

EUCI Presents a Seminar on:

Using Settlement to Increase Profits in ERCOT Nodal Market



Seminar Feedback from Previous Attendees

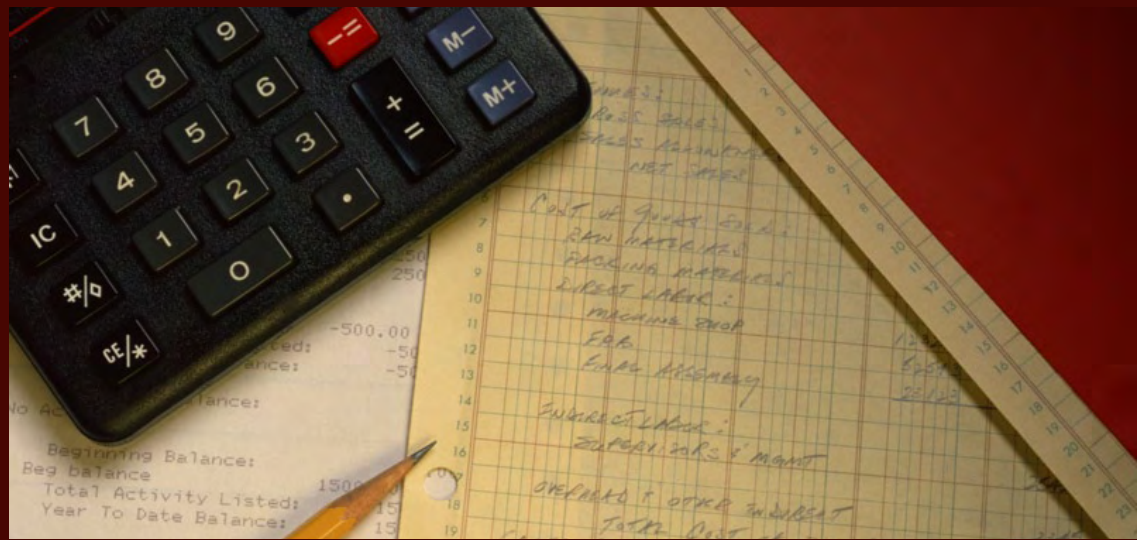
"Very well done course! Lots of good information packed in 2 days!" ... Market Participant who attended seminar in San Antonio

"Excellent overview on bid-to-bill issues for the Texas Nodal Market." ... Market Participant who attended seminar in Houston

"Very good material! Excellent insight!" ... Market Participant who attended seminar in Houston

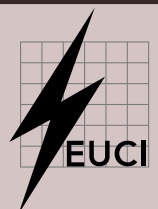
"I was very pleased with the content of the course and presentation of complex topics. Great course! I'd recommend it to anyone needing to know more about ISO settlements." ... Market Participant who attended settlement seminar in Denver

"The PCI instructors presented a very complex subject and made it very understandable and enjoyable for me and others. Great job!" ... Market Participant who attended settlement seminar in Anaheim



May 13 – 14, 2008

Crowne Plaza Houston-Downtown ⚡ Houston, TX



A Leading Provider of
Continuing Education for
Energy Professionals

Using Settlement to Increase Profits in ERCOT Nodal Market

May 13 – 14, 2008

SEMINAR OBJECTIVES

Sponsored by EUCI and PCI, this two-day seminar uses simple case studies to illustrate the settlement rules for the new ERCOT nodal market. In this workshop, you will learn how shadow settlement can be used as a strategic tool to check ERCOT invoices, identify settlement errors, submit settlement disputes, check the effectiveness of bidding strategies, and maximize the bottom-line profit for your assets in the new ERCOT nodal market. The seminar covers the following hot issues:

- What are the main objectives of the ERCOT nodal market?
- What are the key settlement charge codes in the new nodal market?
- How should you best prepare your settlement team for the ERCOT nodal market?
- What workflow processes and tools do you need to check the ERCOT settlement statements and invoices?
- What are the key differences in settlement rules between the existing ERCOT zonal market and the new nodal market?
- Why perform shadow settlement? Do you need to have your own shadow settlement software to check the ERCOT invoices?
- What are the main data sources for shadow settlement?
- What are the main causes for settlement disputes? What is the best way for managing settlement disputes?
- How can you use pre-settlement and post-analysis as strategic tools to provide feedback to traders on bidding strategies?
- What rules does ERCOT use to penalize units for uninstructed deviation?
- How does ERCOT compute RUC make-whole payments and charges?
- Will your plants collect enough revenues from the energy and ancillary service markets to cover their operating and capital costs?
- Do you receive proper credits from your CRR contracts?
- Do you receive any unexpected charges from CRR obligations due to negative congestion?
- What are the potential impacts of market power mitigation on settlement results?
- What IT infrastructure should you build to automate the bid-to-bill process?

