

Clean Solutions: What's In It For Utilities?

David Moskowitz

NARUC Summer 2005

Austin Texas



www.raponline.org

The Regulatory Assistance Project

177 Water St.

Gardiner, Maine 04345

Tel: 207.582.1135

Fax: 207.582.1176



Clean Solutions

- More than 20 years of experience demonstrates energy efficiency is a very large and low cost resource.
- Energy efficiency is clean, cheap, and fast.
- It reduces
 - market prices for gas and power,
 - market power,
 - transmission congestion,
 - Air and water pollution
 - and it improves reliability
- Energy efficiency is good for all except utilities
- The barrier is incentives

It's The Incentives, _____

- Regulators believe in the power of incentives.
- Restructuring motivated by belief in incentives.
- Those that go slow on restructuring believe incentives are powerful and monitoring and enforcement so weak that consumer harm may result.



Incentive Regulation

- All regulation is incentive regulation
- Do you really know how utilities make money given regulatory and accounting practices in your state?

Bottom Line For Most States



- Every kWh sold adds to profits
- Every kWh lost to efficiency or customer side distributed resources cuts profits
- AND the numbers are overwhelming
- **If this continues there is little chance of any significant utility investment in these resources**



How the System Works

- **Regulation and utility profits do not work as you might expect!**
- Once case ends prices are all that matter
- Profits = revenue - costs
- Revenue = price * volume
- Costs are mostly unrelated to volume *in the short run* (that is, from rate case to rate case)
- Thus: if efficiency causes volume to decrease, utility profits drop

The Numbers Are Overwhelming




- Typical Vertically Integrated Utility
 - 1% sales loss yields 5% cut in profits!




Good News

- It wasn't always this way - coupling was not an intentional policy
 - **traditional regulation was decoupled**
 - **price=marginal revenue=marginal cost: incremental sale had no effect on profits**
- Utility costs have been shifted to consumers or deferred for later recovery
 - Fuel and purchased power clauses
 - AFDC

Better Pricing Is Not The Solution

- 
- Better prices to consumers, revealing the full marginal cost, is a good idea and should be done
 - BUT better prices including TOU prices, inverted block rates, critical on-peak prices, and others do not solve the utility's financial problem and, even worse, create a new set of perverse incentives
 - Example: TOU prices move most utility profits to on-peak sales


Restructuring Does Not Help

- 
-
- **Same company divested of generation**
 - **1% sales loss 11% loss of profits**
 - Some states' treatment of stranded costs (e.g., Maine's) actually double the disincentive for energy efficiency



Solutions?

- Back to the basics – fix the incentives
- Time to revisit and renew NARUC's 1989 resolution: **“Reform regulation so that successful implementation of a utility's least-cost plan is its most profitable course of action”**
- There are many fixes
- The best: Flexible Revenues Caps
 - Revenue or revenue per customer caps are a proven methods for restructured and non-restructured states
 - Increasingly used for regulating transmission companies and gas companies in the US and abroad



NARUC 1989 Resolution

➤ **Resolution in Support of Incentives for Electric Utility Least-Cost Planning**

- **WHEREAS**, National and International economic and environmental conditions, long-term energy trends, regulatory policy, and technological innovations have intensified global interest in the environmentally benign sources and uses of energy; and
- **WHEREAS**, The business strategy of many electric utilities has extended to advance efficiency of electricity end-use and to manage electric demand; and
- **WHEREAS**, Long-range planning has demonstrated that utility acquisition of end-use efficiency, renewable resources, and cogeneration are often more responsible economically and environmentally than traditional generation expansion; and
- **WHEREAS**, Improvements in end-use efficiency generally reduce incremental energy sales; and
- **WHEREAS**, The ratemaking formulas used by most state commissions cause reductions in utility earnings and otherwise may discourage utilities from helping their customers to improve end-use efficiency; and
- **WHEREAS**, Reduced earnings to utilities from relying more upon demand-side resources is a serious impediment to the implementation of least-cost planning and to the achievement of a more energy-efficient society; and
- **WHEREAS**, Improvements in the energy efficiency of our society would result in lower utility bills, reduced carbon dioxide emissions, reduced acid rain, reduced oil imports leading to improved energy security and a lower trade deficit, and lower business costs leading to improved international competitiveness; and
- **WHEREAS**, Impediments to least-cost strategies frustrate efforts to provide low-cost energy services for consumers and to protect the environment; and
- **WHEREAS**, Ratemaking practices should align utilities pursuit of profits with least-cost planning; and
- **WHEREAS**, Ratemaking practices exist which align utility practices with least-cost planning; now, therefore, be it

- **RESOLVED**, That the Executive Committee of the National Association of Regulatory Utility Commissioners (NARUC) assembled in its 1989 Summer Committee Meeting in San Francisco, urges its member state commissions to:
 - 1) consider the loss of earnings potential connected with the use of demand-side resources; and
 - 2) adopt appropriate ratemaking mechanisms to encourage utilities to help their customers improve end-use efficiency cost-effectively; and
 - 3) otherwise ensure that the successful implementation of a utility's least-cost plan is its most profitable course of action.

➤ Sponsored by the Committee on Energy Conservation, Adopted July 27, 1989



Learn More

➤ **Profits & Progress Through Least-Cost Planning**

➤ http://www.raponline.org/showpdf.asp?PDF_URL='Pubs/General/P%26plcp%2Epdf

➤ **Profits and Progress Through Distributed Resources**

➤ http://www.raponline.org/showpdf.asp?PDF_URL=Pubs/General/ProfitsandProgressdr.pdf

➤ **Performance-Based Regulation For Distribution Utilities**

➤ http://www.raponline.org/showpdf.asp?PDF_URL=%22Pubs/General/DiscoPBR.pdf%22

➤ **Performance-Based Regulation in a Restructured Electricity Industry**

➤ <http://www.synapse-energy.com/Downloads/pbr-naruc.doc>