PJM 2015-18 Term Outlook
Sparks to widen, but Marcellus-hungry fleet will crash the party.

Executive Summary
Monumental changes are underway in the PJM Interconnection during the next four years. An entire fleet of older generation is retiring while low Marcellus gas prices and capacity market reforms are attracting new ultra-efficient combined-cycle plants. A large pipeline buildout is underway, moving discounted Marcellus gas to more premium basis deliveries and to large combined-cycle units farther away. Demand response participation is set to peak in PJM this year with more than 15,000 megawatts while a potential Supreme Court review challenges DR as a source of supply. Price formation issues are being resolved to address scarcity, uplift, DR, and performance in an attempt to get the price right in PJM, allowing for better hedging and appropriate incentives and penalties.

These changes lead us to believe that on-peak spark spreads at PJM West Hub versus Tetco-M3 will clear at historically high levels in 2015-16. Our bullish view recognizes the expected value of shortage pricing is much higher when physical reserve margins are tight, which occurs when DR replaces retiring physical capacity. In 2017 and 2018, strong capacity auction clears encouraging new combined-cycle generation together with demand response partially "stepping out" of the supply stack will cause lower spark spread clears at PJM West Hub. There are a few scenarios we discuss below that would help keep spark spreads elevated in 2017 and 2018, but the most likely scenario is lower spark spread clears, given the new, more efficient supply stack and higher Tetco-M3 gas prices.

Key Takeaways

- Bullish: Tight physical reserve margins combined with more synchronized and primary reserves held in reserves during hot or cold weather increases the probability that the PJM system will be caught short those reserves. Rule changes won't allow increased reserves on the system to be converted to energy without replenishment or penalty.
- Bullish: DR is replacing physical capacity in PJM. DR is by far the most expensive source of energy, and DR as a capacity resource will peak for delivery year 2015-16. PJM operators are increasing focus on making sure locational marginal pricing reflects system conditions. This could allow DR to set LMP administratively more often.
- Bearish: Strong capacity auction clears and low Marcellus gas prices have encouraged a new combined-cycle fleet buildout in PJM. The extremely low heat rates on this new fleet will bring average heat rates down and cushion reserve margins during peak months. Capacity performance in the incremental and base auctions will add significant bearish pressure to winters.
- Bearish: Pipeline expansion out of the Marcellus, Cove Point LNG exports, and power generation gas demand will put a bid on weak Marcellus gas prices in 2017 and 2018, softening spark spreads. Lower fuel oil prices will also add downside pressure to spark spreads during peak demand.
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