



*EUCI Presents a Conference on:*

# Connecting Wholesale and Retail Electricity Markets —

**A Durable (Not So Volatile) Market Design**

**April 2–3, 2003**

*Co-Sponsor and Program Coordinator*



*Co-Sponsor:*

**EPRI** Electric Power Research Institute

*and* **SchlumbergerSema**



## **Retail Strategies that Connect Wholesale and Retail Markets**

**(Pricing, Revenues, and Risks)**

**April 4, 2003**

**Marriott Denver City Center  
Denver, Colorado**

# Connecting Wholesale and Retail Electricity Markets — A Durable (Not So Volatile) Market Design

## Conference Overview

The conference focuses on the crucial linkage between wholesale and retail markets. We think of the market structure as a triangle with three key elements — regulatory policy, prices, and technology. Only when market players understand and capitalize on these three elements, can they then safely play in or create a stable energy market that encourages investment, efficient use of energy, and a healthy industry.

One of the fundamental flaws of the traditional regulated utility market structure has been the lack of incentives to provide retail customers with efficient price signals that reflect conditions in the wholesale market. In a “Catch-22” scenario, efficient pricing structures are not advanced in part because the needed technology is unavailable or too expensive. Yet the regulated industry does not encourage pricing innovations that would make the needed technology profitable.

Marketing restructuring and technological innovations offer the opportunity to correct market inefficiency. We have seen what happens without efficient retail pricing:

- Little or no demand response, even at high wholesale price levels
- Excessive wholesale price spikes
- Gaming and market power
- Poorly designed pilot pricing programs that fail

Continuing improvements to metering, communication and control technologies provide the infrastructure that is needed to implement successful pricing programs, and reach the full potential of demand response. These technologies will physically tie wholesale to retail markets. Finally, without complementary regulation that encourages a marriage of efficient pricing and technology, the progress toward more rational pricing is slowed.

Standard market designs that provide load-serving entities (LSEs) with efficient wholesale price signals in the form of locational marginal prices will produce half of an effective and complete market. However, a well-functioning power market needs incentives for LSEs to offer retail-pricing products that reflect wholesale cost conditions with minimal distortions. To ignore or under-appreciate this connection places the success of competitive restructuring in jeopardy, as evidenced in some of the early attempts in the U.S.

This conference covers both wholesale and retail issues focusing on the crucial linkages that must be maintained between these two markets.

This conference is designed for energy professionals who are concerned with how wholesale market design affects retail pricing strategies and vice versa. Topics covered will be relevant to companies living in both regulated and deregulated markets, and to retail or wholesale market managers/directors.

## Program Agenda

**WEDNESDAY APRIL 2, 2003**

**Break 9:30 – 10:00 a.m.**

**Registration and Coffee 7:30 – 8:00 a.m.**

**Welcome Introductions and Overview  
8:00 – 8:30 a.m.**

*Kelly Eakin, Vice President, Christensen Associates*

**KEYNOTE ADDRESS: 8:30 – 9:30 A.M.**

**“Energy Management: An Efficient Market Made Durable  
With the Market Triangle-Regulation, Pricing and Technology”**  
*Art Rosenfeld, Commissioner, California Energy Commission*

**SESSION I: 10:00 - 11:30 A.M.  
THE POLICY ANGLE: POLICY’S ROLE IN  
OBTAINING EFFECTIVE MARKETS**

*Session Chair: Art Rosenfeld, Commissioner,  
California Energy Commission*

In creating a “Crisis Prevention” market, the first angle is established by the long standing social contract that exists between regulators and the public’s need for reliable and reasonably priced power. Regulation’s role has certainly changed, but it continues to be a market manager. This session

looks at some market trends and how partnerships are working between wholesale and retail markets.

#### “Trends and Status of Restructuring – Wholesale Markets”

- Status of regions and RTOs
- Issues, limitations, and thinking about the possible
- What can be achieved, when, and how good is it

*Robert Camfield, Vice President, Christensen Associates*

#### “Price Response in Residential? Absolutely!”

- Load relief when you need it: Gulf Power’s short-term residential program
- Program structure
  - Principles, goals and history
  - Where we are today
- Experience from the January cold snap
- Is the program applicable elsewhere

*Margaret Neyman, General Manager-Marketing, Gulf Power Company*

#### “The Partnership in Action – Resource Adequacy”

- This is one tough playground
- Opportunities and challenges for providing near-term resource contingency value
- How can demand response provide value in assuring resource adequacy in the long term?