WHO SHOULD ATTEND

- Back-office personnel responsible for checking the accuracy of the settlement statements and invoices issued by ERCOT
- Traders, portfolio managers, and risk managers who need to gain a better understanding of settlement rules, mitigation rules, and dispute resolution
- Power-plant managers who would like to understand the impact of the ERCOT nodal settlement on their plant profitability
- Genco executives who need a good understanding of the potential impacts of the new ERCOT nodal market on their genco profits and losses
- Employees of RTOs, attorneys, and regulators who need to understand the settlement implications of market rules, congestion management philosophy, and mitigation guidelines

Using Settlement to Increase Profits in ERCOT Nodal Market

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Seminar Agenda

Day1 Tuesday, May 13, 2008

Registration and Continental Breakfast: 8:00 – 8:30 a.m.

Seminar Timing: 8:30 a.m. – 5:00 p.m.

Group Luncheon 12:00 – 1:00 p.m.

Overview on ERCOT Nodal Market

- Why move to a nodal market?
- Key differences in market rules between zonal and nodal markets
- Market terminology
- Nodal market instruments
- Reviewing day-ahead workflow
- Understanding SCUC objectives for DA and RUC
- Reviewing real-time workflow for ERCOT market participants
- How does the two-step settlement work?
- Why use DAM energy-only bids and offers?
- Bid-to-bill timeline & challenges
- Key deployment milestones for the new ERCOT market
- Objectives of new ERCOT nodal market
- Differences in market rules between ERCOT and other LMP markets (MISO, PJM, ISO-NE, NYISO, and CAISO)

Uses of Nodal Locational Marginal Prices in Bidding & Settlement

- Why use nodal locational marginal prices?
- Key differences between zonal & nodal LMPs
- How are nodal LMPs computed?
- Understanding impacts of flowgates on congestion
- Computing congestion rent
- Using CRR contracts to hedge against congestion costs
- Where does ERCOT get the fund to pay CRR contracts?
- Can nodal LMPs be negative?
- Understanding shift factors
- Day-ahead settlement calculations
- How well can you forecast day-ahead nodal LMPs?

Running Shadow Settlement to Check Invoices for ERCOT Nodal Market

- Key differences in settlement rules between ERCOT zonal and nodal markets
- Understanding settlement statements and charge codes for ERCOT nodal market
- Settlement calendar for ERCOT nodal market
- Why perform shadow settlement?
- Key functions of shadow settlement software
- Mapping data sources to support shadow settlement
- Downloading settlement statements and invoices from ERCOT server
- What meter data do you need to download to compute real-time settlement?
- What are the most common causes for settlement disputes?
- Managing settlement disputes
- Goals for settlement allocation

Agenda Continued on Next Page

About EUCI

EUCI is a leading provider of conferences, workshops, courses, and webinars designed exclusively for the energy industry. We seek to create a forum for professional communication and exchange knowledge and ideas among energy industry professionals and others interested in the industry.

Join the thousands of others who have attended our events since 1987 and see why they keep coming back.

Using Settlement to Increase Profits in ERCOT Nodal Market

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Seminar Agenda

Day1 Tuesday, May 13, 2008 (Continued)

Understanding Settlement Rules for Generators

- Understanding 3-part energy offers for generators
- What is current operating plan?
- Computing day-ahead & real-time payments & charges for generating units
- Market principles behind make-whole payments & charges
- Computing day-ahead make-whole payments for generators
- Who will pay DA & RUC make-whole charges?
- Understanding RUC clawback charges
- Examples illustrating day-ahead and real-time settlement for generators
- Computing penalties due to uninstructed deviation

Day2 Wednesday, May 14, 2008

Continental Breakfast: 8:00 – 8:30 a.m.

Seminar Timing: 8:30 a.m. – 4:00 p.m.

Group Luncheon: 12:00 – 1:00 p.m.

Settlement Rules for Loads & Transactions

- Computing day-ahead & real-time charges & credits for loads
- Examples illustrating DA & RT settlement for loads
- Settlement charge codes for energy, capacity, and A/S trades
- Can settlement location influence bottom-line profits of energy trades?
- How should we schedule units that are used to serve energy trades?
- Understanding settlement implications for submitting self schedules
- Why use DAM energy-only bids and offers?

Settlement Calculations for Ancillary-Service (A/S) Products

- Key changes in A/S procurement and pricing in ERCOT nodal market
- How does ERCOT compute marginal prices for ancillary services?
- Impacts of co-optimization on LMPs and A/S prices
- Case studies to illustrate day-ahead and real-time settlement calculations for A/S products
- How does ERCOT allocate A/S charges?

Using Pre-Settlement as Strategic Tool to Provide Feedback to Traders

- Objectives for running pre-settlement
- Using pre-settlement results to provide feedback to traders on effectiveness of day-ahead and real-time bidding strategies
- Using settlement results to provide feedback to plant managers on plant performance
- Using settlement results to build performance metrics
- Settlement forensics – where front & back offices meet
- Why does the front office need to understand settlement?

