDNS	274.32	160.64	44,066	0.16%			12.00%	0.02%
Tyler Technologies Inc	TYL	41.64	322.41	13,425	0.05%			12.00%	0.01%
Universal Health Services Inc	UHS	64.16	140.89	9,039	0.03%	0.57%	0.00%	7.00%	0.00%
Skyworks Solutions Inc	SWKS	160.16	91.13	14,595	0.05%	2.72%	0.00%	9.00%	0.00%
Quest Diagnostics Inc	DGX	113.89	156.44	17,816	0.07%	1.69%	0.00%	3.50%	0.00%
Activision Blizzard Inc	ATVI	782.63	76.55	59,910	0.22%	0.61%	0.00%	12.50%	0.03%
Rockwell Automation Inc	ROK	114.75	257.57	29,555	0.11%	1.83%	0.00%	9.50%	0.01%
Kraft Heinz Co/The	KHC	1,224.93	40.71	49,867	0.18%	3.93%	0.01%	6.50%	0.01%
American Tower Corp	AMT	465.61	211.86	98,643	0.36%	2.95%	0.01%	9.00%	0.03%
Regeneron Pharmaceuticals Inc	REGN	107.08	721.49	77,260	0.28%			3.00%	0.01%
Amazon.com Inc	AMZN	10,201.65	84.00	856,939				26.50%	
Jack Henry & Associates Inc	JKHY	72.95	175.56	12,807	0.05%	1.12%	0.00%	9.00%	0.00%
Ralph Lauren Corp	RL	41.09	105.67	4,342	0.02%	2.84%	0.00%	12.00%	0.00%
Boston Properties Inc	BXP	156.76	67.58	10,594		5.80%		-1.00%	

