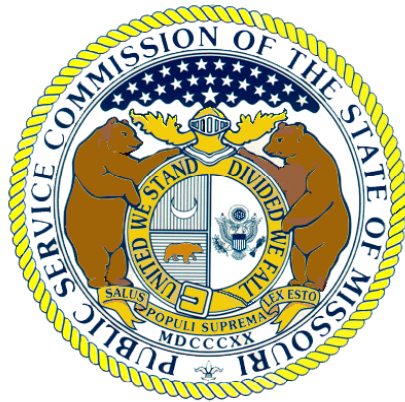


**Energy Regulators Regional Association (ERRA), National  
Association of Regulatory Utility Commissioners (NARUC)  
and Missouri Public Service Commission (MPSC)**

**Regulatory Partnership Program**



Sponsored by US Agency for International Development (USAID)

# Regulatory Partnership

Wednesday, September 22, 2010 10:45-11:30

## **Tariff Development in the Rate Making Process**

# Rate Design Derivation

## Class Cost of Service Analysis

Cost of service studies are among the basic tools of ratemaking and are used by regulators for the following purposes:

→ To attribute costs to different categories of customers based on how those customers cause costs to be incurred.

# Rate Design Derivation

- To determine how costs will be recovered from customers within each customer class.
- To calculate costs of individual types of service based on the costs each service requires the utility to expend.

## Rate Design Derivation

Generally, the main purpose of cost of service studies is to aid in the design of rates. The development of rates for a utility may be divided into four basic steps.

→ Development of test period revenue requirements.

## Rate Design Derivation

- Calculation of the test period revenue requirement to be recovered through rates.
- The cost allocation procedure
- The design of rates

# Rate Design Derivation

## Why the Rates Vary Between Customer Classes

Rates vary between customer classes based on how the utility is used by each customer.

Certain customers use more energy than others, which result in higher customer and commodity charges.

# Rate Design Derivation

## Rate Design - Goals of Rate Design:

→ Cost-Based

→ Costs are allocated to customer classes (Residential, Commercial, Industrial) based on their usage characteristics:

Maximum Demand on the System and  
Total Usage

# Rate Design Derivation

In order to:

Avoid undue price discrimination among customers.

Create price signals that encourage efficient use of system capacity, leading to lower costs in the long-run.

# Rate Design Derivation

## Stable and Predictable:

- Produce stable revenues for the utility.
- Provide stable price signals to customers, allowing them to reliably predict their bills.
- Changed gradually (i.e., avoid “rate shock”).

# Rate Design Derivation

## Easily Applied:

→ Based on usage characteristics readily measurable for most customers.

Easily Measurable: Monthly usage.

## Acceptable to Customers:

→ Generally Accepted: Rates based on monthly usage.

## Rate Design Derivation

The rate design effort should result in rates to each of the different customer classes that collect from these customers the cost they have imposed on the system to be served by the utility.

Rates should generally be designed to collect fixed costs through fixed charges.

Rates should be designed to collect variable costs through variable charges.

# Rate Design Derivation

The class costs of service study allocates costs to customer classes but does not allocate these costs to different customers within the class based on their usage differences.

You have to look at how customers that use much more or much less than the average amount of energy in a month will be impacted.

# Rate Design Derivation

## Traditional Natural Gas Residential Rate Design Proposals:

- Customer Charge \$ per bill
- Energy Charge \$ per Ccf
- PGA \$ per Ccf

## Staff Residential Natural Gas Rate Design Proposal: Straight Fixed Variable Rate Design

- Delivery Charge Rate \$ per bill
- PGA \$ per Ccf

# Rate Design Derivation

## Common Electric Residential Rate Design Proposals:

- Customer Charge      \$ per bill
- Energy Charge      \$ per Kwh

# Rate Design Derivation

## Common Non-Residential Non- Transportation Natural Rate Design Proposals:

- Customer Charge      \$ per bill
- Energy Charge      \$ per Ccf
- PGA      \$ per Ccf

# Rate Design Derivation

## Common Non-Residential Non-Transportation Electric Rate Design Proposals:

- Customer Charge      \$ per bill
- Facilities Charge      \$ per KW of facilities demand
- Demand Charge      \$ per KW of billed demand
- Energy Charge      \$ per Kwh by hours use rate block
- Reactive Charge      \$ per KVar

# Rate Design Derivation

## Common Natural Gas Transportation Rate Design Proposals:

- Customer Charge      \$ per bill
- Energy Charge      \$ per Ccf
- Demand Charge      \$ per Ccf

# Rate Design Derivation

Typical Customer Classes for Natural Gas Companies:

Residential

Small General Service

Large General Service

Large Volume Service

Interruptible Service

Transportation Service

# Rate Design Derivation

Typical Customer Classes for Electric Companies:

Residential

Small General Service

Medium General Service

Large General Service

Large Power Service

Questions?

