

Application No. 18-04-002  
Exhibit PAC/1510  
Witness: Kurt G. Strunk

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

PACIFICORP

---

Exhibit Accompanying Rebuttal Testimony of

Kurt G. Strunk

PacifiCorp California Proxy Group Capital Asset Pricing Model (CAPM)

November 2018

**PacifiCorp California  
Proxy Group  
Capital Asset Pricing Model (CAPM)**

Company	Ticker	Forward Looking Market Risk			CAPM Cost of Equity
		30-Year T-Bond Return (Rf) <sup>1</sup>	Beta Value Line <sup>2</sup>	Top-Down DCF - 30 Yr T-Bond Return <sup>3,4</sup>	
		(c)	(d)	(e)	
1 ALLETE, Inc.	ALE	3.38%	0.70	9.29%	9.88%
2 Alliant Energy Corporation	LNT	3.38%	0.65	9.29%	9.42%
3 Ameren Corporation	AEE	3.38%	0.60	9.29%	8.95%
4 American Electric Power Company, Inc.	AEP	3.38%	0.60	9.29%	8.95%
5 Avangrid, Inc.	AGR				
6 Avista Corporation	AVA	3.38%	0.65	9.29%	9.42%
7 CMS Energy Corporation	CMS	3.38%	0.55	9.29%	8.49%
8 Consolidated Edison, Inc.	ED	3.38%	0.45	9.29%	7.56%
9 DTE Energy Company	DTE	3.38%	0.60	9.29%	8.95%
10 Duke Energy Corporation	DUK	3.38%	0.55	9.29%	8.49%
11 Edison International	EIX	3.38%	0.60	9.29%	8.95%
12 El Paso Electric Company	EE	3.38%	0.70	9.29%	9.88%
13 Eversource Energy	ES	3.38%	0.60	9.29%	8.95%
14 Fortis Inc.	FTS	3.38%	0.65	9.29%	9.42%
15 IDACORP, Inc.	IDA	3.38%	0.60	9.29%	8.95%
16 NextEra Energy, Inc.	NEE	3.38%	0.60	9.29%	8.95%
17 OGE Energy Corp.	OGE	3.38%	0.90	9.29%	11.74%
18 PG&E Corporation	PCG	3.38%	0.65	9.29%	9.42%
19 Pinnacle West Capital Corporation	PNW	3.38%	0.60	9.29%	8.95%
20 PNM Resources, Inc.	PNM	3.38%	0.65	9.29%	9.42%
21 Portland General Electric Company	POR	3.38%	0.60	9.29%	8.95%
22 PPL Corporation	PPL	3.38%	0.70	9.29%	9.88%
23 Public Service Enterprise Group Incorporated	PEG	3.38%	0.65	9.29%	9.42%
24 WEC Energy Group, Inc.	WEC	3.38%	0.55	9.29%	8.49%
25 Xcel Energy Inc.	XEL	3.38%	0.55	9.29%	8.49%
<b>Average</b>			<b>0.62</b>		<b>9.16%</b>

**Notes:**

- <sup>1</sup> Source: US Treasury, Constant Maturity 30-year Treasury Yield, October 19, 2018.
- <sup>2</sup> Source: *The Value Line Investment Survey: August 17, 2018, September 14, 2018, October 26, 2018.*
- <sup>3</sup> The formula used is Risk Premium =  $[\text{Do} \times (1 + g)] + g$  - Rf. See Exhibit Strunk Direct-11.
- <sup>4</sup> Source: Bloomberg, S&P 12 month dividend yield; Analyst estimated CAGR of the operating EPS over the index's next 3-5 years, October 19, 2018.
- <sup>5</sup> The resulting ROE estimate for Avangrid Inc. does not represent a realistic cost of equity estimate and has been excluded from my measure of central tendency.