Exhibit 1404/MARKET RETURN CALCULATION

[1] Estimated Weighted Average Dividend Yield	1.81%
[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outstg	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Amphenol Corp	APH	595.10	76.14	45,311	0.17%	1.10%	0.00%	13.00%	0.02%
Howmet Aerospace Inc	HWM	413.71	39.41	16,304	0.06%	0.41%	0.00%	12.00%	0.01%
Pioneer Natural Resources Co	PXD	237.60	228.39	54,265		10.00%		21.00%	
Valero Energy Corp	VLO	385.52	126.86	48,907	0.18%	3.09%	0.01%	11.00%	0.02%
Synopsys Inc	SNPS	152.42	319.29	48,665	0.18%			12.50%	0.02%
Etsy Inc	ETSY	125.69	119.78	15,055				24.50%	
CH Robinson Worldwide Inc	CHRW	117.71	91.56	10,777	0.04%	2.66%	0.00%	8.50%	0.00%
Accenture PLC	ACN	658.39	266.84	175,685	0.65%	1.68%	0.01%	12.50%	0.08%
TransDigm Group Inc	TDG	54.38	629.65	34,237	0.13%			19.50%	0.02%
Yum! Brands Inc	YUM	281.69	128.08	36,079	0.13%	1.78%	0.00%	10.50%	0.01%
Prologis Inc	PLD	923.08	112.73	104,059	0.38%	2.80%	0.01%	6.00%	0.02%
FirstEnergy Corp	FE	571.75	41.94	23,979	0.09%	3.72%	0.00%	3.00%	0.00%
VeriSign Inc	VRSN	106.02	205.44	21,780	0.08%			11.00%	0.01%
Quanta Services Inc	PWR	142.90	142.50	20,363	0.07%	0.22%	0.00%	16.50%	0.01%
Henry Schein Inc	HSIC	135.55	79.87	10,826	0.04%			7.00%	0.00%
Ameren Corp	AEE	258.37	88.92	22,974	0.08%	2.65%	0.00%	6.50%	0.01%
ANSYS Inc	ANSS	87.11	241.59	21,045	0.08%			8.50%	0.01%
FactSet Research Systems Inc	FDS	38.10	401.21	15,285	0.06%	0.89%	0.00%	10.50%	0.01%
NVIDIA Corp	NVDA	2,460.00	146.14	359,504		0.11%		23.00%	
Sealed Air Corp	SEE	144.66	49.88	7,216	0.03%	1.60%	0.00%	10.00%	0.00%
Cognizant Technology Solutions Corp	CTSH	513.92	57.19	29,391	0.11%	1.89%	0.00%	8.00%	0.01%
SVB Financial Group	SIVB	59.10	230.14	13,602	0.05%			8.50%	0.00%
Intuitive Surgical Inc	ISRG	353.39	265.35	93,771	0.34%			12.50%	0.04%
Take-Two Interactive Software Inc	TTWO	167.82	104.13	17,475	0.06%			8.00%	0.01%
Republic Services Inc	RSG	316.00	128.99	40,761	0.15%	1.54%	0.00%	12.50%	0.02%
eBay Inc	EBAY	542.66	41.47	22,504	0.08%	2.12%	0.00%	15.50%	0.01%
Goldman Sachs Group Inc/The	GS	338.64	343.38	116,280	0.43%	2.91%	0.01%	5.00%	0.02%
SBA Communications Corp	SBAC	107.97	280.31	30,264		1.01%		35.50%	
Sempra Energy	SRE	314.33	154.54	48,577	0.18%	2.96%	0.01%	7.00%	0.01%
Moody's Corp	MCO	183.20	278.62	51,043	0.19%	1.00%	0.00%	4.00%	0.01%
ON Semiconductor Corp	ON	432.42	62.37	26,970				22.50%	
Booking Holdings Inc	BKNG	38.79	2,015.28	78,171				22.00%	
F5 Inc	FFIV	60.37	143.51	8,664	0.03%			10.00%	0.00%
Akamai Technologies Inc	AKAM	157.24	84.30	13,256	0.05%			5.50%	0.00%
Charles River Laboratories International Inc	CRL	50.88	217.90	11,087	0.04%			12.00%	0.00%
MarketAxess Holdings Inc	MKTX	37.64	278.89	10,497	0.04%	1.00%	0.00%	10.00%	0.00%
Devon Energy Corp	DVN	653.70	61.51	40,209		8.78%		33.50%	
Bio-Techne Corp	TECH	156.97	82.88	13,010	0.05%	0.39%	0.00%	14.50%	0.01%
Alphabet Inc	GOOGL	5,973.00	88.23	526,998					
Teleflex Inc	TFX	46.91	249.63	11,709	0.04%	0.54%	0.00%	10.00%	0.00%
Allegion plc	ALLE	87.85	105.26	9,247	0.03%	1.56%	0.00%	11.00%	0.00%
Netflix Inc	NFLX	445.02	294.88	131,227	0.48%			14.50%	0.07%
Warner Bros Discovery Inc	WBD	2,428.40	9.48	23,021					
Agilent Technologies Inc	A	296.07	149.65	44,307	0.16%	0.60%	0.00%	12.00%	0.02%
Trimble Inc	TRMB	246.63	50.56	12,469	0.05%			10.00%	0.00%
Elevance Health Inc	ELV	238.83	512.97	122,512	0.45%	1.00%	0.00%	12.50%	0.06%
CME Group Inc	CME	359.73	168.16	60,491	0.22%	2.38%	0.01%	8.50%	0.02%
Juniper Networks Inc	JNPR	324.56	31.96	10,373	0.04%	2.63%	0.00%	10.50%	0.00%
BlackRock Inc	BLK	150.20	708.63	106,433	0.39%	2.75%	0.01%	10.00%	0.04%
DTE Energy Co	DTE	193.74	117.53	22,770	0.08%	3.24%	0.00%	4.50%	0.00%
Celanese Corp	CE	108.43	102.24	11,086	0.04%	2.74%	0.00%	7.50%	0.00%
Nasdaq Inc	NDAQ	491.28	61.35	30,140	0.11%	1.30%	0.00%	8.50%	0.01%
Philip Morris International Inc	PM	1,550.20	101.21	156,896	0.58%	5.02%	0.03%	5.00%	0.03%
Ingersoll Rand Inc	IR	404.93	52.25	21,157		0.15%			
Salesforce Inc	CRM	1,000.00	132.59	132,590	0.49%			19.50%	0.10%
Huntington Ingalls Industries Inc	HII	39.90	230.68	9,205	0.03%	2.15%	0.00%	10.00%	0.00%
MetLife Inc	MET	784.61	72.37	56,782	0.21%	2.76%	0.01%	5.00%	0.01%
Tapestry Inc	TPR	240.96	38.08	9,176	0.03%	3.15%	0.00%	15.00%	0.01%
CSX Corp	CSX	2,102.41	30.98	65,133	0.24%	1.29%	0.00%	10.50%	0.03%
Edwards Lifesciences Corp	EW	618.26	74.61	46,128	0.17%			11.00%	0.02%
Ameriprise Financial Inc	AMP	106.42	311.37	33,135	0.12%	1.61%	0.00%	15.00%	0.02%
Zebra Technologies Corp	ZBRA	51.63	256.41	13,238	0.05%			11.50%	0.01%
Zimmer Biomet Holdings Inc	ZBH	209.85	127.50	26,756	0.10%	0.75%	0.00%	5.50%	0.01%
Camden Property Trust	CPT	106.53	111.88	11,918	0.04%	3.36%	0.00%	3.50%	0.00%
CBRE Group Inc	CBRE	315.95	76.96	24,315	0.09%			8.50%	0.01%
Mastercard Inc	MA	953.80	347.73	331,666	1.22%	0.66%	0.01%	18.50%	0.23%
CarMax Inc	KMX	158.02	60.89	9,622	0.04%			4.00%	0.00%
Intercontinental Exchange Inc	ICE	558.55	102.59	57,302	0.21%	1.48%	0.00%	7.00%	0.01%
Fidelity National Information Services Inc	FIS	593.38	67.85	40,261		2.77%		52.00%	

