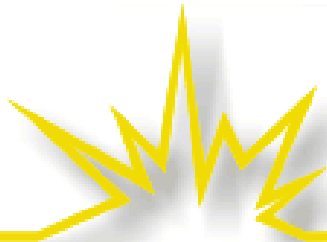


Rate Structure Design Some Details

Tom Austin
October 1999



The Regulatory Assistance Project

50 State Street, Suite 3
Montpelier, Vermont USA 05602
Tel: 802.223.8199
Fax: 802.223.8172

Website:
<http://www.raonline.org>

177 Water Street
Gardiner, ME 04345-2149
Phone (207) 582-1135
Fax (207) 582-1176



Overview

- Special Contracts
- Social Policy
- System Expansion
- Translating Costs to Rates
- Time of Use Rates



Criteria for differential rates

➤ Value of service

- Market demand based pricing
- Potential for pricing flexibility (and monopolistic price discrimination)
- Ignores cost criteria by service

➤ Cost of Service

- Principle: Rates should reflect the cost of providing service
- Costs should include all relevant costs, private and social
- Costs should be reasonably or prudently incurred



Special Contracts

- Customers with unique cost causing characteristics
- Economic Development, load or job retention
- Problem: selling power below cost yields inefficient use of resources and financially weak utilities
- Can lead to politically/economically unacceptable results



Social Value of Service Pricing

- Assistance to specific customer classes
 - Residential lifeline rate
 - Economic development/business retention rates

- Promote social objectives
 - Conservation/environmental considerations
 - Universal service



Cost related attributes

- Efficiency of the rate classes and rate blocks in discouraging wasteful use of service
- Fairness among different customers
- Avoidance of "undue discrimination" in rate relationships



System Expansion

- Project net revenues from new sales
- Estimate Costs of expansion
- Does Expansion pay for itself with reasonable return
- If not:
 - Require additional funds from customers?
 - Subsidy from external sources?
 - Internal subsidy?



Rate Averaging

- Within rate classes
- Across geographic areas: rural vs. urban
- Rate averaging vs. subsidy vs. simplicity



Intra-class allocative patterns

- Flat rates
- Customer, Demand, Usage components



Usage Rate Patterns

➤ Flat

➤ Declining block

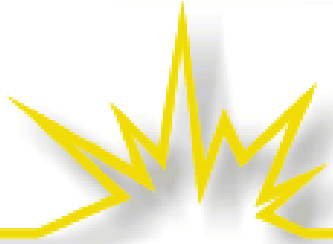
- Cheaper to serve large customers

- Marginal cost is less than average cost



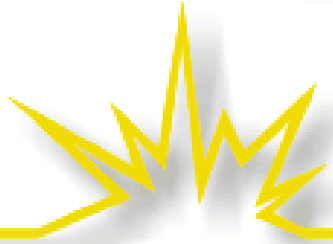
Usage Patterns

- Inverted block
 - Marginal cost greater than average cost
 - Conservation rate
 - Lifeline rate
- Peak/Off-peak
- Seasonal
- Real-time



Revenue Related Attributes

- Effectiveness in yielding total revenue requirements
- Revenue Stability
- Stability of rates
 - minimize rate changes
 - serious problem for existing customers



Practical attributes

- Simplicity
- Understandability
- Public acceptability
- Feasibility of application
- Freedom from controversies as to proper interpretation