

# *Cost of Capital Study for Telecommunications Utilities*

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## **EXECUTIVE SUMMARY**

### ***Background***

Small rural local exchange carriers (LECs) have filed General Rate Cases (GRCs) at the California Public Utilities Commission (CPUC) through Application and Advice Letter Processes. They have proposed intrastate rates of return in the range of 10% to 12.25%. Filed testimony justifies an intrastate rate of return in excess of 13%. The purpose of this study is to determine a reasonable rate of return for a typical small rural LEC in the USA using publicly available data.

### ***Methodology***

This study adopts a methodology traditionally followed at the CPUC, which is:

1. To select a sample of comparable companies (a group each of large and small telephone companies) and collect data on their capital structure, cost of debt and cost of equity.
2. To authorize a reasonable and notional capital structure for the small LECs based on an analysis of sample data.
3. To compute a weighted average cost of capital (wacc) composed of the cost of debt and cost of equity. The companies compute the cost of debt based on reasonable measures of Utility Bond Yields or based on actual interest expenses incurred. The cost of equity is computed as an average of 3 models: the

Discounted Cash Flow (DCF) model, the Capital Asset Pricing Model (CAPM) and the Risk Premium (RP) Model.

***New Techniques***

In addition to following Commission precedent set for small telephone companies, this study suggests a few modeling techniques. The techniques have been traditionally used in larger rate cases and also at other Commissions but have not traditionally been used in the context of small telephone companies at the CPUC. The study calculates the non-systematic portfolio variance of the sample to demonstrate portfolio diversification. The study also computes the CAPM betas of the individual companies and of the portfolios using a simple index model.

***Recommendations***

The results are summarized in the Tables 1 and 2 below:

***Table 1: Zone of Reasonableness for the Return on Equity***

RANGE of Recommended ROE		
MODEL	MIN	MAX
DCF MODEL	9.9%	11.8%
RP MODEL	15%	16%
CAPM MODEL	10%	12%
AVERAGE	11.6%	13.4%

***Table 2: Recommended overall Intrastate Rate of Return on Ratebase***

RECOMMENDED OVERALL RATE OF RETURN			9.11%
COMPONENT	PERCENT OF TOTAL CAPITAL	COMPONENT COST	WEIGHTED COST
LONG TERM DEBT	45%	5%	2.26%
COMMON EQUITY	55%	12.5%	6.84%
	100%		9.11%