Exhibit 1404/MARKET RETURN CALCULATION

[1] Estimated Weighted Average Dividend Yield	1.81%
[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outstg	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Chipotle Mexican Grill Inc	CMG	27.72	1,387.49	38,463				23.00%	
Wynn Resorts Ltd	WYNN	113.31	82.47	9,345				27.00%	
Live Nation Entertainment Inc	LYV	230.88	69.74	16,102					
Assurant Inc	AIZ	52.83	125.06	6,607	0.02%	2.24%	0.00%	15.50%	0.00%
NRG Energy Inc	NRG	213.39	31.82	6,790		4.40%		-10.50%	
Monster Beverage Corp	MNST	521.74	101.53	52,973	0.19%			10.50%	0.02%
Regions Financial Corp	RF	934.45	21.56	20,147	0.07%	3.71%	0.00%	11.50%	0.01%
Baker Hughes Co	BKR	1,001.47	29.53	29,573		2.57%			
Mosaic Co/The	MOS	340.48	43.87	14,937		1.82%		38.00%	
Expedia Group Inc	EXPE	150.57	87.60	13,190					
CF Industries Holdings Inc	CF	196.19	85.20	16,715		1.88%		32.00%	
APA Corp	APA	321.51	46.68	15,008		2.14%			
Leidos Holdings Inc	LDOS	136.69	105.19	14,378	0.05%	1.37%	0.00%	8.50%	0.00%
Alphabet Inc	GOOG	6,086.00	88.73	540,011	1.99%			18.50%	0.37%
First Solar Inc	FSLR	106.61	149.79	15,969				20.50%	
Cooper Cos Inc/The	COO	49.35	330.67	16,320	0.06%	0.02%	0.00%	14.00%	0.01%
TE Connectivity Ltd	TEL	317.23	114.80	36,418	0.13%	1.95%	0.00%	10.50%	0.01%
Discover Financial Services	DFS	273.23	97.83	26,730	0.10%	2.45%	0.00%	16.00%	0.02%
Visa Inc	V	1,627.85	207.76	338,203	1.24%	0.87%	0.01%	13.50%	0.17%
Mid-America Apartment Communities Inc	MAA	115.48	156.99	18,129		3.57%		-14.50%	
Xylem Inc/NY	XYL	180.22	110.57	19,927	0.07%	1.09%	0.00%	9.00%	0.01%
Marathon Petroleum Corp	MPC	468.66	116.39	54,547		2.58%			
Advanced Micro Devices Inc	AMD	1,612.36	64.77	104,432				25.50%	
Tractor Supply Co	TSCO	110.46	224.97	24,851	0.09%	1.64%	0.00%	13.00%	0.01%
ResMed Inc	RMD	146.48	208.13	30,488	0.11%	0.85%	0.00%	8.50%	0.01%
Mettler-Toledo International Inc	MTD	22.29	1,445.45	32,225	0.12%			13.50%	0.02%
Jacobs Solutions Inc	J	126.61	120.07	15,202	0.06%	0.77%	0.00%	12.00%	0.01%
Copart Inc	CPRT	476.30	60.89	29,002	0.11%			7.00%	0.01%
VICI Properties Inc	VICI	997.37	32.40	32,315	0.12%	4.81%	0.01%	8.50%	0.01%
Fortinet Inc	FTNT	781.24	48.89	38,195				21.50%	
Albemarle Corp	ALB	117.15	216.86	25,406		0.73%		21.50%	
Moderna Inc	MRNA	384.18	179.62	69,006				-2.50%	
Essex Property Trust Inc	ESS	64.75	211.92	13,723		4.15%		-4.00%	
CoStar Group Inc	CSGP	406.69	77.28	31,429	0.12%			13.00%	0.02%
Realty Income Corp	O	627.15	63.43	39,780	0.15%	4.70%	0.01%	6.00%	0.01%
Westrock Co	WRK	254.52	35.16	8,949	0.03%	3.13%	0.00%	15.00%	0.00%
Westinghouse Air Brake Technologies Corp	WAB	181.87	99.81	18,152	0.07%	0.60%	0.00%	9.50%	0.01%
Pool Corp	POOL	39.05	302.33	11,806	0.04%	1.32%	0.00%	14.00%	0.01%
Western Digital Corp	WDC	317.65	31.55	10,022	0.04%			6.50%	0.00%
PepsiCo Inc	PEP	1,377.71	180.66	248,897	0.92%	2.55%	0.02%	6.00%	0.05%
Diamondback Energy Inc	FANG	181.86	136.78	24,875		6.61%			
ServiceNow Inc	NOW	202.00	388.27	78,431				45.50%	
Church & Dwight Co Inc	CHD	243.87	80.61	19,658	0.07%	1.30%	0.00%	6.00%	0.00%
Federal Realty Investment Trust	FRT	81.21	101.04	8,205	0.03%	4.28%	0.00%	2.50%	0.00%
MGM Resorts International	MGM	384.02	33.53	12,876		0.03%		25.00%	
American Electric Power Co Inc	AEP	513.86	94.95	48,791	0.18%	3.50%	0.01%	6.50%	0.01%
SolarEdge Technologies Inc	SEDG	55.90	283.27	15,833				22.00%	
Invitation Homes Inc	INVH	611.41	29.64	18,122		2.97%			
PTC Inc	PTC	118.15	120.04	14,183				29.00%	
JB Hunt Transport Services Inc	JBHT	103.54	174.36	18,053	0.07%	0.92%	0.00%	11.50%	0.01%
Lam Research Corp	LRCX	136.38	420.30	57,320	0.21%	1.64%	0.00%	14.00%	0.03%
Mohawk Industries Inc	MHK	63.53	102.22	6,494	0.02%			10.00%	0.00%
Pentair PLC	PNR	164.50	44.98	7,399	0.03%	1.96%	0.00%	12.00%	0.00%
Vertex Pharmaceuticals Inc	VRTX	256.69	288.78	74,127	0.27%			12.50%	0.03%
Amcor PLC	AMCR	1,489.02	11.91	17,734	0.07%	4.11%	0.00%	14.50%	0.01%
Meta Platforms Inc	META	2,255.32	120.34	271,405	1.00%			13.00%	0.13%
T-Mobile US Inc	TMUS	1,244.15	140.00	174,182	0.64%			16.50%	0.11%
United Rentals Inc	URI	69.31	355.42	24,633	0.09%			18.00%	0.02%
Alexandria Real Estate Equities Inc	ARE	164.09	145.67	23,903	0.09%	3.32%	0.00%	10.00%	0.01%
Honeywell International Inc	HON	672.32	214.30	144,079	0.53%	1.92%	0.01%	12.00%	0.06%
Delta Air Lines Inc	DAL	641.19	32.86	21,069					
United Airlines Holdings Inc	UAL	326.73	37.70	12,318					
Seagate Technology Holdings PLC	STX	206.45	52.61	10,862	0.04%	5.32%	0.00%	11.50%	0.00%
News Corp	NWS	193.28	18.44	3,564		1.08%			
Centene Corp	CNC	566.26	82.01	46,439	0.17%			10.00%	0.02%
Martin Marietta Materials Inc	MLM	62.09	337.97	20,985	0.08%	0.78%	0.00%	4.50%	0.00%
Teradyne Inc	TER	155.76	87.35	13,605	0.05%	0.50%	0.00%	11.50%	0.01%
PayPal Holdings Inc	PYPL	1,140.03	71.22	81,193	0.30%			12.00%	0.04%
Tesla Inc	TSLA	3,157.75	123.18	388,972				51.50%	

