

# IURC Recommended Rate Design for Water Utilities in Indiana

- I. Introduction/Executive Summary
- II. General Economic Theory of Setting Prices
  - a. Pricing in Competitive Markets (marginal cost pricing, non-linear pricing)
  - b. Pricing under a Monopoly
  - c. Regulation
    - i. PUC Regulation
    - ii. Municipal Regulation

While the theory of price setting provides an underpinning for rate design, an understanding of the general characteristics of water is paramount to designing a proper rate structure.

- III. Characteristics of Water
  - a. Supply of Water
    - i. Ground Water/Treatment
    - ii. Surface Water/Treatment
  - b. Demand for Water
    - i. Customer Type (Residential, commercial, Industrial, Wholesale)
    - ii. Pumping Characteristics
    - iii. Econometric Studies of price elasticity of demand

Now that we have the general economic theory of pricing and the general characteristics of water, it is time to examine current rate design options.

- IV. Rates Design for Water Utilities
  - a. Objective of a Utility Tariff
  - b. General Design
  - c. Block Structures
    - i. Flat
      - 1. Advantages
      - 2. Disadvantages
    - ii. Declining
      - 1. Advantages
      - 2. Disadvantages
    - iii. Inclining
      - 1. Advantages
      - 2. Disadvantages
    - iv. Seasonal
    - v. Uniform
  - d. Fire Protection Charge
  - e. Service Charge
  - f. Rate Elements for Specific Goals
    - i. Drought Pricing
    - ii. Economic Development Rates

- iii. Social Pricing (Subsidy to low-income users)
- iv. Political Boundary Rates (Inside-city vs. Outside-city)
- v. Conservation Pricing
- g. Other Rate Elements Used to Recover Costs
  - i. System Development Charges
  - ii. Main Extension Charges
  - iii. Tap Charges
  - iv. Non-Recurring Charges (Service Charge, Non-Sufficient Funds Fee, Reconnection Fee, etc.)

As we have shown, water utilities have a myriad of rates designs to choose from. In the next section, we review rate designs from PUCs or cities to help the IURC determine what is practical and effective in the real world.

- V. Rates Designs in United States
  - a. Regional (West, Midwest, South, East)
  - b. Specific States
    - i. California - Decoupling Order from PUC
    - ii. Illinois
  - c. Specific Cities
    - i. Atlanta
    - ii. Denver

The rate designs we have reviewed have shown what is practical in real world applications and will help guide the IURC in developing a rate design.

- VI. Recommended Rate Design
  - a. IURC Rate Policy
  - b. Rate Design to Implement Rate Policy

Now that we have our recommended rate design, we review the current rate designs in Indiana.

#### VII. Rate Designs in Indiana

Since many of the utilities under the IURC's jurisdiction do not have our recommended rate design, we include an implementation plan.

- VIII. Implementation
  - a. Cost of Service Study
    - i. Requirements of Cost of Service Study
    - ii. Mitigating Expense of Cost of Service Study
    - iii. Lack of Detailed Financial Records
  - b. Phase-in of Rate Structure
  - c. Public Education