*Victor Niemeyer, Technical Leader – Power Delivery & Markets, Electric Power Research Institute*

### Group Luncheon 11:30 a.m. – 1:00 p.m.

### SESSION II: 1:00 – 3:15 P.M. STANDARD MARKET DESIGN – ONE YEAR LATER

*Session Chair: Brad Kranz, Program Coordinator-Market Services, New York ISO*

FERC is attempting to meld the best elements of the present ISO markets into a Standard Market Design applicable to all jurisdictional utilities. What key elements of Standard Market Design appear to be reaching consensus? What key elements are controversial? And finally, a free-wheeling discussion of what people think the market might look like in 2 years.

#### “Standard Market Design Issues: A 2003 Perspective”

- Consensus: New England / New York and PJM / and MISO?
- Key Elements of Agreement:
  - Move Forward;
  - Refine, Based on Experience;
  - Enhance Regional Approaches;
  - Details Do Matter
- Continuing Controversy: Southeast/ Northwest
- Key Elements of Disagreement:
  - "One Size" SMD

- Washington vs. The States
- Governance
- Mandatory Requirements

*William Hogan, JFK School of Government, Harvard University*

#### “SMD – An Update on FERC’s Initiative”

*Richard O’Neill, Chief Economist-Office of Markets, Tariffs and Rates, Federal Energy Regulatory Commission (invited)*

#### Panel Discussion

*Bill Hogan, Richard O’Neill (invited), Art Rosenfeld*

### Break 3:15 – 3:45 p.m.

### SESSION III: 3:45 – 5:30 P.M. RETAIL CONNECTIONS IN WHOLESALE MARKET DESIGN

*Session Chair: William Hogan, JFK School of Government, Harvard University*

Market structure has opened some Pandora’s boxes as the industry and regulators try to jockey around for appropriate roles that walk the tight-rope of being a competitive business with a social obligation to serve. This session looks at some of the issues associated with tying retail to wholesale markets-issues and opportunities.

#### “Demand Response: Pricing Payments, Incentives, Subsidies, Transfers and Benefits”

- Who pays and why
- Should there be incentives/subsidies
- A review of 2001/2002 demand response programs and an assessment of 2003

*Kelly Eakin, Vice President, Christensen Associates*

#### “New York ISO Wholesale Markets – Products Supporting Retail Markets”

- Overview – New York industry restructuring, wholesale market description
- Programs of retail interest – Consumer protections, demand response
- Load participation in energy and ancillary services
- Opportunities under consideration
- Future of ISO markets

*Brad Kranz, Program Coordinator-Market Services, New York ISO*

#### “PJM Programs that Open Doors to Retail Access”

- Keeping it Simple
- PJM eSchedule System
- Agency Agreements
- Billing
- Demand Side Response

*Mark Gilrain, PJM Interconnection, LLC*

**SESSION IV: 8:30 – 10:00 A.M.  
THE PRICING ANGLE-PRICING FOR  
DEMAND RESPONSE**

*Session Chair: TBA*

Policy alone cannot make the energy industry markets effective. Pricing is an effective and efficient way to match value and need. As such it encourages efficient use and provides a check on market power. This session describes several of the programs designed to encourage demand response around the nation.

**“Regulatory Policy and Demand Response”**

Demand response (DR) has been identified by some as the “missing link” in wholesale electricity markets. While the answer to whether DR will attain a lasting role in the markets is ultimately a matter of economics, the outlook is also strongly influenced by regulatory policies and how they condition the business environment.

- The importance of economically efficient demand response in the market
- Market conditions and rules that are supportive of effective demand participation
- Whether some policies may be inadvertent barriers to efficient demand response
- Some recent regulatory orders, and various regional approaches

*Tim McClive, Chief Economist, Edison Electric Institute*

**“SCE’s New Program Initiatives”**

- Highlights of SCE’s programs and experience as well as an overview of new initiatives
- How DR fits into overall procurement initiatives

*Mark Wallenrod, Manager-Pricing and Wholesale Tariff Operations, Southern California Edison*

**“Effective Retail Demand Response”**

- Description of the major issues and obstacles to incorporating retail demand response into wholesale market design
- Distinct approaches to demand response
  - Demand bidding
  - Direct load management
  - Dynamic pricing
- The importance of program design - what works, what doesn’t and why
- The challenge of quantifying actual load response and its economic benefit