Exhibit 1404/MARKET RETURN CALCULATION

[1] Estimated Weighted Average Dividend Yield	1.81%
[2] Estimated Weighted Average Long-Term Growth Rate	10.72%
[3] S&P 500 Estimated Required Market Return	12.63%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Value Line Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Arch Capital Group Ltd	ACGL	369.87	62.78	23,221	0.09%			19.50%	0.02%
DISH Network Corp	DISH	292.27	14.04	4,103				-1.50%	
Dow Inc	DOW	703.76	50.39	35,462	0.13%	5.56%	0.01%	15.00%	0.02%
Everest Re Group Ltd	RE	39.17	331.27	12,974	0.05%	1.99%	0.00%	9.50%	0.00%
Teledyne Technologies Inc	TDY	46.87	399.91	18,744	0.07%			11.50%	0.01%
News Corp	NWSA	382.35	18.20	6,959		1.10%			
Exelon Corp	EXC	991.76	43.23	42,874		3.12%			
Global Payments Inc	GPN	270.40	99.32	26,856	0.10%	1.01%	0.00%	17.00%	0.02%
Crown Castle Inc	CCI	433.05	135.64	58,739	0.22%	4.62%	0.01%	12.00%	0.03%
Aptiv PLC	APTIV	270.95	93.13	25,234				26.00%	
Advance Auto Parts Inc	AAP	59.25	147.03	8,712	0.03%	4.08%	0.00%	15.50%	0.00%
Align Technology Inc	ALGN	78.11	210.90	16,474	0.06%			17.00%	0.01%
Illumina Inc	ILMN	157.30	202.20	31,806	0.12%			6.50%	0.01%
Targa Resources Corp	TRGP	226.38	73.50	16,639		1.90%			
LKQ Corp	LKQ	267.18	53.41	14,270	0.05%	2.06%	0.00%	13.00%	0.01%
Zoetis Inc	ZTS	466.07	146.55	68,303	0.25%	1.02%	0.00%	11.00%	0.03%
Digital Realty Trust Inc	DLR	287.52	100.27	28,830		4.87%		-3.50%	
Equinix Inc	EQIX	92.54	655.03	60,615	0.22%	1.89%	0.00%	15.00%	0.03%
Molina Healthcare Inc	MOH	58.40	330.22	19,285	0.07%			11.00%	0.01%
Las Vegas Sands Corp	LVS	764.17	48.07	36,733	0.14%			13.50%	0.02%

Notes:

- [1] Equals sum of Col. [9] or [14]
[2] Equals sum of Col. [11] or [16]
[3] Equals $([1] \times (1 + (0.5 \times [2]))) + [2]$
[4] Source: Bloomberg Professional as of December 31, 2022
[5] Source: Bloomberg Professional as of December 31, 2022
[6] Equals [4] x [5]
[7] Equals weight in S&P 500 based on market capitalization [6] if Growth Rate >0% and ≤20%
[8] Source: Bloomberg Professional and Value Line, as of December 31, 2022
[9] Equals [7] x [8]
[10] Source: Value Line, as of December 31, 2022
[11] Equals [7] x [10]

Application No. 22-05-006
Exhibit PAC/1405
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Long-Term Historical Beta – 2013-2021

