

# Electric Utility Ratemaking: The Factors of Rate Changes

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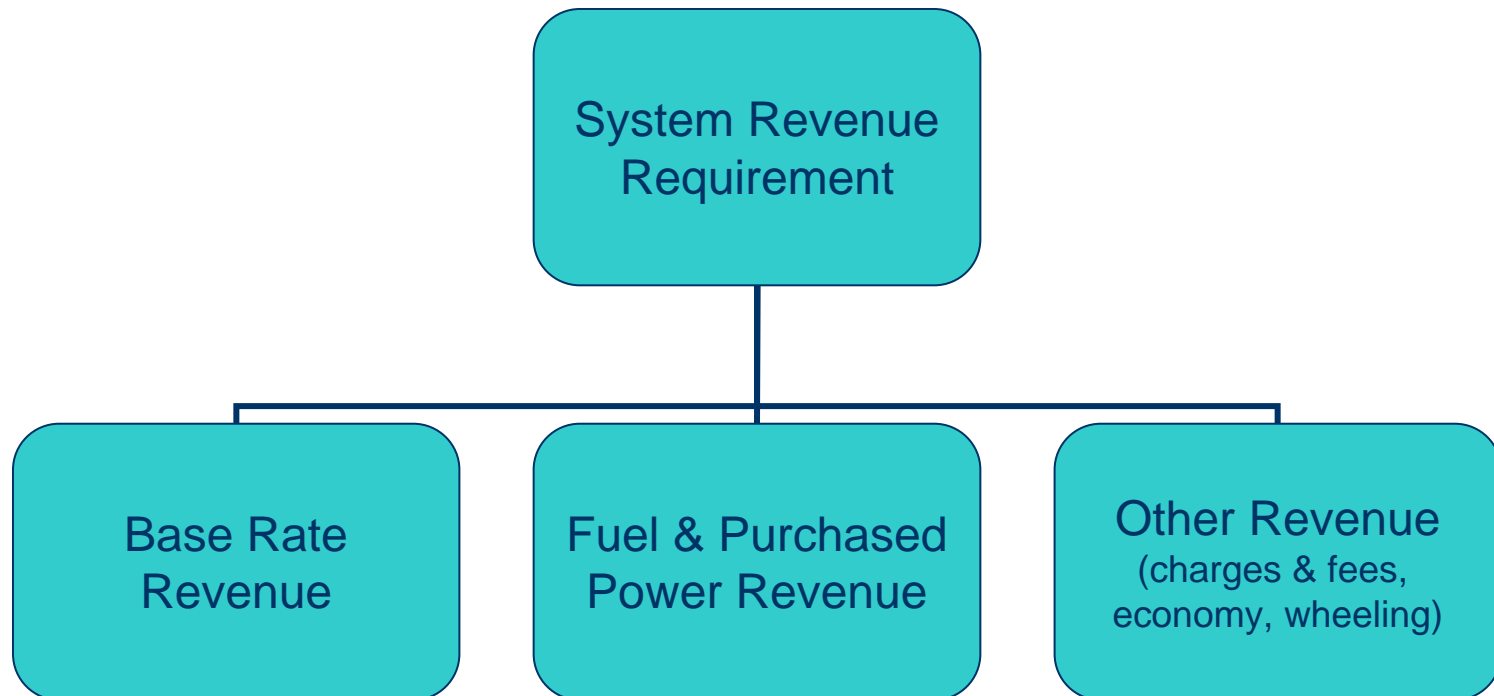
# Topics

- Fundamentals of electric pricing principles
- Primary components of cost recovery
- Communication of rate changes

# Fundamental Electric Utility Pricing Principles

- Electric utility rates must:
  - Support long-standing rule of cost causer is the cost payer
  - Be established in a manner that does not create “undue” discrimination
  - Be “just and reasonable”
  - Provide utility with cost recovery and opportunity to earn a reasonable return
    - Not all costs recoverable
    - Return is not a guarantee

