

JULY/AUGUST 2011
VOL. 3, ISSUE 13

**Energy
International
Quarterly**



THE END OF OIL?

***EIQ* investigates
peak oil, p.32**

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CanWEA spurs the
growth of Canada's
wind industry, p.38**

LOW RISK, HIGH REWARD

Nodal Exchange is a unique commodities exchange, and its methods minimize the risks associated with trading electric power

At a Glance

Location:

Vienna, VA

Founded:

2007

Specialty:

Electric power commodities exchange

FIELD NOTES

Unlike oil, which can be stored and shipped in barrels, electricity essentially needs to be created and used upon demand. Because of this, from a commodities-trading perspective, price risk is very much dependent on location—and the price of electricity at any given location can vary greatly based on three major components: the cost of energy, the cost of congestion, and the cost of loss.

Throughout the past decade, organized electric markets in the United States developed annual and monthly auctions on a granular, locational basis, in order to provide hedging and aid with congestion revenue-distribution in the organized market.

However, participants in these auctions believed there was a need for a central counterparty cleared commercial exchange, which could trade granular locations for electric power. “They were interested in seeing a commercial exchange form, because the only alternatives were the less frequent, ISO-managed auctions, as well as two other commercial exchanges,” explains Paul Cusenza, CEO of Nodal Exchange.

While the additional commercial exchanges offered approved products, the reach of the exchanges were limited to about ten locations—an amount that was unable to address the locational price risks associated

with electric power. Founded in 2007, Nodal Exchange, based in Vienna, Virginia, is a commodities exchange that specializes in providing innovative methods for participants to trade power, and attempts to mitigate the locational risks associated with electric power.


“You can look at the variability of the locational marginal price of electricity,” Cusenza says. “Although the majority of the cost of electricity is actually the cost of the energy, the variance in the locational price on any given day is equally likely to be based on the cost of the energy as it is to be based on the cost of congestion and loss, so you are missing more than half of the variability in price if you’re only hedging the energy cost.” By allowing trading on a granular basis, Nodal

Exchange permits its clients—typically large physical players that are load-serving entities and/or electricity generators—to avoid those risks.

“We use an auction-based model coupled with over-the-counter or brokered transactions,” Cusenza says. Trading occurs daily for monthly terms, and the auction system provides the flexibility to handle the abundance of locations. Offering over 1,800 locations and 50,000 expiries, Nodal Exchange serves not only electrical providers, but also financial players who “are able to take the alternative position and are willing to accept the risk of what the future price may be of electricity at a given location on the electric grid.”

LCH.Clearnet acts as the central counterparty for all transactions on Nodal Exchange. The central counterparty is the buyer to all sellers and the seller to all buyers, allowing

By allowing trading on a granular basis, Nodal Exchange helps its clients to avoid the risks associated with trading electric power.



TRADE SECRET Nodal's clients—mostly large load-serving entities and electricity generators—count on the firm to mitigate the risks associated with trading electric power.

FIELD NOTES

open positions to be netted. Each trading participant on Nodal Exchange has a relationship with a clearing member who margins them, and LCH.Clearnet margins the clearing members. This creates multiple layers of system protection. Cusenza explains, "Clearing has many benefits to participants including netting and [the ability] to trade with participants without having to worry about their credit rating or risk of default. It also benefits the economy by reducing systemic risk."

As a result of its many locations, Nodal Exchange uses Value-at-Risk (VaR) as the mechanism to do the initial margining, which allows for the most accurate margining of the markets. "It's the most risk-appropriate way to do it, and it also has the benefit of being capital-efficient because of the offsets," Cusenza says. "Other mechanisms are fine if you're using one or a few locations, but VaR is most appropriate with the many expiries we are offering."

Nodal Exchange launched its trading in April 2009; in that short period of time, the company has become an important player in the market. Cusenza explains: "Since our

launch, each quarter has grown in volume over the previous quarter, and we have become a significant venue for trading electric power in North America." Additionally, the firm received the Award of Excellence as a finalist in the Rising Star category at the 2010 Platts Global Energy Awards and was named "Innovation of the Year" at the 2010 Energy Risk Awards, proving its relevance as an innovative leader in the industry.