February 2023

Exhibit 1405/LONG-TERM HISTORICAL BETA - 2013 - 2021

Company	Ticker	[1] 12/31/2013	[2] 12/31/2014	[3] 12/31/2015	[4] 12/31/2016	[5] 12/31/2017	[6] 12/31/2018	[7] 12/31/2019	[8] 12/31/2020	[9] 12/31/2021	[10] 12/31/2022	[11] Average
ALLETE, Inc.	ALE	0.75	0.80	0.80	0.75	0.80	0.65	0.65	0.85	0.90	0.90	0.79
Alliant Energy Corporation	LNT	0.75	0.80	0.80	0.70	0.70	0.60	0.60	0.85	0.85	0.85	0.75
Ameren Corporation	AEE	0.80	0.75	0.75	0.65	0.70	0.55	0.55	0.85	0.80	0.85	0.73
American Electric Power Company, Inc.	AEP	0.70	0.70	0.70	0.65	0.65	0.55	0.55	0.75	0.75	0.75	0.68
Avista Corporation	AVA	0.75	0.80	0.80	0.70	0.75	0.65	0.60	0.95	0.95	0.90	0.79
CMS Energy Corporation	CMS	0.70	0.70	0.75	0.65	0.65	0.55	0.50	0.80	0.80	0.80	0.69
Duke Energy Corporation	DUK	0.65	0.60	0.65	0.60	0.60	0.50	0.50	0.85	0.85	0.85	0.67
Entergy Corporation	ETR	0.70	0.70	0.70	0.65	0.65	0.60	0.60	0.95	0.95	0.95	0.75
Evergy, Inc.	EVRG						NMF	NMF	1.00	0.95	0.90	0.98
IDACORP, Inc.	IDA	0.75	0.80	0.80	0.75	0.70	0.55	0.55	0.80	0.80	0.80	0.73
NextEra Energy, Inc.	NEE	0.70	0.70	0.75	0.65	0.65	0.55	0.55	0.90	0.90	0.95	0.73
NorthWestern Corporation	NWE	0.70	0.70	0.70	0.70	0.70	0.55	0.60	0.95	0.95	0.90	0.75
OGE Energy Corporation	OGE	0.85	0.90	0.95	0.90	0.95	0.85	0.75	1.10	1.05	1.00	0.93
Otter Tail Corporation	OTTR	0.95	0.90	0.85	0.85	0.90	0.75	0.70	0.85	0.90	0.85	0.85
Portland General Electric Company	POR	0.75	0.80	0.80	0.70	0.70	0.60	0.55	0.85	0.90	0.85	0.74
Southern Company	SO	0.55	0.55	0.60	0.55	0.55	0.50	0.50	0.90	0.95	0.90	0.63
Xcel Energy Inc.	XEL	0.65	0.65	0.65	0.60	0.60	0.50	0.50	0.80	0.80	0.80	0.64
Mean		0.73	0.74	0.75	0.69	0.70	0.59	0.58	0.88	0.89	0.87	0.75

Notes:

[1] Value Line, dated December 26, 2013.

[2] Value Line, dated December 31, 2014.

[3] Value Line, dated December 30, 2015.

[4] Value Line, dated December 29, 2016.

[5] Value Line, dated December 28, 2017.

[6] Value Line, dated December 27, 2018.

[7] Value Line, dated December 26, 2019.

[8] Value Line, dated December 30, 2020.

[9] Value Line, dated December 29, 2021.

[10] Value Line, dated December 30, 2022.

[11] Average ([1] - [10])

Application No. 22-05-006
Exhibit PAC/1406
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

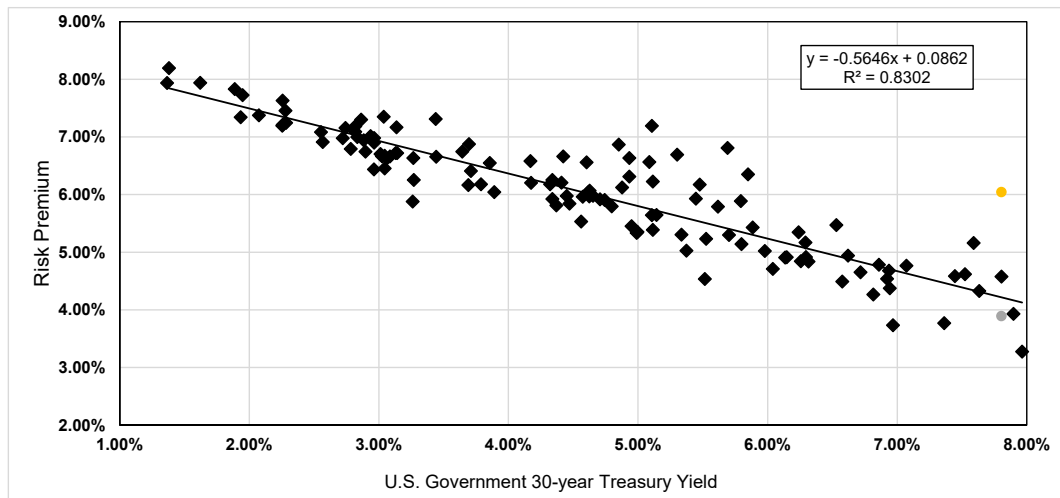
Exhibit Accompanying Rebuttal Testimony of
Ann E. Bulkley
30-Year Treasury Bond Yield Plus Risk Premium (National)

