

WESTERN VERSUS NON-WESTERN UTILITIES
DPU Exhibit 6.5
DPU Witness: Artie Powell
Docket No. 01-035-01

Given the recent problems in California and the high cost of purchased power in the West, it may be that Western utilities face higher risks than do non-Western utilities. If so, investors in Western utilities may require a higher rate of return than do investors in non-Western utilities. To investigate this possibility, information on fifty-six utilities were gathered from Value Line and Zacks. Estimates of the required rate of return were estimated using the constant growth DCF model. These estimates were divided into Western and non-Western groups.

For the Western group of utilities the average ROE estimate is 13.62 percent and for the non-Western group the average is 11.56 percent. While it appears that the Western group has a larger average ROE estimate, the difference is statistically insignificant. A standard t-statistic for the difference between the means is 0.78, which has a p-value of 0.22. This large of a p-value indicates that we would fail to reject the Null hypothesis for all conventional significant levels between 1 and 10 percent. In other words, statistically speaking, there is no difference between the means for the Western and non-Western groups.

Table 1: Western Versus Non-Western Utilities

H_0 : Western Mean \geq Non-Western Mean

H_a : Western Mean $<$ Non-Western Mean

	Western Utilities	Non-Western Utilities	
n	11	45	
Mean	13.62%	11.56%	
Degrees of Freedom	t-statistic	P-Value One-Tail	Critical Value 0.05 significance
21	0.78	0.22	1.72

Regression analysis, however, does indicate that the Western utilities as a group do have higher ROE estimates than do the non-Western group. This may indicate that investors in Western utilities do require a higher rate of return than do investors in non-Western utilities.

The ROE estimates were regressed against an indicator variable for Western utilities and the

percent of income from electric operations. The indicator variable has a value of 1 if the utility is a Western utility, and 0 otherwise. The coefficient on the Western variable is positive (0.02) and significant. The p-value for the test statistic is 0.03, indicating that for significant levels up to 3 percent we would conclude that the coefficient value is significantly different from zero.

Table 2: Regression Results; $ROE = 0.13 + 0.02*West - 0.03*Income$

Number of observations		56	
Degrees of Freedom		53	
Coefficient of Determination (R^2)		0.14	
Coefficient	Estimate	t-Statistic	p-Value
Intercept	0.13	13.21	0.00
Western Dummy	0.02	2.27	0.03
Percent of Income	-0.03	1.80	0.08