*Kelly Eakin, Vice President, Christensen Associates*

**Break 10:00 – 10:30 a.m.**

**SESSION V: 10:30 A.M. – 12:30 P.M.  
RETAIL PROGRAMS-TALES FROM THE TRENCHES,  
COSTS/BENEFITS AND WAR STORIES**

*Session Chair: Mark Wallenrod, Manager-Pricing and Tariff Operations, Southern California Edison*

**“The Dollars and Sense of Fixed Bills in a Volatile Wholesale Market”**

Isn’t a fixed bill product an anathema to the goal of connecting retail products to wholesale markets? Can a utility afford to offer such a retail product given wholesale price volatility and the wrath of Mother Nature? The key is to use market-based principles and sound risk fundamentals to price the fixed bill product correctly. By doing so the product makes both dollars and sense. This presentation covers:

- Market potential
- Product risk
- Expected change in customer usage
- Bill offer development
- Risk management
- Customer satisfaction and retention

*Michael O’Sheasy, Vice President, Christensen Associates*

**“Retail Pricing Implications and Opportunities”**

- The presence of an RTO: are retail markets held harmless?
- Is it “Revealed Prices,” “Unbundling,” or “Revealed Unbundled Prices?”
- Yes, the implications are significant: what are they and what retail service providers must do
- Strategies for coping with and succeeding from unbundled wholesale markets

*Jon Kubler, Director-Pricing Products and Rate Administration, Georgia Power Co.*

**“Hourly Pricing at Duke: Applications, Results and Surprises Along the Way”**

Duke has been active in RTP (HP) programs for over 10 years. This talk covers different applications for it, and includes some analytical results demonstrating the nature and extent of price response

- Economic development
- Load retention
- Customer demand response to prices
- Dispatch of customer generators against HP prices, etc.

*Thomas Taylor, Sr. Economist-Rate Department, Duke Power*

**“Retail Market Challenges and Sementation – Large Commercial and Industrial Customers – New 2003 Study Results”**

*I know all customers are not alike. I’ve segmented them. So why don’t large customers do what I think is logical? If it’s lower cost, why don’t they respond to my program?*

Results from the E Source 2003 Corporate Energy Managers survey

*Ken Black, Managing Director, Platts Research & Consulting*

**Group Luncheon**  
**12:30 – 1:30 p.m.**

**SESSION VI: 1:30 – 3:00 P.M.**  
**THE TECHNICAL ANGLE:**  
**MAKING IT POSSIBLE**

*Session Chair: Michael O'Sheasy, LRCA*

Pricing and Policy fall flat without the technologies to implement the programs. This session looks at state-of-the-art PRACTICAL and cost effective technical advances

**“The Technical Angle – Making it Possible”**

- Technology & functionality overview
- Market trends
- Economics and Barriers to Implementation
- Benefits realization

*Ivo Steklac, Vice President, SchlumbergerSema*

**“Implementation – New Innovations, Costs, Customer Response”**

- Implementation issues
- New innovations
- Costs
- Customer response

*Frank Hyde, Product Manager, EnerLink Product Line, SCT Global Energy, Utilities, and Communications Solutions*



## **Retail Strategies that Connect Wholesale and Retail Markets**

**(Pricing, Revenues, and Risks)**

This is a workshop for retail energy pricing professionals tasked with the responsibility to construct pricing products for both regulated and competitive markets. This workshop recognizes that effective retail prices must be designed from the perspective of customer/corporate value, and must account for expected wholesale price realities.

**Registration and Coffee 8:00 – 8:30 a.m.**

**Workshop Timing: 8:30 a.m. – 12:00 noon**

**Price Building Blocks 8:30 – 10:00 a.m.**

- Costing and break-even prices
- Recognizing and using volatility as a price design tool

- Customer response and price elasticity
- Setting margins: establishing a mark up that can be defended
- Constructing a retail forward price

**Break 10:00 – 10:15 a.m.**

**The Product Line-UP 10:15 - Noon**

- Flat bills
- Dynamic TOU rates
- Buy-back plans
- Price caps and other insurance options
- Market-based interruptible and curtailable rates