February 2023

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average		
Quarter	Authorized VI Electric ROE	U.S. Govt. 30- year Treasury	Risk Premium
1992.1	12.38%	7.81%	4.58%
1992.2	11.83%	7.90%	3.93%
1992.3	12.03%	7.45%	4.59%
1992.4	12.14%	7.52%	4.62%
1993.1	11.84%	7.07%	4.76%
1993.2	11.64%	6.86%	4.78%
1993.3	11.15%	6.32%	4.84%
1993.4	11.04%	6.14%	4.91%
1994.1	11.07%	6.58%	4.49%
1994.2	11.13%	7.36%	3.77%
1994.3	12.75%	7.59%	5.16%
1994.4	11.24%	7.96%	3.28%
1995.1	11.96%	7.63%	4.33%
1995.2	11.32%	6.94%	4.37%
1995.3	11.37%	6.72%	4.65%
1995.4	11.58%	6.24%	5.35%
1996.1	11.46%	6.29%	5.17%
1996.2	11.46%	6.92%	4.54%
1996.3	10.70%	6.97%	3.73%
1996.4	11.56%	6.62%	4.94%
1997.1	11.08%	6.82%	4.26%
1997.2	11.62%	6.94%	4.68%
1997.3	12.00%	6.53%	5.47%
1997.4	11.06%	6.15%	4.91%
1998.1	11.31%	5.88%	5.43%
1998.2	12.20%	5.85%	6.35%
1998.3	11.65%	5.48%	6.17%
1998.4	12.30%	5.11%	7.19%
1999.1	10.40%	5.37%	5.03%
1999.2	10.94%	5.80%	5.14%
1999.3	10.75%	6.04%	4.71%
1999.4	11.10%	6.26%	4.84%
2000.1	11.21%	6.30%	4.92%
2000.2	11.00%	5.98%	5.02%
2000.3	11.68%	5.79%	5.89%
2000.4	12.50%	5.69%	6.81%
2001.1	11.38%	5.45%	5.93%
2001.2	11.00%	5.70%	5.30%
2001.3	10.76%	5.53%	5.23%
2001.4	11.99%	5.30%	6.69%
2002.1	10.05%	5.52%	4.53%
2002.2	11.41%	5.62%	5.79%
2002.3	11.65%	5.09%	6.56%
2002.4	11.57%	4.93%	6.63%
2003.1	11.72%	4.85%	6.87%
2003.2	11.16%	4.60%	6.56%
2003.3	10.50%	5.11%	5.39%
2003.4	11.34%	5.11%	6.23%
2004.1	11.00%	4.88%	6.12%
2004.2	10.64%	5.34%	5.30%
2004.3	10.75%	5.11%	5.64%
2004.4	11.24%	4.93%	6.31%
2005.1	10.63%	4.71%	5.92%
2005.2	10.31%	4.47%	5.84%
2005.3	11.08%	4.42%	6.66%
2005.4	10.63%	4.65%	5.98%
2006.1	10.70%	4.63%	6.07%
2006.2	10.79%	5.14%	5.64%
2006.3	10.35%	5.00%	5.35%
2006.4	10.65%	4.74%	5.91%
2007.1	10.59%	4.80%	5.79%
2007.2	10.33%	4.99%	5.34%
2007.3	10.40%	4.95%	5.45%

2007.4	10.65%	4.61%	6.04%
2008.1	10.62%	4.41%	6.21%
2008.2	10.54%	4.57%	5.96%
2008.3	10.43%	4.45%	5.98%
2008.4	10.39%	3.64%	6.74%
2009.1	10.75%	3.44%	7.31%
2009.2	10.75%	4.17%	6.58%
2009.3	10.50%	4.32%	6.18%
2009.4	10.59%	4.34%	6.25%
2010.1	10.59%	4.62%	5.97%
2010.2	10.18%	4.37%	5.81%
2010.3	10.40%	3.86%	6.55%
2010.4	10.38%	4.17%	6.20%
2011.1	10.09%	4.56%	5.53%
2011.2	10.26%	4.34%	5.92%
2011.3	10.57%	3.70%	6.88%
2011.4	10.39%	3.04%	7.35%
2012.1	10.30%	3.14%	7.17%
2012.2	9.95%	2.94%	7.01%
2012.3	9.90%	2.74%	7.16%
2012.4	10.16%	2.86%	7.30%
2013.1	9.85%	3.13%	6.72%
2013.2	9.86%	3.14%	6.72%
2013.3	10.12%	3.71%	6.41%
2013.4	9.97%	3.79%	6.18%
2014.1	9.86%	3.69%	6.16%
2014.2	10.10%	3.44%	6.66%
2014.3	9.90%	3.27%	6.63%
2014.4	9.94%	2.96%	6.98%
2015.1	9.64%	2.55%	7.08%
2015.2	9.83%	2.88%	6.94%
2015.3	9.40%	2.96%	6.44%
2015.4	9.86%	2.96%	6.90%
2016.1	9.70%	2.72%	6.98%
2016.2	9.48%	2.57%	6.91%
2016.3	9.74%	2.28%	7.46%
2016.4	9.83%	2.83%	7.00%
2017.1	9.72%	3.05%	6.67%
2017.2	9.64%	2.90%	6.75%
2017.3	10.00%	2.82%	7.18%
2017.4	9.91%	2.82%	7.09%
2018.1	9.69%	3.02%	6.66%
2018.2	9.75%	3.09%	6.66%
2018.3	9.69%	3.06%	6.63%
2018.4	9.52%	3.27%	6.25%
2019.1	9.72%	3.01%	6.70%
2019.2	9.58%	2.78%	6.79%
2019.3	9.53%	2.29%	7.25%
2019.4	9.89%	2.26%	7.63%
2020.1	9.72%	1.89%	7.83%
2020.2	9.58%	1.38%	8.19%
2020.3	9.30%	1.37%	7.93%
2020.4	9.56%	1.62%	7.94%
2021.1	9.45%	2.07%	7.38%
2021.2	9.47%	2.26%	7.21%
2021.3	9.27%	1.93%	7.34%
2021.4	9.67%	1.95%	7.73%
2022.1	9.45%	2.25%	7.20%
2022.2	9.50%	3.05%	6.45%
2022.3	9.14%	3.26%	5.88%
2022.4	9.93%	3.89%	6.04%
AVERAGE	10.61%	4.56%	6.05%
MEDIAN	10.58%	4.61%	6.18%



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.911140
R Square	0.830176
Adjusted R Square	0.828784
Standard Error	0.004252
Observations	124.000000