# Primary Components of Cost Recovery



# Fuel and Purchased Power: Surcharge / Cost of Power Adjustment Factor

- Ensures recovery of fuel and purchased power costs
  - Strict guidelines for items included for cost recovery
  - Per kWh, based on total energy consumed during month
  - Rate may not represent full recovery of costs – depends on policy of utility. Some costs recovered in the base energy rate
  - Typically adjusted every three to six months
- No margin included in rate – recovery based on actual costs
  - Does impact cash flow

## Fuel Surcharge / Cost of Power Adjustment Factors (Cont.)

- Can be complicated, depending on system; rate is a function of:
  - Balancing account; actual and projected costs and sales
  - Price of fuel
  - Actual and planned generation unit availability
- With higher fuel prices, trend is to have rate reflect all fuel and purchased power costs
  - Increased transparency

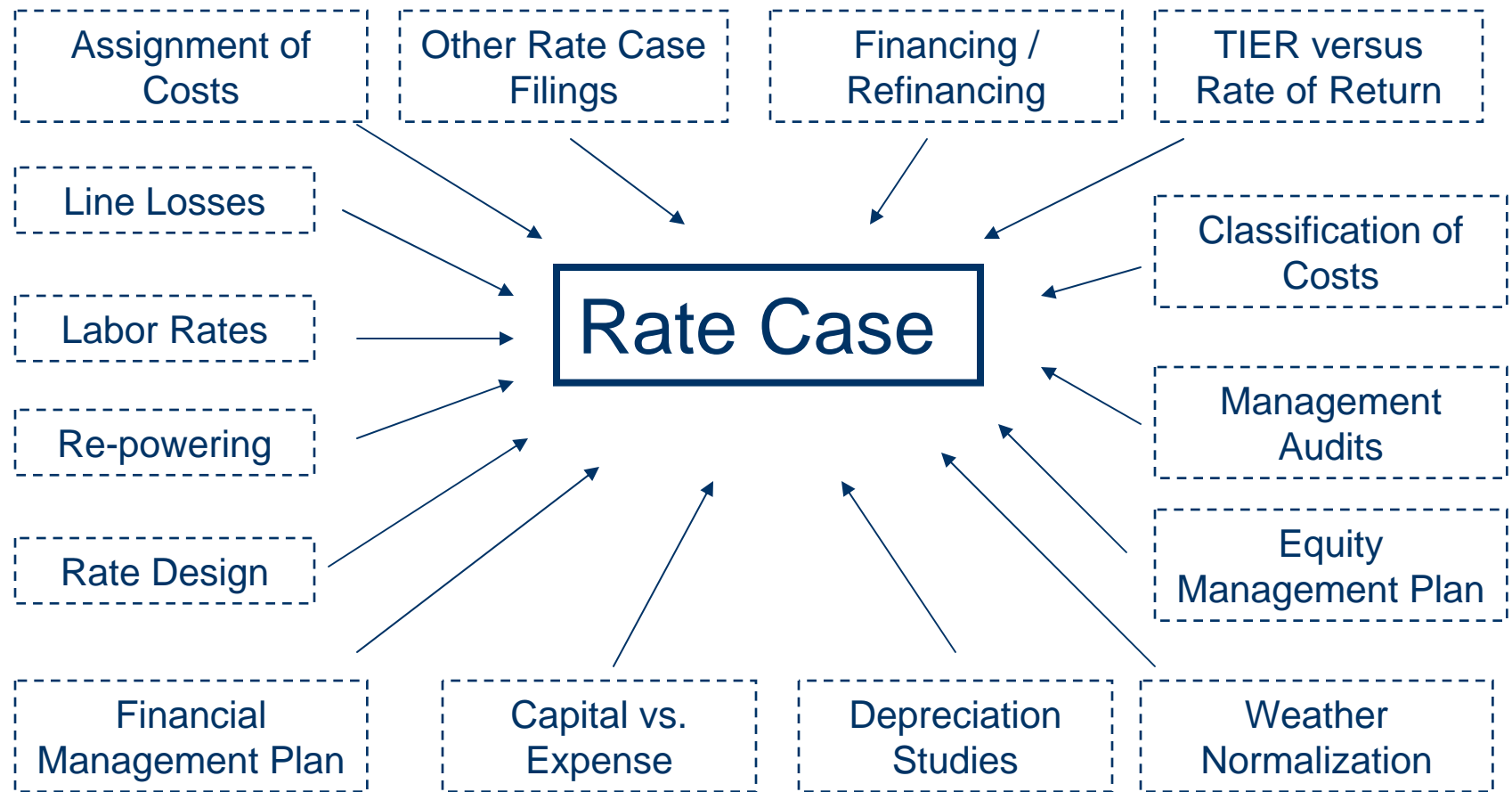
# Other Revenue: Charges and Fees

- Provides recovery of actual cost incurred to perform specific activities
- Issue of equity or fairness - typically no margin
  - Increases in fees results in higher margin levels between general rate cases
- Should be evaluated routinely

# Base Rates

- If rate regulated, adjusted through general rate case proceedings
