

odal Exchange is the first commodities exchange dedicated to offering locational (nodal) futures contracts and related services to participants in the organised North American power markets.

Nodal Exchange builds on the success of the existing Regional Transmission Organization (RTO/ISO) Day Ahead and Real Time markets by allowing its participants to trade cash-settled contracts in a cleared market, enabling participants to effectively manage basis and credit risk.

The European caught up with Paul Cusenza, Chairman and CEO, Nodal Exchange to find out more about the North American power markets, and to gain an insight in the company's services and objectives.

# Q: Explain how the North American power markets operate.

Paul Cusenza: Over the majority of the United States, organised electric markets established as Regional Transmission Organizations or Independent System Operators (RTOs/ISOs) price power on a nodal (locational) basis. Through conducting both real-time and dayahead auctions for power on a nodal basis, the



RTO/ISO markets price power at thousands of granular locations on their networks. These auctions result in locational marginal prices that appropriately reflect the cost of, energy, congestion (which reflects transmission constraints) and loss (loss of power as it travels along the lines) at a given location on the grid.

The thousands of pricing locations in the US power markets distinguish them from other

global markets. The many pricing locations allow for better price signals for determining where to build new power generation and transmission lines and results in a lower average price of electricity because higher priced locations attract investment and competition. It is important to note that unlike oil, which can be stored for the future in barrels, or natural gas, which can be stored in tanks, electricity is transient.

With a few exceptions, such as hydroelectric pump storage systems, electricity is not generally stored and must be consumed as it is generated. Thus, the economics of electricity are intimately linked with the distribution of electricity.

Just like cars need roads to travel on, electricity needs transmission lines and just like rush hour can increase congestion so can peak demand for electricity.

Four broad categories for trading electric power forward in time in the United States provide market participants the ability to hedge. The first is generally referred to as the FTR or Financial Transmission Right market run by each of the RTOs/ISOs, although some RTOs/ ISOs use different names for these instruments, such as Congestion Revenue Rights. These are forward in time monthly term congestion spreads between locations that are awarded monthly in auctions run by the RTOs/ISOs for their separate markets. The second is the physically settled forward markets where participants trade bilaterally with each other. The third is the swaps market comprised of financially settled bilateral trades between market participants. The fourth is the cleared futures market with standardised contracts.

There are three exchanges offering cleared power futures in the US and Nodal Exchange is the newest entrant having launched in 2009 and having achieved about a 25 per cent market share of power futures open interest by 2014.

# Q: What services does Nodal Exchange provide?

**PC:** Until Nodal Exchange launched its services in April 2009, the complexity of the power markets and the associated technological sophistication of the systems required to serve them prevented the development of adequate forward markets to supply liquidity and allow complete hedging of power portfolios.

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## Q: Outline the types of risk that Nodal Exchange helps organisations manage.

**PC:** Essentially, there are two types of risk that we help organisations manage – price risk and credit risk. When you look at power prices, nobody really knows what the price will be in, for example, 2018. So, if you want to manage that price risk for 2018, you need to trade a forward contract to do that. However, if you do a trade for the price of power in 2018, the risk is that the counterparty of that trade won't be there in 2018 to pay up. So, you need to manage the credit risk as well. A cleared environment, like Nodal Exchange, allows traders to manage the credit risk, and we offer futures contracts to allow people to manage the price risk.

### Q: What do you offer that your competitors don't?

**PC:** Nodal Exchange is unique in offering not only settled electricity futures for major hubs and zones but also hundreds of granular contracts across nodal positions, which has given market participants a way to construct more precise and effective hedges in a cleared environment.

# Q: Nodal Exchange has come a long way since its inception in 2009. What do you attribute your success to?

**PC:** We have grown significantly in terms of open interest and trading volume since 2009. This growth is primarily due to our focus on better meeting the needs of the US power markets by offering the most granular and diverse set of locations for cleared power contracts.

We credit our success to our employees and a supportive trading community, including trading participants, brokerages, clearing members, LCH. Clearnet (our current clearing house), and information and systems providers to our market.

## Q: How are the new regulations across the energy market affecting Nodal Exchange?

**PC:** The Dodd-Frank Act reforms support the movement of bilateral non-cleared contracts to cleared markets like Nodal Exchange.

Nodal Exchange achieved a significant regulatory accomplishment in late 2013 when the CFTC approved its application to be registered



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as a designated contract market (DCM). Nodal Exchange began operation as a DCM on September 30, 2013.

This was a significant milestone for the exchange and its trading and clearing community. Nodal Exchange offers the most granular and diverse set of locations for cleared power contracts. Nodal Exchange, through these more granular contracts, better meets the hedging needs of the power markets and is aiding in moving the bilateral non-cleared contracts to a cleared market consistent with the goals of the G-20 countries and the Dodd-Frank Act.

Nodal Exchange was the only organisation designated in 2013 as a DCM and the third, first in energy, since the Dodd-Frank Act in 2010.

#### Q: What are your main objectives for the short-term?

**PC:** Since our launch in 2009, Nodal Exchange has become a significant part of the US power market obtaining a market share of about 25 per cent of all cleared power futures contracts open interest, and providing the most granular and diverse set of locations for cleared power contracts. We believe that we have the best offering for the market to allow people to hedge their power needs accordingly, and we seek to continue our growth.

One thing that we are extremely focused on in 2015 is a transition to self clearing. Nodal Exchange announced in November 2014 that we have formed a wholly owned subsidiary, Nodal Clear™, which submitted an application to the US Commodity Futures Trading Commission (CFTC) in December 2014 to be registered as a derivatives clearing organisation (DCO).

Since our launch in April 2009, all Nodal Exchange contracts have been cleared by LCH. Clearnet Limited. Nodal Exchange contracts will continue to be cleared by LCH.Clearnet until the transition to Nodal Clear is completed – planned for fall 2015 pending regulatory approval of Nodal Clear.

We see the decision to form Nodal Clear and apply for registration as a DCO as the next step to support our continued growth and to allow us to best meet the specific needs of the nodal power markets.

#### **Further information**

To find out more please visit: www.nodalexchange.com