Can Real-Time Pricing Be The Real Deal?

Anthony Star
Director of Policy and Evaluation
Community Energy Cooperative

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Are the Rules Right?

• For the most part, no!
• From a consumer point of view, the electricity markets suffer from
  – Lack of transparency
  – Lack of proper valuation of risk/rewards
  – Lack of proper connection between wholesale and retail markets
Can It Be Done Right?

• Maybe

• A case study from Illinois: The Energy-Smart Pricing Plan\textsuperscript{SM} (2003-2006)
  – Real-time Pricing pilot for residential customers
  – Customers
    • Saved money
    • Reduced peak demand
    • Loved the program
How Could This Be?

• We addressed transparency
  – The rate structure was simple
  – Prices were a pass through of wholesale prices, they were public and we took efforts to educate participants about them

• We unbundled and shifted risk
  – The rate was **not** revenue neutral, participants could save just by taking on the volatility of the market

• The future of the idea rests on demonstrating the connection between retail and wholesale rates
After 100+ Years of Passive Customers, You Need New Tools

- Prices available through web and phone
- High price alerts via phone, e-mail
- Energy management/price response tools
  - Information about usage
  - Instructions and tips on how to reduce usage during peak periods
  - Ongoing energy efficiency information
Price Volatility Is OK

Average Energy Prices Paid 2003-2006
Peak Demand Reductions on a Hot Summer Day

ESPP without enabling technology
ESPP with air conditioner cycling
Expanding Real-Time Pricing in Illinois

- Illinois retail prices are now determined by a New Jersey-style auction
  - RTP default service for large C&I
  - All customers have an option to take RTP
- 1997 deregulation did not envision information, education and programmatic support needed to make RTP work for residential customers
- Legislation enacted spring 2006:
  - Creates a residential RTP program and specifies roles for the utility and others
  - Creates a framework that justifies including costs in overall rate base
Assessing The Potential Benefits of RTP

• Illinois legislation required assessment of net benefits to consumers from program, including consideration of:
  – Improvements to system reliability and power quality
  – Reduction in wholesale market prices and price volatility
  – Electric utility cost avoidance and reductions
  – Market power mitigation, and
  – Other benefits
Potential Annual Benefits

- Assumes 10% of residential customers participate.
- Program cost approximately $16 million per year (including metering using today’s technologies and costs)

[Adapted from CUB/City of Chicago Exhibit 3.5, Testimony of Bernie Neenan in ICC Docket 06-0617]
The Positive Impact of Improving Participant Response

Non-participant benefits rise more than participant benefits!

[Adapted from CUB/City of Chicago Exhibit 3.6, Testimony of Bernie Neenan in ICC Docket 06-0617]
The Illinois “Grand Experiment”

• That was all theory, now Illinois needs to demonstrate this through implementation

• Cooperative is launching new Ameren program (Power Smart Pricing), Comverge working on new ComEd program (The Watt Spot)

• After four years, Illinois Commerce Commission will assess programs to determine whether they are generating net benefits to residential rate payers and will decide whether to continue, modify or terminate programs
What We’ve Learned

• Restructuring focused mostly on the supply side and trusted the demand side would somehow organize itself. It didn’t and it needed active intervention, otherwise you end up with a one-sided market.

• We were able to do this in a time of relatively abundant capacity, not during a time of crisis. This allowed for much more flexibility and innovation. A crisis is not the time to invent something new.

• Its about more than just cutting peak demand. Its about a fair allocation of risk and rewards.
Can Consumer/Corporate Cultures Embrace These Opportunities?

• Still waiting for the demand side iPod
  – We have most of the pieces we need, we don’t have the perfect package

• Inertia remains the most powerful force in the universe
  – But, once customers are on new pricing programs, they want to stay on them

• The fear of rising energy prices
  – Can we act wisely before it’s too late?
For More Information

Anthony Star
Director of Policy and Evaluation
Community Energy Cooperative
2125 West North Avenue
Chicago, IL 60647
773/269-4017
astar@energycooperative.org