

Tariff Development I:

Overview of Rate Regulation and the Basic Ratemaking Process In Iowa

NARUC Energy Regulatory Partnership Program

The Public Services Regulatory Commission of Armenia
and The Iowa Utilities Board



by John Pearce
Utility Specialist
Iowa Utilities Board
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Overview

- Revenue Requirement
- Allowable Costs
- Test Year
- Operating Expenses
- Rate Base
- Percentage Rate of Return
- Decoupling



Revenue Requirement

Basic Revenue Requirement Equation:

$$R = E + (RB \times RR\%)$$

Where:

R = Revenue Requirement

E = Operating Expense

RB = Rate Base

RR% = Percentage Rate of Return



Allowable Costs

Plant and Operating Expense Necessary to Provide Utility Service:

- Costs associated with facilities that are "Used and Useful"
- Cost levels that are reasonable and prudent
- Costs associated with the same time period as revenues (Matching Principle)



Test Year

The most current historical test period available for existing and verifiable data on costs and revenues:

- Starts with cost and revenue data in the utility's annual report
- Adjustments to test year data allowed – basis for most of the contested issues in the rate case



Test Year

Adjustments to Test Year:

- "Normalization" of extraordinary events that occur during the Test Year
- "Known and Measurable" changes after the Test Year
- Matching Principle
 - Costs - Allows changes in costs that are not related to changes in revenues (otherwise, the revenue changes must also be included)



Test Year

Adjustments to Test Year:

- Matching Principle (continued)
 - Revenues - Allows revenue changes that are not related to cost changes (otherwise, the cost changes must also be included)
 - Examples:
 1. Wage increases after the test year have no impact on utility revenues and, therefore, are allowed
 2. Reduced revenues from business closings are not allowed unless operating expense is also reduced



Operating Expense

Includes:

- Depreciation expense for plant and equipment
- Operation and maintenance expense
- Fuel expense
- Employee benefits (health insurance, pensions)
- Interest on customer deposits
- Rate case expense
- Property taxes
- Income taxes



Operating Expense

Does Not Include:

- Expenses associated with providing utility services in jurisdictions other than Iowa
- Expenses for non-utility service (for example, appliance repair and servicing)
- Political expenses (including political contributions and lobbying expense)
- Charitable contributions
- Fines and penalties
- Interest on rate case refunds



Rate Base

Cost of Plant and Fixed Assets Used in
Providing Utility Service - Minus Accumulated
Depreciation

Includes:

- Generation plant
- Transmission and distribution lines
- Buildings and vehicles
- Customer deposits
- Working capital – Cash and inventories that bridge the timing gap between expenses and revenues



Rate Base

Does Not Include:

- The share of generation plant used to provide utility service in jurisdictions other than Iowa
- The share of buildings and vehicles used to provide non-utility services
- Utility plant under construction (not yet considered "Used and Useful")
- Plant cost overruns due to mismanagement (not considered reasonable and prudent)



Percentage Rate of Return

- Includes the utility's cost of debt (Return on Debt) and the cost of raising capital in equity markets (Return on Equity)
- Weighted according to the utility's capital structure of debt and equity
- Typically one of the largest and most contentious issues in the rate case



Percentage Rate of Return

- Return on Debt is based on the utility's actual debt and debt costs
- Return on Equity is estimated based on various (and competing) financial models – final decision is often based on a combination of the estimates
- Rate of Return times Rate Base equals the utility's allowed return recoverable through rates



Decoupling

- Revenue Decoupling is a regulatory policy designed to assure the utility that it can recover its revenue requirement, regardless of changes in customer sales
- The purpose of the policy is to remove a potential disincentive against utility support for energy efficiency programs, which reduce customer sales and revenues



Decoupling

Revenue Decoupling can take different forms:

- Annual reconciliation of the utility's actual revenues with its revenue requirement – where the difference is recovered from (or refunded to) customers over the next year
- Fixed-variable rate design – where the utility's fixed costs are all recovered through a fixed customer charge, and its variable costs are recovered through lower customer usage rates



Decoupling

Revenue Decoupling Disadvantages:

- Ignores the Matching Principle – allows for revenue adjustments with no reference to corresponding costs
- Difficult to estimate an appropriate Rate of Return reduction that reflects the utility's reduced risk
- Might reduce customer incentives for energy efficiency



Decoupling

In Iowa:

- Electric and gas utilities have made significant progress in energy efficiency without Revenue Decoupling
- The Iowa Utilities Board conducted an inquiry into Revenue Decoupling (Docket No. NOI-06-1) and concluded that utilities could apply for it on a case-by-case basis
- So far, only one Iowa utility has applied for Revenue Decoupling – withdrawn



Questions ?



John Pearce
Iowa Utilities Board
john.pearce@iowa.gov

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