



Price Regulation and Basic Ratemaking Process: Perspective from Pennsylvania

Presentation to

**Energy Regulatory Agency of the
Republic of Serbia**

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Welcome to
Pennsylvania



Public Utilities and Market Competition

- **Utility granted exclusive market**
- **Society given rights to regulate utility operations and prices charged**

Public Utilities and Market Competition (cont.)

- **Utilities will**
 - **make service available**
 - **provide adequate service to all**
 - **charge reasonable price level**
- **Utilities receive**
 - **freedom from competition**
 - **Recovery of cost of service**
 - **Includes return to investors**

Natural Monopoly

- **Large initial investment**
- **Cost spread over greater production**
- **Economies of scale**

Price Regulation

- **Regulatory approval for price changes**
- **Includes:**
 - **Reasonable operating expenses and taxes**
 - **Return of investment (depreciation)**
 - **Return on investment (profit)**

Price Cap Regulation

- **Allowable increases to rates charged to customers**
- **Alternative to Rate of Return Regulation**
 - Less regulatory lag
 - Less costly (rate case expense)
 - Simplicity
- **Price Cap Formula**
 - Price increase = inflation rate – productivity rate
- **Applicable to telecommunication utilities in Pennsylvania**

Regulatory Formula

$$\text{Required Revenues} = \text{Expenses} + (\text{Rate Base} \times \text{Rate of Return})$$

Appropriate Expense Levels

- **Test Year**
 - **Historic**
 - **Adjusted**
 - **Future or forecasted**
- **Adjustments to Test Year**
 - **Normalization**
 - **Annualization**
 - **Amortization**

Rate of Return

- **Compensation to investors for their investment**
 - A percentage applied rate base
- **Generally two types of cost associated with ROR**
 - Debt Capital
 - Equity Capital
- **ROR = Weighted cost of capital**

Utility Plant/Rate Base

- **Fair return on property value**
 - **Must be prudently constructed and necessary – “used and useful”**
- **Original Cost**
 - **Normalization Adjustments**
 - **Amortization Adjustments**
- **Depreciation Reserve**
 - **Amortization Lives**

Utility Plant/Rate Base (Cont.)

- **Construction Work in Progress**
- **Cash Working Capital**
- **Materials and Supplies**

Calculation of Cost of Capital

- **A function of:**
 - **Capital structure**
 - **Cost of fixed rate capital (debt)**
 - **Cost of equity capital**

Uniform System of Accounts (USOA)

- **Unique to utilities**
- **Results in uniformity and consistency in record keeping**
- **Distinguishes capital expenditures from operating costs**
- **Separates utility property and activities from non-utility operations**

Legal Standard

- **Reasonably sufficient to:**
 - **Assure confidence in the financial soundness of the utility**
 - **Maintain and support the utility's credit**
 - **Attract capital**
 - **Maintain the integrity of existing capital**

Thank You!

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