

# NYISO Term 2017-20 Outlook

## Upside congestion risks from Indian Point retirement.

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### Morningstar Commodities Research

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#### Data Sources Used in This Publication

- ▶ Argus
- ▶ EOX Live
- ▶ Morningstar Commodity Data

To discover more about the data sources used, [Click Here](#)

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### Executive Summary

Three transmission owner transmission solution, or TOTS, projects were completed in June 2016 to reduce the impact of the Indian Point retirement in April 2020 (Unit 2) and April 2021 (Unit 3) by adding 575 megawatts of transfer capability to the upstate New York to ConEd interface. The added transfer capability combined with the addition of CPV Valley 775 MW in Zone G (Millennium gas) set to come on line in 2018 and Cricket Valley Energy Center 1,000 MW in Zone F (Iroquois gas), will help fill the supply gap and solve the bulk NYISO power system. But we still believe that upside risk from congestion, especially from zones F to G, is likely to show up in a post-Indian Point world and that the market is probably underestimating the impact in 2020 and 2021. This would force more-expensive downstate Zone J generators to be on margin more often. From 2019 to 2020, the current forward market is only pricing in a \$1.40/MW increase in Zone G on-peak spark spreads versus Iroquois gas and less than \$0.60/MW of contango in fixed-price Zone G. Zone J should see similar upside from the retirement of Indian Point but could separate further from Zone G in winter if oil prices continue to rally.

However, in NYISO Zone A, where retirements of the Huntley and Dunkirk units caused severe congestion in the Buffalo, New York, region, we see a reduced upside risk going forward as National Grid and the NYISO have worked to solve local constraints by upgrading transmission in the region, managing Niagara hydro flows, limiting clockwise Lake Erie loop flows, and proposing further transmission upgrades. Because of the severe congestion in Zone A, locational marginal pricing is often set at extreme prices on the graduated transmission demand curve in the NYISO. The NYISO is set to lower the second step along this GTDC from \$2,350 to \$1,175 by this summer and also prevent generators from setting LMP higher when transmission reserves are needed. In combination, these changes are bearish Zone A throughout the curve. If NRG does repower Dunkirk in 2020, further downside risk remains further out on the curve.

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### Key Takeaways

- ▶ Bullish: The market is probably underestimating the impact of the Indian Point retirement, given the potential for UPNY-CE and F-G congestion in peak months as well as during transmission outages.
- ▶ Bullish: Winters in Zone G could see upside if Transco Zone 6 NY and fuel oil rally when Zone J generators are setting poolwide or southeast New York prices.
- ▶ Bearish: Zone A has reduced upside, given transmission upgrades, management of Niagara flows and Lake Erie loop flows, and a much lower second step in the GTDC.
- ▶ Bearish: In 2017-19, Zone G and Zone J spark spreads have little upside, given recent transmission projects, new build, and zero-emissions credits propping up uneconomic nuclear plants.

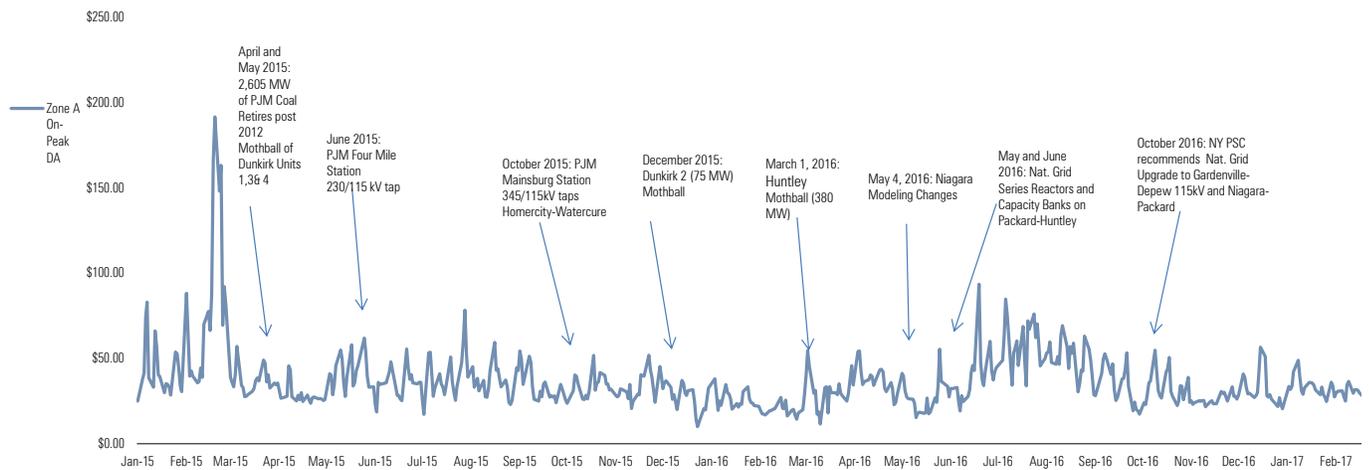
## Themes and Views on Our Forecast

### Zone A Congestion

In a previous [NYISO outlook](#), we described what is causing volatility and price spikes at Zone A. Increased Marcellus production moving east on the Millennium and Transco pipeline system has made downstate gas generation more economic, causing upstate generation such as Dunkirk and Huntley retirements. For the system, this means overall lower energy costs. But for load pockets in Buffalo in NYISO Zone A, this has caused congestion at the local level.

We believe the worst of the western New York congestion is behind us as transmission upgrades completed in May and June 2016, loop flow modeling modifications around Lake Erie, changes to the graduated transmission pricing mechanism, lowering of second step of curve, and increased focus on optimally dispatching Niagara to appropriate injection points will in aggregate relieve constraints considerably. In Exhibit 1, we detail the timeline of events that have been impactful to western New York and the historical mitigation with underlying Zone A on-peak day-ahead clears.

**Exhibit 1** NYISO Zone A On-Peak Day-Ahead Clearing Prices and Timeline of Impactful Events



Source: Morningstar, NYISO

Although the Huntley mothball probably caused much of the Zone A congestion in 2016, the mothballed units 67 and 68 were just the straws that broke the camel's back. This constraint has been building for quite some time, and like everything these days, the root cause rests on the shoulders of the disruptive Marcellus one state away. However, we still believe this remains a local transmission problem. Some of the cheapest generation in the country resides north of the constraint (Niagara Hydro and Ontario generation) and south of the constraint (Marcellus combined-cycle generation). Once upgrades are complete to allow access into Buffalo, the NYISO should be able to solve this constraint—even before NRG repowers Dunkirk as a gas generator in 2020.

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