

## Nodal Exchange

Innovation of the Year

**EnergyRisk**  
Awards 2010

**T**he winner of our *Innovation of the Year* award is Nodal Exchange. Established in April 2009, Nodal Exchange is the first independent electronic commodities exchange to offer locational, or nodal, futures contracts to the organised North American electric power markets. Participants can manage basis and market risk using the exchange's offering of cash-settled futures contracts or over-the-counter transactions, all of which can be submitted to the exchange for clearing by LCH.Clearnet.

At its weekly auctions, the exchange offers on- and off-peak power contracts for the current month, up to the prompt, plus 11 months at approximately 1,800 hubs, zones and nodes across five Regional Transmission Organisation (RTO) markets. It also offers daily auctions for 88 locations (176 peak and off-peak contracts).

According to Paul Cusenza, chief executive officer of Nodal Exchange, the platform builds on the success of the existing RTO real-time and day-ahead markets. In addition to US Independent System Operators in New England (ISO-NE), New York (NYISO), the mid-Atlantic region (PJM) and the Midwest (MISO), in May 2010 the exchange added contracts for 35 locations in the newest nodal market region, California (CAISO). "We now represent all hubs and zones in California, plus all the key pricing points," Cusenza says.

The ERCOT region, which handles 85% of the electric load for the state of Texas, is expected to move to a nodal model by the end of 2010 and, after collating a year's worth of pricing data, Nodal Exchange will launch contracts for this region. Cusenza says: "Similar to what we did in CAISO,

which became a nodal market in April 2009, we will build up one year of price history for ERCOT before introducing new contracts so that we can understand how the volatility of the prices for those contracts generally works."

Since its 2009 launch, Nodal Exchange has developed an offering of more than 50,000 unique contract expiries that can be traded on the



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*Paul Cusenza, Nodal Exchange*

platform, a granularity unmatched by any other exchange in the world, according to Cusenza. Establishing a platform to support this intricate system and allow all transactions to be cleared required two major innovations: the Nodal Exchange auction engine and the use of value-at-risk (VaR) margining.

Participants can submit orders through the Nodal Exchange auction platform, which are matched and cleared through LCH.Clearnet. A range of order types can be matched, depending on whether participants want to buy outright energy at a single location, or wish to place a spread between different locations or over different time periods and aggregates of time periods.

"We selected this auction type because that was the best way of managing so many different contracts," says Ann Sacra, president and chief

operating officer of Nodal Exchange. "We chose VaR margining for basically the same reason. This is a much more intuitive approach because VaR margining is the core tool that risk managers really use. It allows participants to manage their portfolio on an aggregate basis using historical price volatility to naturally get all of the offsetting in the portfolio."

Both Sacra and Cusenza agree that designing a system that would support the trading of so many contracts was one of the major challenges in setting up Nodal Exchange. However, they describe the exchange as a community comprising LCH.Clearnet, the central counterparty, along with eight clearing members, seven brokers, more than 50

participants and a host of other parties such as data and analysis providers.

"This is really an award for the Nodal Exchange community in many respects," Cusenza says.

The exchange has already proved to be a valuable addition to the market, attracting praise from participants who see it as an innovative and important addition. Michael Cosgrove, head of commodities and energy brokerage, North America at GFI Group, says: "This group has structured something that fills a real need in the market. Putting up a list of locations and tenors that you can trade is one thing, but supporting that with tradable bids and offers requires a lot of analysis and courage. They didn't just name the spots, they said, 'here's where we'll buy and sell right now at these spots and that's a real service.'" ■

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