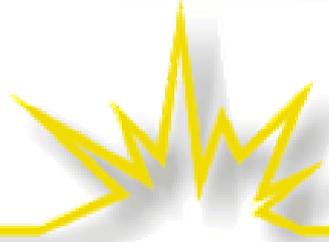


Market Prices and Public Goals



The Regulatory Assistance Project

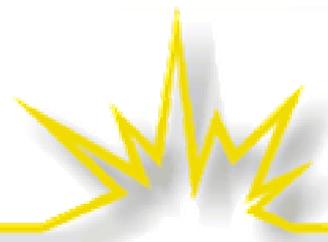
*50 State Street, Suite 3
Montpelier, Vermont USA
05602
Tel: 802.223.8199
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*177 Water St.
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Website:

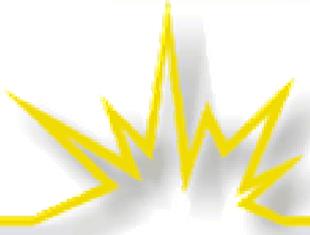
<http://www.raonline.org>

Making Markets Work...

- 
- On the one hand:
 - ❖ Cost-based ratemaking is critical to long-term stability in the electric sector
 - ◆ Getting **Prices** Right -- LRMC Pricing sends efficient signals to customers;
 - ◆ Getting **Revenues** Right -- Adequate rates are essential to run the system and attract capital

BUT: Markets are not perfect

- "Market Failures" are real:
 - ❖ Unpriced pollution (externalities)
 - ❖ Wealth effects: inability to pay distorts the demand curve
 - ❖ T&D Network is a public good: individuals can't build a highway system
 - ❖ Lack of knowledge, transaction costs
 - ❖ Social v. Private discount rates: customers pass up investments with high rates of return, while the public invests for the long-term good of the nation

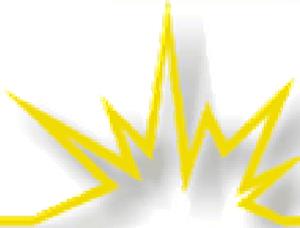


Is Electricity Just Another Commodity?

- Legal tradition: "Affected with a public interest"
- Key element in a nation's infrastructure
 - ❖ Social and economic development
- "If electricity is just another commodity, then oxygen is just another gas."
- NARUC Resolution on Stranded Benefits

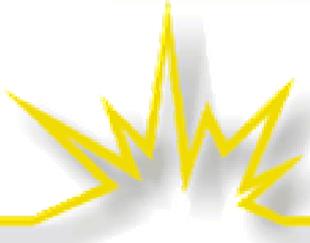
Subsidies: the Good, the Bad, and the Ugly

- Two versions of "subsidy":
 - ❖ Economist's version: Price below LRMC -- invites economic waste
 - ❖ Politician's version: Price below fair share of total revenue requirement -- shifts rates to other customers
- There is a big difference between these two definitions



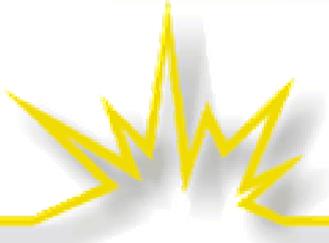
Subsidies to Resist

- Utility political and charitable contributions
- Discriminatory rates within a customer class
- Class cross-subsidies: extreme discounts to public facilities, private industries, residential, agricultural users, or other favored customers



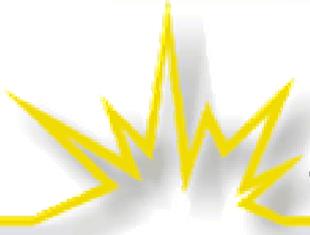
Consequences of Improper Subsidies

- Encourages inefficient consumption by the subsidized consumer
 - ❖ Why invest in efficient end-use or co-generation if your rates are very low?
- Discourages efficient consumption by those whose rates are raised to pay the subsidy
 - ❖ Can slow economic growth
 - ❖ Promotes uneconomic bypass by those high-paying customers



Tough Call: Economic Development Rates

- Goal: Promote new industry without imposing new costs on existing customers
- Special low rate is justified ONLY IF:
 - ❖ Rate exceeds marginal cost;
 - ❖ The new sales are incremental;
 - ❖ The consumption would not occur without the discount (the "but-for" test);
 - ❖ Efficiency measures are installed too (why give discounts to wasteful growth?)



Justified Discounts

- Discounts may be justified if:
 - ❖ The sales would not have occurred without the discount;
 - ❖ Revenues exceed marginal costs;
 - ❖ The consumption meets other public goals (e.g., employment, electrification);
 - ❖ The consumption is not wasteful
- Can apply to rural electrification, low income customers, new business

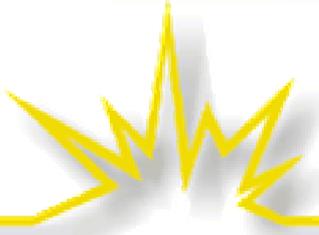
Be Careful

About Subsidies

- Subsidies exist, whether intended or not
 - ❖ It is very important that regulators know the utility's costs and rate structures, so they know where and how large the subsidies are
- Subsidies affect behavior and costs
 - ❖ Inefficient use of the electric system increases everybody's costs

Electric System Public Goals

- 
- Appropriate, and often necessary, to support public purposes through the electric system
 - Universal service: rural areas, low-income customers
 - Energy efficiency investments
 - Renewable energy investments
 - Research and development
 - Consumer education



What Public Benefits Should the Electric System Support?

- Rates are not general taxes, BUT the electric grid is a key public system. Where is the balance?
- Useful questions:
 - ❖ Directly related to electric service?
 - ❖ Promote the long-term public good?
 - ❖ Minimal price and market distortion?
 - ❖ Correct a market failure? Correcting market failures is **not** a market distortion



Electric System Public Purpose Mechanisms

- Many successful examples
- Criteria:
 - ❖ Within regulatory authority
 - ❖ Compatible with competition and industry structure
 - ❖ Funding for public purposes is competitively-neutral, non-bypassable, and fair to customers
 - ❖ Regulatory oversight of the program is retained

Public Purpose Examples

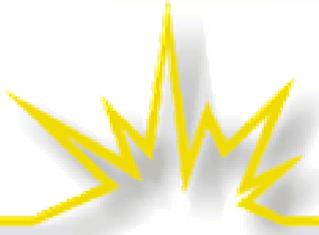


➤ Energy Efficiency Programs

- ❖ Integrated Resource Planning, utility DSM programs
- ❖ Systemwide funding: UK Energy Savings Trust; California Energy Commission
- ❖ Vermont's franchised "Efficiency Utility"

➤ Renewable Energy

- ❖ Renewables portfolio standard
- ❖ Renewables fund and bidding



More Examples

➤ Universal Service:

- ❖ Rural build-out requirements
- ❖ Geographically averaged distribution rates
- ❖ Low-income subsidies
- ❖ Rural electrification subsidies (grid- and off-grid options)
- ❖ Targeted efficiency programs

➤ Research and Development:

- ❖ Pooled funds from all market participants for public-purpose R&D