ANOVA					
	df	SS	MS	F	Significance F
Regression	1.000000	0.010781	0.010781	596.389576	0.000000
Residual	122.000000	0.002205	0.000018		
Total	123.000000	0.012986			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.0862	0.0011	76.9714	0.0000	0.0840	0.0884	0.0840	0.0884
U.S. Govt. 30-year Treasury	(0.5646)	0.0231	(24.4211)	0.0000	(0.6103)	(0.5188)	(0.6103)	(0.5188)

	[7]	[8]	[9]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current 30-day average of 30-year U.S. Treasury bond yield [4]	3.71%	6.53%	10.24%
Blue Chip Near-Term Projected Forecast (Q1 2023 - Q1 2024) [5]	3.88%	6.43%	10.31%
Blue Chip Long-Term Projected Forecast (2024-2028) [6]	3.90%	6.42%	10.32%
AVERAGE			10.29%

Notes:

- [1] Regulatory Research Associates, rate cases through December 31, 2022
- [2] S&P Capital IQ Pro, quarterly bond yields are the average of each trading day in the quarter
- [3] Equals Column [1] – Column [2]
- [4] S&P Capital IQ Pro, 30-day average as of December 31, 2022
- [5] Blue Chip Financial Forecasts, Vol. 42, No. 1, January 1, 2023, at 2
- [6] Blue Chip Financial Forecasts, Vol. 41, No. 12, December 2, 2022, at 14
- [7] See notes [4], [5] & [6]
- [8] Equals 0.086227 + (-0.564583 x Column [7])
- [9] Equals Column [7] + Column [8]

Application No. 22-05-006
Exhibit PAC/1407
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Rebuttal Testimony of

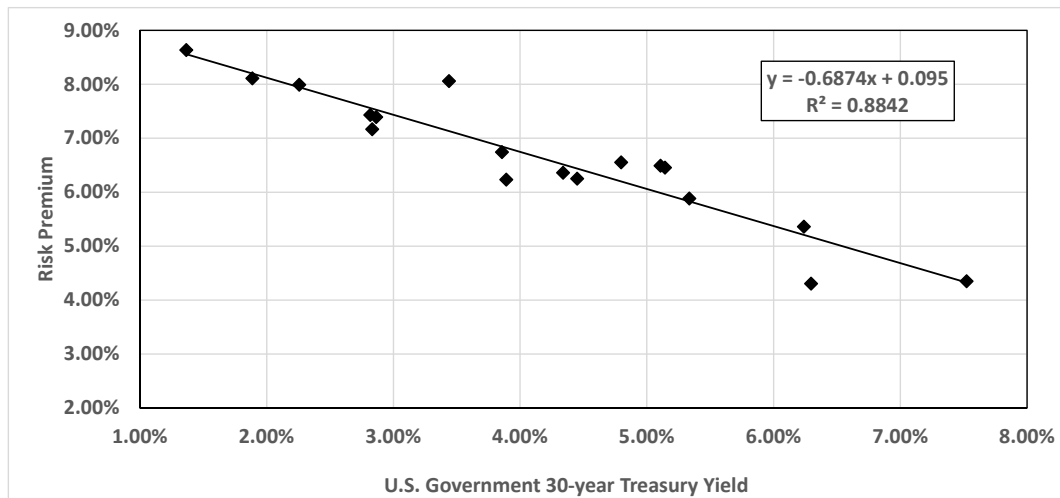
Ann E. Bulkley

30-Year Treasury Bond Yield Plus Risk Premium (California)

February 2023

BOND YIELD PLUS RISK PREMIUM- CALIFORNIA

	X		Y
	[1]	[2]	[3]
	Average		
Quarter	Authorized VI Electric ROE	U.S. Govt. 30- year Treasury	Risk Premium
1992.4	11.88%	7.52%	4.35%
1995.4	11.60%	6.24%	5.36%
2000.1	10.60%	6.30%	4.30%
2004.2	11.22%	5.34%	5.88%
2004.3	11.60%	5.11%	6.49%
2006.2	11.60%	5.14%	6.46%
2007.1	11.35%	4.80%	6.55%
2008.3	10.70%	4.45%	6.25%
2009.1	11.50%	3.44%	8.06%
2009.4	10.70%	4.34%	6.36%
2010.3	10.60%	3.86%	6.74%
2012.4	10.26%	2.86%	7.39%
2016.4	10.00%	2.83%	7.17%
2017.4	10.25%	2.82%	7.43%
2019.4	10.25%	2.26%	7.99%
2020.1	10.00%	1.89%	8.11%
2020.3	10.00%	1.37%	8.63%
2022.4	10.13%	3.89%	6.23%
AVERAGE	10.79%	4.14%	6.65%
MEDIAN	10.65%	4.12%	6.52%



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.940330625
R Square	0.884221685
Adjusted R Square	0.87698554
Standard Error	0.004239121
Observations	18

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.002195865	0.002195865	122.1951358	6.69462E-09
Residual	16	0.000287522	1.79701E-05		
Total	17	0.002483387			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.094974556	0.002758926	34.42447129	1.95963E-16	0.089125894	0.100823217	0.089125894	0.100823217
U.S. Govt. 30-year Treasury	-0.68736586	0.062181472	-11.05419087	6.69462E-09	-0.819184692	-0.555547028	-0.819184692	-0.555547028

	[7]	[8]	[9]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current 30-day average of 30-year U.S. Treasury bond yield [4]	3.71%	6.95%	10.66%
Blue Chip Near-Term Projected Forecast (Q3 2022 - Q3 2023) [5]	3.88%	6.83%	10.71%
Blue Chip Long-Term Projected Forecast (2023-2027) [6]	3.90%	6.82%	10.72%
AVERAGE			10.69%

