Exhibit No.\_\_\_(SCH-13)
Docket UE-130043
Witness: Samuel C. Hadaway

# BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,  Complainant,	Docket UE-130043
v.	
PACIFICORP d/b/a Pacific Power & Light Company	
Respondent.	

# **PACIFICORP**

**EXHIBIT OF SAMUEL C. HADAWAY** 

**Update of Gorman Risk Premium Analysis** 

PacifiCorp Update of Gorman Risk Premium Analysis - Treasury Bond (Projected)

	(1)	(2)	(3)
		AUTHORIZED	INDICATED
	TREASURY	ELECTRIC	RISK
4006	BOND YIELD	RETURNS	PREMIUM
1986 1987	7.80% 8.58%	13.93% 12.99%	6.13% 4.41%
1988	8.96%	12.79%	3.83%
1989	8.45%	12.79%	4.52%
1990	8.61%	12.70%	4.09%
1991	8.14%	12.55%	4.41%
1992	7.67%	12.09%	4.42%
1993	6.60%	11.41%	4.81%
1994	7.37%	11.34%	3.97%
1995	6.88%	11.55%	4.67%
1996	6.70%	11.39%	4.69%
1997	6.61%	11.40%	4.79%
1998	5.58%	11.66%	6.08%
1999	5.87%	10.77%	4.90%
2000	5.94%	11.43%	5.49%
2001	5.49%	11.09%	5.60%
2002	5.43%	11.16%	5.73%
2003	4.96%	10.97%	6.01%
2004	5.05%	10.75%	5.70%
2005	4.65%	10.54%	5.89%
2006	4.99%	10.36%	5.37%
2007	4.83%	10.36%	5.53%
2008	4.28%	10.46% 10.48%	6.18% 6.41%
2009 2010	4.07% 4.25%	10.34%	6.09%
2011	3.91%	10.22%	6.31%
2012	2.92%	10.01%	7.09%
AVERAGE	6.10%	11.40%	5.30%
		11.4070	0.0070
INDICATED COS			
	EASURY BOND YI		3.70%
		IELD DURING STUDY	6.10%
INTEREST RATE	DIFFERENCE		-2.40%
	CHANGE COEFF		-44.63%
ADUSTMENT T	O BASIC RISK PR	EMIUM	1.07%
BASIC RISK PRE	EMIUM		5.30%
	E ADJUSTMENT		1.07%
EQUITY RISK F	PREMIUM		6.37%
PROJECTED TR	EASURY BOND YI	ELD*	3.70%
INDICATED EQU	JITY RETURN		10.07%

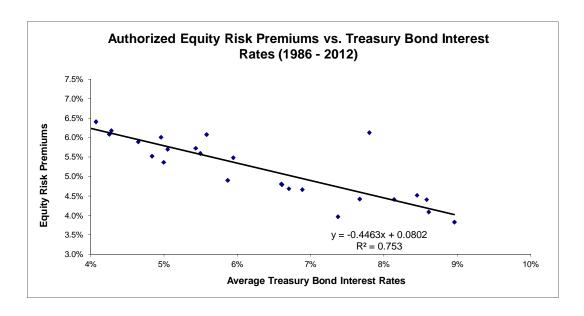
#### Notes:

Columns 1-3: Exhibit No.\_\_\_(MPG-14).

See regression data on page 2 of this Exhibit for derivation of "Interest Rate Change Coefficient."

<sup>\*</sup>See Gorman Direct, page 32, lines 19-22 for Projected Treasury Bond Yield.

**PacifiCorp**Update of Gorman Risk Premium Analysis - Treasury Bond



## SUMMARY OUTPUT

Regression Statistics						
Multiple R	0.867782037					
R Square	0.753045663					
Adjusted R Square	0.74316749					
Standard Error	0.004367231					
Observations	27					

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	df	SS	MS	F	Significance F
Regression	1	0.001453975	0.001453975	76.23329	4.60035E-09
Residual	25	0.000476818	1.90727E-05		
Total	26	0.001930793			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.080216694	0.00322704	24.85767166	3.7933E-19	0.073570482	0.0868629	0.073570482	0.08686291
X Variable 1	-0.446298728	0.051115583	-8.73116773	4.60035E-09	-0.55157324	-0.341024	-0.55157324	-0.3410242