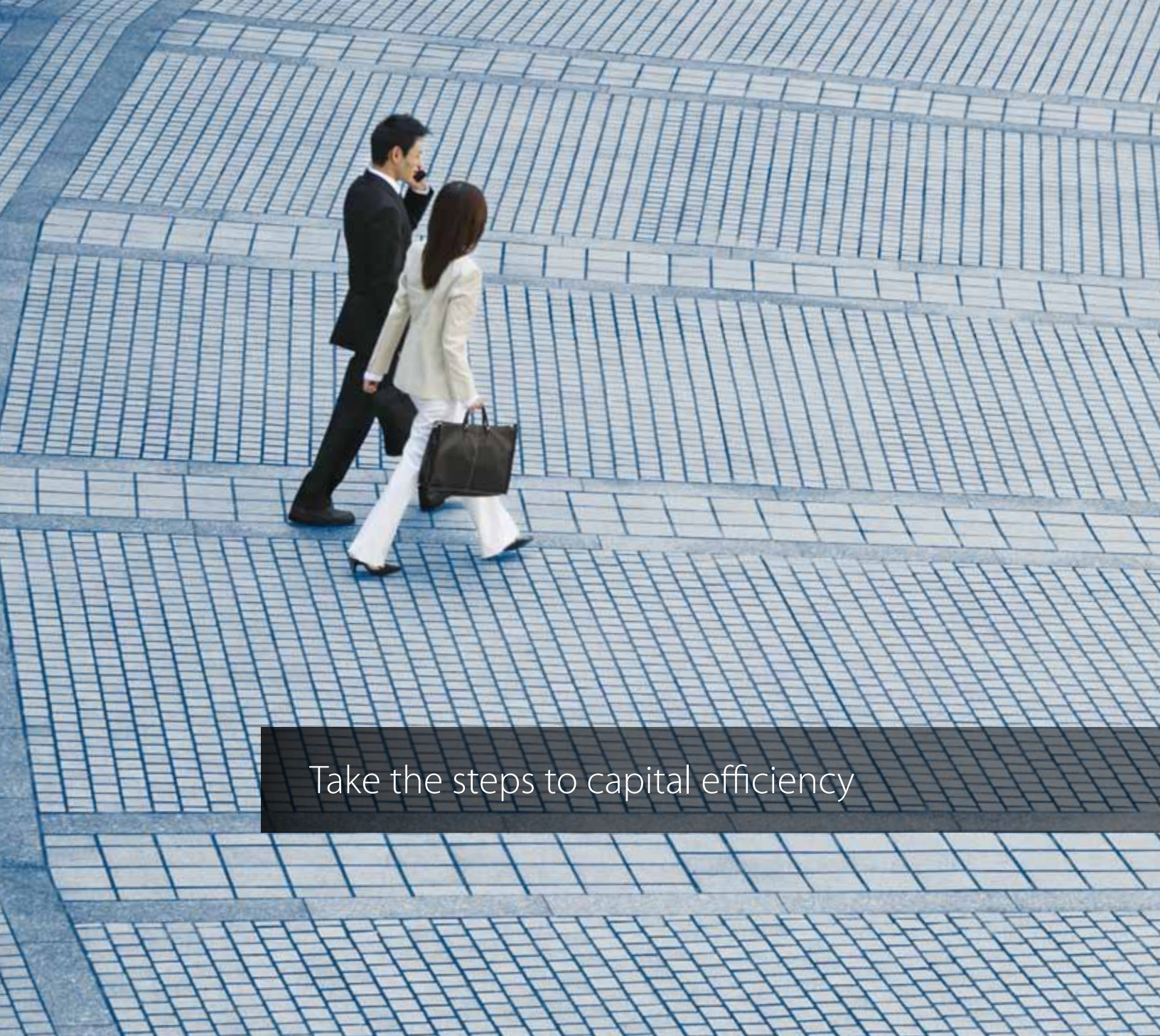
"We've recently introduced a natural-gas contract as well in order for our participants to

be able to cross-margin power with natural gas," Cusenza says. He explains that natural gas is a key fuel source used to generate electricity in the United States and branching out into additional commodities provides exciting avenues for the company's expansion. "I believe we offer our services very effectively," Cusenza says of the unique processes Nodal Exchange incorporates in its services—from its patented auction platform to using VaR margining. "We're very excited about our continued growth."

—TYLER COATES

NAVIGATING THE ENERGY EXCHANGE

Headquartered in London, LCH.Clearnet is the leading independent clearinghouse group in the world. "We're separate companies, but are very closely aligned," Nodal Exchange CEO Paul Cusenza states. "We have a clearing agreement to work together, and we are very close offering one integrated service to the market." LCH.Clearnet serves as the clearinghouse for a variety of exchanges and trading platforms worldwide. Its clearing members that support Nodal Exchange include ADM, Bache, Citibank, Goldman Sachs, Macquarie, Merrill Lynch, MF Global, Mizuho, and Newedge.



Take the steps to capital efficiency

NODAL

THE NEXT GENERATION OF POWER TRADING

VaR portfolio margining and cross margining of power and gas provide participants with outstanding capital efficiency.

Nodal Exchange and LCH.Clearnet also offer participants enhanced:

- Basis and credit risk management
- Granularity with contracts on more than 1,800 hubs, zones and nodes
- Trading flexibility with daily auctions and OTC broker platforms
- Price discovery with daily marks on more than 50,000 expiries