Notes:

- [1] Regulatory Research Associates, rate cases through December 31, 2022
- [2] S&P Capital IQ Pro, quarterly bond yields are the average of each trading day in the quarter
- [3] Equals Column [1] – Column [2]
- [4] S&P Capital IQ Pro, 30-day average as of December 31, 2022
- [5] Blue Chip Financial Forecasts, Vol. 42, No. 1, January 1, 2023, at 2
- [6] Blue Chip Financial Forecasts, Vol. 41, No. 12, December 2, 2022, at 14
- [7] See notes [4], [5] & [6]
- [8] Equals 0.094975 + (-0.687366 x Column [7])
- [9] Equals Column [7] + Column [8]

Application No. 22-05-006
Exhibit PAC/1408
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Comparison of Dr. Woolridge DCF Analysis

February 2023

Exhibit 1408/Comparison of Dr. Woolridge DCF Analysis

As-Filed v. As-Updated

	Notes	Dr. Woolridge As-Filed	As-Updated Dividend Yield	As-Updated Div. Yield & Low Gwth Rate	As-Updated Div. Yield & High Gwth Rate
Panel A - Dr. Woolridge Proxy Group					
Dividend Yield	[1]	3.65%	3.75%	3.75%	3.75%
Adjustment Factor	[2]	<u>1.0269</u>	<u>1.0269</u>	<u>1.0265</u>	<u>1.0280</u>
Adjusted Dividend Yield	[3]	3.75%	3.85%	3.85%	3.86%
Growth Rate	[4]	<u>5.38%</u>	<u>5.38%</u>	<u>5.30%</u>	<u>5.60%</u>
Cost of Equity	[5]	9.10%	9.23%	9.15%	9.46%
Increase from As-Filed:			0.13%	0.05%	0.36%
Panel B - Ms. Bulkley Proxy Group					
Dividend Yield	[1]	3.70%	3.87%	3.87%	3.87%
Adjustment Factor	[2]	<u>1.0288</u>	<u>1.0288</u>	<u>1.0290</u>	<u>1.0300</u>
Adjusted Dividend Yield	[3]	3.81%	3.98%	3.98%	3.98%
Growth Rate	[4]	<u>5.75%</u>	<u>5.75%</u>	<u>5.80%</u>	<u>6.00%</u>
Cost of Equity	[5]	9.55%	9.73%	9.78%	9.98%
Increase from As-Filed:			0.18%	0.23%	0.44%

Notes:

[1] *As-Filed*: Exh. JRW-5; *As-Updated*: median of 30-day average stock price

[2] Equals $1 + (0.5 \times [4])$

[3] $[1] \times [2]$

[4] *As-Filed*: Based on data from Exh. JRW-5, pp. 3-6; *As-Updated*: low and high EPS growth rate from Exh. JRW-5, p. 6

[5] Equals $[3] + [4]$; note, Dr. Woolridge rounds the Panel B result down.

Application No. 22-05-006
Exhibit PAC/1409
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Comparison of Dr. Woolridge CAPM Analysis

February 2023

Exhibit 1409/Comparison of Dr. Woolridge CAPM Analysis

As-Filed v. As-Updated

	Notes	Dr. Woolridge As-Filed	As-Updated Risk-Free Rate	As-Updated Risk-Free Rate & MRP
Panel A - Dr. Woolridge Proxy Group				
Risk-Free Rate	[1]	3.60%	4.00%	4.00%
Beta	[2]	0.85	0.85	0.85
Market Risk Premium	[3]	<u>6.00%</u>	<u>6.00%</u>	<u>8.63%</u>
Cost of Equity	[4]	8.70%	9.10%	11.34%
Increase from As-Filed:			0.40%	2.64%
Panel B - Ms. Bulkley Proxy Group				
Risk-Free Rate	[1]	3.60%	4.00%	4.00%
Beta	[2]	0.85	0.85	0.85
Market Risk Premium	[3]	<u>6.00%</u>	<u>6.00%</u>	<u>8.63%</u>
Cost of Equity	[4]	8.70%	9.10%	11.34%
Increase from As-Filed:			0.40%	2.64%

Notes:

[1] *As-Filed*: Exh. JRW-6, p. 1; *As-Updated*: Dr. Woolridge risk-free rate in CMP 2022 Rate Case

[2] Exh. JRW-6

[3] *As-Filed*: Exh. JRW-6; *As-Updated*: equals market return on PAC/1404 minus risk-free rate in [1]

[4] Equals [1] + ([2] x [3])

Application No. 22-05-006
Exhibit PAC/1410
Witness: Ann E. Bulkley

BEFORE THE PUBLIC UTILITIES COMMISSION
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Exhibit Accompanying Rebuttal Testimony of

Ann E. Bulkley

Updated Results – Woolridge Analyses

February 2023

Exhibit 1410/Updated Results - Woolridge Analyses

	Range of Results		Notes
	Low	High	
Panel A			
DCF	9.15%	9.46%	[1]
CAPM	11.34%	11.34%	[2]
Midpoint	<u>10.25%</u>	<u>10.40%</u>	[3]
Panel B			
DCF	9.78%	9.98%	[4]
CAPM	11.34%	11.34%	[5]
Midpoint	<u>10.56%</u>	<u>10.66%</u>	[6]

Sources:

- [1] PAC/1408
- [2] PAC/1409
- [3] Average [1]+ [2]
- [4] PAC/1408
- [5] PAC/1409
- [6] Average [4]+ [5]