### **ABOUT THE INSTRUCTORS:**

**B. Kelly Eakin, Ph.D.** (University of North Carolina-Chapel Hill, 1986) is Vice President. Dr. Eakin is a specialist in the economic and financial aspects of competitive product pricing. In addition, he has experience with the organization and regulation of industries, and environmental economics. His major projects in the energy industry have included the development of innovative pricing and service designs, the assessment of customer price responsiveness and product choice, and analyses of competitive impacts of restructuring proposals. Dr. Eakin joined Christensen Associates from the U.S. Department of Agriculture (USDA) where he developed expertise in environmental and resource economics. Prior to his service with USDA, Dr. Eakin was on the faculty at the University of Oregon for seven years. At the University of Oregon, Dr. Eakin was active in the graduate programs for the Economics Department and the College of Business. His scholarly writings have been published in a number of prestigious journals including *The Review of Economics and Statistics*, *Journal of Human Resources*, and *Southern*

*Economic Journal*. Dr. Eakin also co-edited the book *Pricing in Competitive Electricity Markets*.

**Michael T. O'Sheasy, MBA** (Georgia State University, 1974) is a Vice President. From 1980-2001, Mr. O'Sheasy directed the development and implementation of real-time pricing and other innovative rate structures at Georgia Power Company, the largest operating company in the Southern Company system. These programs are the most extensive and successfully of any in the U.S. He was responsible for retail and wholesale rate filings and other regulatory requirements, and has routinely testified before various commissions on both costing and pricing. He has published numerous articles on pricing in several journals including the *TAPPI Journal*, *Public Utilities Fortnightly*, *Electric Perspectives*, *EPRI Journal*, *Energy Customer Management*, and *The Electricity Journal*. On a national media level, Mike has been interviewed in USA Today, Newsweek, and National Public Radio. He has been featured on the front page of the Wall Street Journal and has appeared live on CNN FN.

## ABOUT OUR CO-SPONSORS

**CHRISTENSEN ASSOCIATES** has provided a wide range of economic and engineering analyses to investor-owned, municipal, cooperative, and other publicly owned utilities since 1976. Christensen Associates has been at the forefront in the development and implementation of the industry's most innovative products, such as time-of-use, real-time pricing, market-based interruptible load programs, and fixed-bill products. We currently work with utilities to solve pricing and costing problems the power industry faces as it transitions toward market-based trading in both retail and wholesale markets. We are well known for helping utilities develop pricing and market management strategies in response to the changing regulatory and competitive environments.

**EPRI** creates science and technology solutions for the global energy and energy services industry. U.S. electric utilities established the Electric Power Research Institute in 1973 as a nonprofit research consortium for the benefit of utility members, their customers, and society. Now known simply as EPRI, the company provides a wide range of innovative products and services to more than 1000 energy-related organizations in 40 countries. EPRI's multidisciplinary team of scientists and engineers draws on a worldwide network of technical and business expertise to help solve today's toughest energy and environmental problems. **ELECTRIFY THE WORLD**

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## PROCEEDINGS

The proceedings of the Workshop and Conference will be published and one copy will be distributed to each registrant at the conference. Extra copies of the proceedings will be available at \$395.00 each.

## CONFERENCE LOCATION

A room block has been reserved at the Marriott Denver City Center, 1701 California Street, Denver, Colorado 80202, for the nights of April 1-4. The rate is \$149 single or double occupancy, plus applicable tax. Call the Marriott Hotel, (303)297-1300 or (800)228-9290 for reservations and mention the EUCI Conference to get the group rate. Make your reservations prior to March 11, 2003. Reservations after this date will be on a space available basis and **cannot be guaranteed at the conference rate.**

The Marriot is a three diamond, first class hotel located in the heart of downtown Denver, within walking distance of restaurants, shopping, plays and Coors Field.

## REGISTRATION INFORMATION:

For instant registration, please call (201)784-5389 or fax the Registration Form to (201)767-1928 .

**Register 3, Send 1 Free!!** Any organization wishing to send multiple attendees to these conferences may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

All cancellations received on or before February 28, 2003, will be subject to a \$195 processing fee. Written cancellations received after this date will create a credit of paid registration fee less \$195 administrative fee. This credit will be good for six months toward any other EUCI conference or publication. In case of conference cancellation, Electric Utility Consultants' liability is limited to refund of the conference registration fee only.

## REGISTRATION FORM

- Connecting Wholesale & Retail Electricity Markets, April 2-3, 2003: \$1,195, **Early Bird Special Before March 21, \$1,095**
- Retail Pricing Offers that Connect Wholesale & Retail Markets Workshop, April 4, 2003: \$595, **Early Bird Special Before March 21, \$545**
- Special Discounted Registration Fee for Attending Both Events: \$1,645, **Early Bird Special Before March 21, \$1,495**
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