

# Clean Solutions: What's In It For Utilities?

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The Natural Gas Crisis: Finding Clean Solutions

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# Incentive Regulation

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- All regulation is incentive regulation
- Consider: Energy Star products save energy at a cost of about 1 cent/kWh, a small fraction of the cost of power supply.
- Do you know what incentives utilities have to promote Energy Star?
- Do you really know how utilities make money?



## Bottom Line

- 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

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- **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: Typical Vertically Integrated Utility



➤ 1% sales loss yields 5%  
cut in profits!




# Good News


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- It wasn't always this way
- Utility costs have been shifted to consumers or deferred for later recovery
  - Fuel and purchased power
  - AFDC
- Good news: it was not intentional and it can be fixed
- **1989 NARUC Resolution: Reform regulation so that successful implementation of a utility's least-cost plan is its most profitable course of action**

# Better Pricing Is Not The Solution

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- 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

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- **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?

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## ➤ Prices?

- Some utilities have proposed to move all or most revenue to fixed monthly charges
- This would be a mistake for several reasons

## ➤ 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



# Learn More

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

➤ [http://www.raponline.org/showpdf.asp?PDF\\_URL='Pubs/General/P%26plcp%2Epdf'](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](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](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>