

## Launching a New Clearinghouse to Manage Risks in 2016 and Beyond

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Just one short year ago, Nodal Exchange created a subsidiary called Nodal Clear and filed to be registered with the Commodity Futures Trading Commission as a derivatives clearing organization. We are very pleased with the Oct. 19 transition of clearing Nodal Exchange futures contracts to Nodal Clear. The process went smoothly and all has been running well, so we are very thankful for the efforts of our employees and all the entities that made this achievement in 2015 possible.

With the transition to Nodal Clear, trading volumes on Nodal Exchange have risen significantly. By mid-December, Q4 2015, volumes were already up 65 percent over all of Q3 2015 and 45 percent over all of Q4 2014. Responding to market needs, we introduced 66 new contracts on 31 new locations in the fourth quarter alone, including our first contracts in the Southwest Power Pool. In total, Nodal Exchange introduced more than 150 new contracts in 2015, including the first residual aggregate zonal futures contracts in PJM. In 2016, we expect to expand our contract set even more significantly as we continue to respond to the needs of our trading participants.

As an exchange and clearinghouse, we are really offering a risk management solution to the marketplace. Given the many risks energy market participants are likely to face in 2016, we are happy to assist with price, credit and liquidity risk management solutions.

To manage price risk, Nodal Exchange provides the ability for participants to hedge the future price of power with futures contracts.

In order to avoid the credit risk that comes with a forward-in-time transaction, Nodal Clear acts as the central counterparty and provides a credit risk management solution through clearing. When contracts are cleared Nodal Clear becomes the central counterparty, acting as the buyer to every seller and the seller to every buyer. To pro-

tect against the risk of default, the clearinghouse uses three risk mitigation mechanisms: collection of variation margin, collection of initial margin, and insertion of additional layers of protection (clearing members).

The first mechanism for addressing credit risk is to mark the futures contracts to market price, which Nodal Exchange does twice per day, and then collect variation margin from participants every time the price moves. Regularly collecting variation margin based on market prices prevents losses from accumulating.

The second mechanism for addressing credit risk is to collect initial margin. Initial margin is an amount collected from each counterparty to the transaction sufficient to handle a certain number of days of price movement to a defined probability level. For example, for the Nodal Exchange market, the clearinghouse calculates initial margin to cover a two-day price movement with 99.7 percent probability. In addition to holding initial margin related to price movement risk, initial margin is also held to address potential liquidity risk for a given contract. Initial margin is a way of ensuring that the defaulting party essentially pays for its own default by providing the funds for the clearinghouse to get out of the defaulting party's positions.

The third mechanism for addressing credit risk is having additional layers of protection. Clearing members are inserted between the clearinghouse and trading participants to guarantee the trades of their participants. With this structure, clearing members handle participant defaults and the clearinghouse is only at risk if the clearing member defaults. In addition, the clearing members also contribute to a guaranty fund which provides additional funding in the event that the defaulter's initial margin is not sufficient to cover the cost of closing its positions. The guaranty fund is part of a "default waterfall" which outlines the sequence of funds that can be used in the case of a

default and typically includes a significant capital contribution from the clearinghouse. Nodal Clear's contribution to the default waterfall is \$20 million of its own capital.

With these three main mechanisms for providing credit risk protection, parties can trade safely without having to worry about the credit quality of the entities they may be trading with.

Another area of risk management that futures contracts provide is liquidity risk management. Liquidity risk is the risk of not being able to find a counterparty to a trade at a fair market price. The advantage of futures contracts is that the contracts are all standardized. By having standard contracts it is easier to find multiple interested counterparties. Similarly, by trading futures contracts the entities do not have to worry about the credit quality of the counterparty. This opens up a wider number of entities to trade with, thus improving liquidity and the ability to trade at the best price. Also, by having a central counterparty, trades that offset each other can be netted, making the futures market more attractive and therefore more liquid. Trade prices and volumes, but not trading entities, on futures contracts are also transparent to the marketplace. This aids liquidity as it increases participant confidence that trading is at fair prices. Finally, the trading screen- or voice broker-assisted trades that support futures markets make it easy to trade with any participant in the market. Futures markets help with managing liquidity risk.

Managing risk is critical to effective business management in the energy markets. Futures markets, such as Nodal Exchange with clearing by Nodal Clear, provide participants an environment to be able to manage their price, credit and liquidity risk so that they can more effectively manage their business and achieve superior performance. We look forward to helping the energy markets manage the risk that 2016 will surely bring. [www.nodalexchange.com](http://www.nodalexchange.com).