  - Regulatory Commission of Alaska (275(a) filing)
  - Generally 6 to 15 months to fully adjudicate, depending on complexity
  - Cooperatives permitted to adjust base rates through Simplified Rate Filings - 45 day adjudicatory process

# Factors Impacting Rate Cases – Everything



# Base Rates: Standard Ratemaking Steps

## I. Revenue requirement from base rates

- Determines how much revenue the company needs to operate the system, including margin / return
- Takes fuel surcharge and other revenues into account

## II. Cost of service

- Determines cost responsibility on a customer class basis

## III. Rate design

- Determines how those costs are to be recovered

# I. Revenue Requirement

- Rates established at a level that provides cost recovery and opportunity to earn authorized return
  - Allow utility to meet debt service obligations; attract capital for future plant expansion and replacement of plant
  - Commission attempts to establish return levels commensurate with “like-industry” requirements
- Based on financial data
  - Established on a Test Period basis (historic)
  - Revenue and expenses adjusted for known and measurable changes
- Primary challenges are determining levels of cost recovery and margin/return requirements

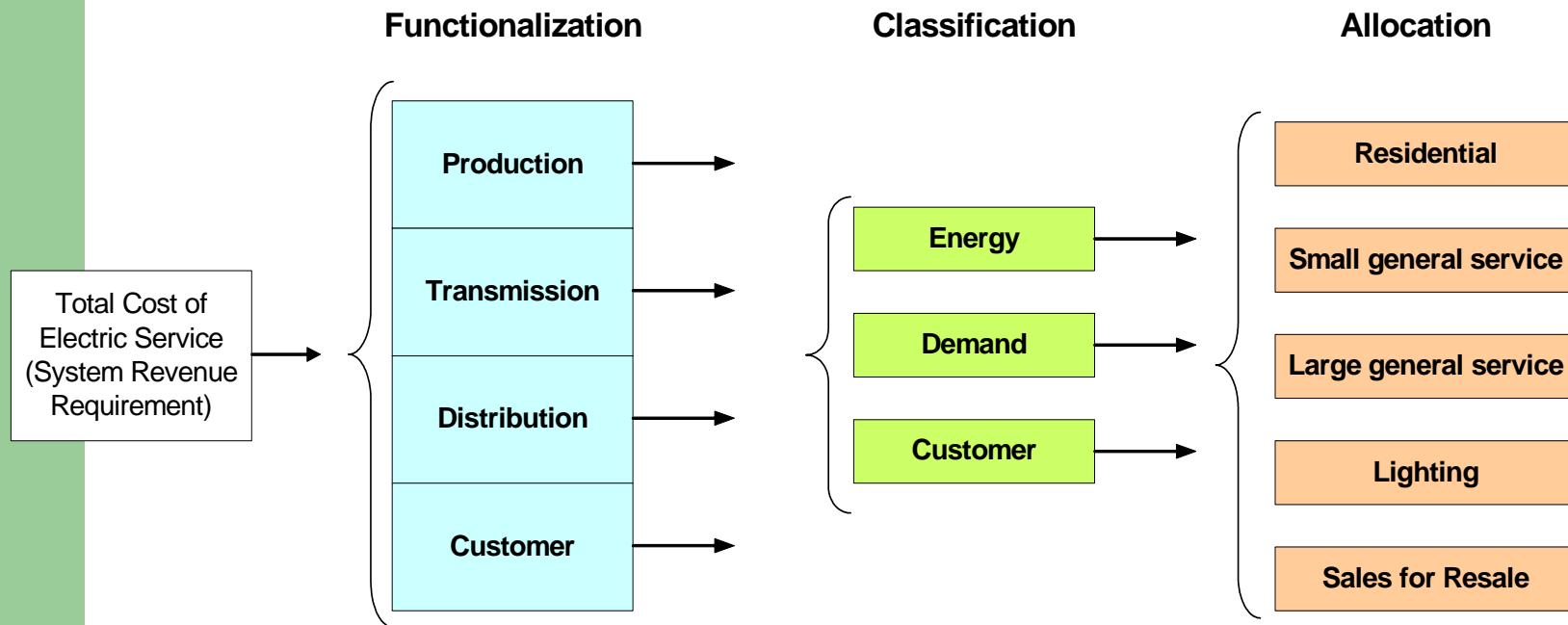
# I. Revenue Requirement (Cont.)