Agenda Continued on Next Page

Seminar Feedback from Previous Attendees Continued

"I got a lot out of the course... Course brought together insights into concepts that I am just beginning to understand after 4 months in the settlement area." ... Market Participant who attended settlement seminar in Cincinnati

"Very informational! Good balance between overview and details." ... Market Participant who attended settlement seminar in Anaheim

Using Settlement to Increase Profits in ERCOT Nodal Market

May 13 – 14, 2008

Seminar Agenda

Day2 Wednesday, May 14, 2008 (Continued)

Understanding Settlement Rules for CRR Contracts

- Types of CRR contracts
- Understanding PCRR contracts
- Settlement calculations for CRR contracts
- Using settlement results to verify effectiveness of CRR contracts
- CRR credit requirements

Impacts of Market Mitigation on Settlement

- Objectives and focus of market monitoring
- Definition of market power
- Nodal market mitigation rules
- Using SCED results to mitigate real-time offers
- Impacts of IMM interventions on settlement results

Course Review & Round-Table Discussion

INSTRUCTORS

Khai Le, Vice President, PCI: Over the past 31 years, Khai Le has conducted 450+ seminars on market-based operations, shadow settlement, RTO operations, bidding strategies, and portfolio optimization for utilities and RTOs worldwide. He is currently working with market participants in ERCOT, CAISO, MISO, PJM, and SPP to deploy the PCI Generation Supply Management System (PCI GenManager, PCI GenTrader and PCI GenPortal) to formulate and evaluate bidding strategies. Khai authored over 100 technical papers on unit commitment, hydro-thermal coordination, emission dispatch, optimization methods, post analysis and short-term planning. Five of his papers have received awards. Khai received his BS from Harvey Mudd College and his MS from Carnegie Mellon University. He is a Fellow of the IEEE and a Registered Professional Engineer in Pennsylvania.

Doug Logan, Vice President, PCI: Dr. Doug Logan is a recognized expert on market design, shadow settlement, CRR, and market mitigation. Doug actively participates in a number of ERCOT task forces (COPS, TPTF, and TAC). As chief designer of the PCI GenManager settlement module, Doug is currently working with market participants in ERCOT, CAISO, MISO, PJM, and SPP to build the IT infrastructure to automate their settlement workflow. Doug received his PhD in Engineering-Economic Systems from Stanford University and is a registered Professional Engineer.

Scott Quin, Manager, PCI: Scott Quin has over 20 years' experience in the electric utility industry and over 15 years of practical operations experience in the wholesale electricity market place. His experience varies broadly from managing a 7000+ MW portfolio of assets and load in Florida to managing state of the art portfolio management software systems to providing subject matter expertise and consulting. As an active member of the Texas Nodal Transition Plan Task Force (TPTF), Scott has an excellent understanding of the new ERCOT nodal market from an operational, bidding, and settlement perspective. Scott is currently deploying the PCI GSMS suite to automate the bid-to-bill workflow for several ERCOT market participants. Scott received his BS in electrical engineering from Mississippi State University and his MS from the University of South Florida in engineering management.

PROCEEDINGS

The proceedings of the seminar will be published and one copy will be distributed to each registrant at the seminar.

SEMINAR LOCATION

A room block has been reserved at the Crowne Plaza Houston-Downtown, 1700 Smith Street, Houston, TX 77002, for the nights of May 12-13, 2008. Room rates are \$155 for single/double occupancy. Call 713-739-8800 for reservations and mention the EUCI seminar to get the group rate. Make your reservations prior to April 28, 2008. There are a limited number of rooms available at the seminar rate. Please make your reservations early.



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Upon successful completion of this event, program participants interested in receiving CPE credits will receive a certificate of completion.
Course CPE Credits: 15.5

There is no prerequisite for this conference.
Program Level 1: Intermediate
Delivery Method: Group-Live
Advanced Preparation: None

REMEMBER, EVERY 4TH REGISTRANT IS FREE!

REGISTRATION INFORMATION

For instant registration, call (201) 871-0474 or fax the Registration Form to (201) 767-1928

Register 3, Send 4th 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 April 11, 2008 will be subject to a \$195 processing fee. Written cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI conference or publication. This credit will be good for six months. In case of conference cancellation, Electric Utility Consultants' liability is limited to refund of the conference registration fee only. For more information regarding administrative policies such as complaint and refunds, please contact our offices at (201) 871-0474

EUCI reserves the right to alter this program without prior notice.

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**REGISTRATION CODE:
YOUR REGISTRATION CODE IS W402
PLEASE USE THIS WHEN REGISTERING FOR THE CONFERENCE**

PLEASE REGISTER THE FOLLOWING

- Using Settlement to Increase Profits in ERCOT Nodal Market Seminar, May 13-14, 2008: \$1495, **Early Bird Before May 2, 2008, \$1295**

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How did you hear about this event? (Direct email, Colleague, Speaker(s), etc.)

Name _____ Title _____
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