PacifiCorp Update of Gorman Risk Premium Analysis - Utility Bond

	(1)	(2)	(3)
	Y'S "A" RATED	AUTHORIZED	INDICATED
Р	UBLIC UTILITY	ELECTRIC	RISK
	BOND YIELD	RETURNS	PREMIUM
1986	9.58%	13.93%	4.35%
1987	10.10%	12.99%	2.89%
1988	10.49%	12.79%	2.30%
1989	9.77%	12.97%	3.20%
1990 1991	9.86% 9.36%	12.70% 12.55%	2.84% 3.19%
1992	8.69%	12.09%	3.40%
1993	7.59%	11.41%	3.82%
1994	8.31%	11.34%	3.03%
1995	7.89%	11.55%	3.66%
1996	7.75%	11.39%	3.64%
1997	7.60%	11.40%	3.80%
1998	7.04%	11.66%	4.62%
1999	7.62%	10.77%	3.15%
2000	8.24%	11.43%	3.19%
2001	7.76%	11.09%	3.33%
2002	7.37%	11.16%	3.79%
2003	6.58%	10.97%	4.39%
2004	6.16%	10.75%	4.59%
2005	5.65%	10.54%	4.89%
2006	6.07%	10.36%	4.29%
2007	6.07%	10.36%	4.29%
2008	6.53%	10.46%	3.93%
2009	6.04%	10.48%	4.44%
2010	5.46%	10.34%	4.88%
2011	5.04%	10.22%	5.18%
2012 AVERAGE	4.13% 7.51%	10.01% 11.40%	5.88% 3.89%
AVERAGE	7.5170	11.40%	3.0976
INDICATED COS	T OF EQUITY		
	UTILITY BOND YIE	LD*	4.63%
	NNUAL YIELD DUR		7.51%
INTEREST RATE	DIFFERENCE		-2.88%
	CHANGE COEFFIC		-43.51%
ADUSTMENT TO	O BASIC RISK PRE	MIUM	1.25%
BASIC RISK PRE	NAIL INA		3.89%
	E ADJUSTMENT		1.25%
EQUITY RISK P			5.14%
LGUITINIONE	INCIVIIOIVI		<u> </u>
CURRENT "Baa"	UTILITY BOND YIE	LD*	4.63%
INDICATED EQU			9.77%

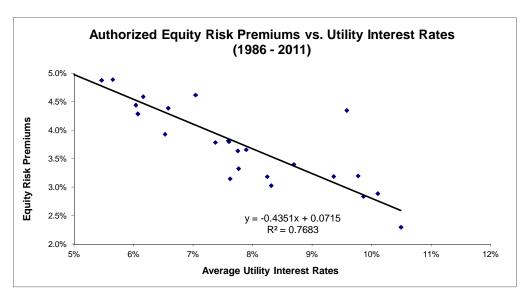
#### Notes:

Columns 1-3: Exhibit No.\_\_\_(MPG-15).

See regression data on page 4 of this Exhibit for derivation of "Interest Rate Change Coefficient."

<sup>\*</sup>See Gorman Direct, page 33, lines 6-8 for Current "Baa" Utility Bond Yield.

**h** Update of Gorman Risk Premium Analysis - Utility Bond



## SUMMARY OUTPUT

Regression Statistics						
Multiple R	0.876539909					
R Square	0.768322212					
Adjusted R Square	0.759055101					
Standard Error	0.004059461					
Observations	27					

## <u>ANOVA</u>

	df	SS	MS	F	Significance F
Regression		1 0.0013663	0.001366267	82.90848898	2.05201E-09
Residual	2	5 0.000412	1.64792E-05		
Total	2	6 0.0017782			

	Coefficients	tandard Erro	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.071545814	1 0.0036726	19.48099334	1.25624E-16	0.063981961	0.079109666	0.063981961	0.079109666
X Variable 1	-0.435111528	3 0.047786	-9.10540987	2.05201E-09	-0.53352873	-0.33669433	-0.53352873	-0.336694327