- Recoverable expenses
  - Associated with plant that is used and useful
  - Prudently incurred to provide electric service
- Non-recoverable expenses
  - Advertising related to image enhancement (advertising for public safety allowed)
  - Lobbying
  - Other
    - Costs not deemed reasonable
    - Extraordinary or non-recurring expenses

## II. Cost of Service Study

- Goal is to determine cost responsibility on a customer class basis
- Cost of service study requires:
  - 1) Functionalization
  - 2) Classification
  - 3) Allocation

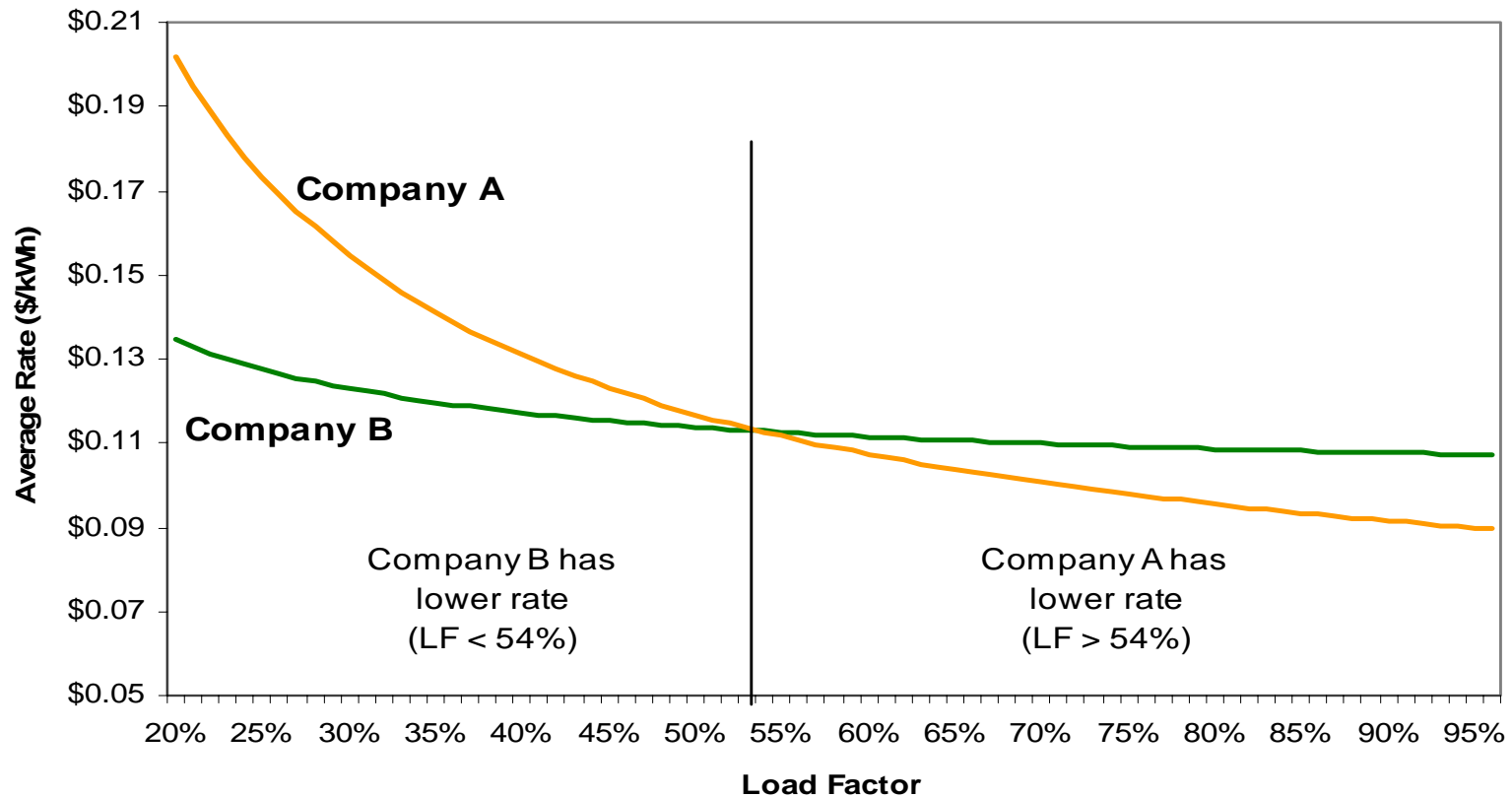
## II. Cost of Service Study (Cont.)



## III. Rate Design

- Determines how costs are to be collected from individual customers
- Standard Tariff Components
  - Customer charge (per meter)
  - Energy charge (kWh)
  - Demand charge (kW)
  - Fuel surcharge / cost of power adjustment factor (kWh)

# Large General Service: Who Has the Lower Rate?



# Drivers of Rate Differentials between Customer Classes

- Differences in underlying costs
  - Voltage level (primary vs. secondary service)
  - Costs vary by time of use
- Customer load characteristics
  - Contribution to system peak
  - Utilization of system (load factor)
- Required level of service
  - Contractual requirements
- Rate design

# Communication of Rate Changes

- Why are we changing rates?
  - Changes in underlying cost structure / load levels or business climate?
  - Ensure equitable treatment of ratepayers?
  - Change / maintain reliability standards?
- What is the impact to the customer? To the company?
  - Rate schedule alternatives

# Communication of Rate Changes (Cont.)

- Ensure consistency
  - Statements to the public / media, internal communication and documents made in other regulatory filings
- Reporting of rate changes must be taken into the proper context
  - Impact should be quantified in context of a total customer bill - very easy to mislead
  - A 20% increase in the surcharge rate may have little impact on a customer bill

# Communication of Rate Changes (Cont.)

- Rates generally stated on a per kWh basis
  - Not all classes have separate demand charge in tariff
  - Total electric bill divided by total kWh purchased
  - Resultant average cost
- Time period
  - Upcoming year, for budgetary purposes
  - Quarter, for surcharge; test year, for rate case

# Summary

- Electric rates are established based on fundamental pricing principles
  - Equitable treatment of ratepayers; cost causer is the cost payer; no undue discrimination
- Rate changes - communicate the story
  - Identify impact (both positive and negative) to customer and utility
  - Identify rate changes in proper context – impact to customer
  - Ensure consistency in statements made to public, news media, regulators