



Vitol Problem Statement – Spot-In Service

Market Implementation Committee
Special Session
December 21, 2016

Day-Ahead Scheduling - NYISO

- Bids submitted to NYISO by 05:00 EPT
- Clearing occurs roughly around 09:35 EPT, but as late as 11:00 EPT
- Participants must create matching Tags to secure their DA position
 - Tags require PJM Transmission Service
 - PJM Hourly Non-Firm PTP service available at 08:00 EPT
 - PJM Hourly Spot-In service available at 09:00 EPT

Day-Ahead Scheduling - PJM

- Bids submitted to PJM by 10:30 EPT, cleared by 13:30 EPT
- Bids are financial, no link to physical schedules, no requirement to schedule

Real-Time Scheduling - NYISO

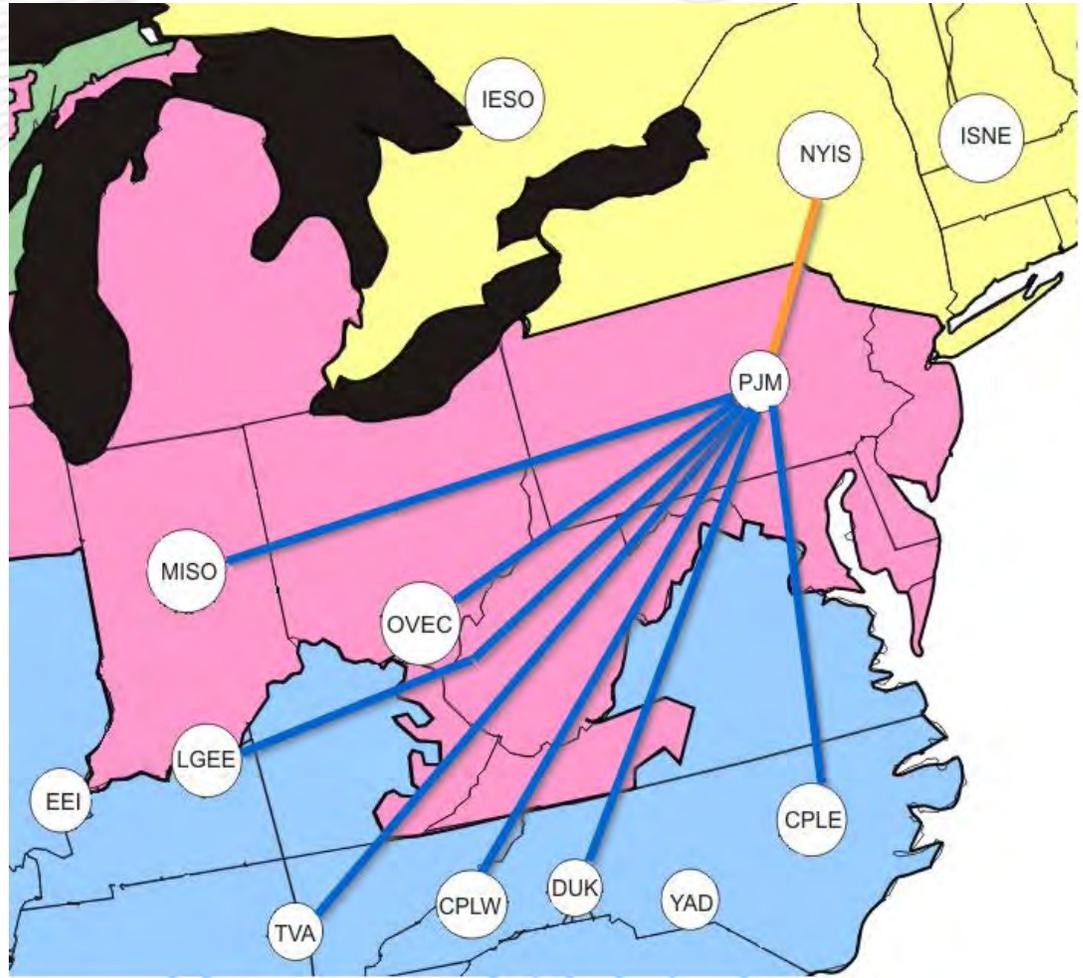
- Bids + matching Tags submitted to NYISO by 75-minutes prior to start
 - Valid Tags require PJM Transmission Service
- Bid clearing occurs between T-75 and T-20
- Tags are adjusted to match cleared bid by NYISO via curtailments

Real-Time Scheduling - PJM

- Tags require PJM Transmission Service
- Tags priced at RT LMP, regardless of submission time
- Majority of Tags are fixed price-takers

The PJM-NYISO interface is unique among PJM's physical interfaces in that all transactions are economically evaluated via NYISO's clearing engine

Transactions on other seams are 'price-takers' - they are loaded and receive PJM RT LMP without economic evaluation



- The process associated with NYISO's evaluation and the timing associated with the PJM and NYISO markets are highlighted in the original Vitol problem statement
 - uneconomic bids may prevent economic bids from utilizing ATC
 - Market-Limited Spot-In service (solution package A) applies to the PJM-NYISO seam
- Monitoring Analytics' request for unlimited service across other seams raises the following reliability and compliance concerns

- Entities have raised concerns about unlimited products, citing language in the JOAs and potential impact to reliable operations.
 - **Each Party will limit approvals of transmission service reservations, including roll-over transmission service, so as to not exceed the lesser of the sum of the thermal or stability capabilities of the tie lines that interconnect the Parties**
- Entities have also expressed similar concerns in the NAESB forum and have proposed language to address their concerns.
 - **Each Transmission Service Provider shall limit the Interchange Schedule (both Firm and non-Firm) of the reservations on an ATC path into and out of Transmission Service Provider's BA on an interface with another BA such that the net Interchange Schedule does not exceed the sum of the Facility Ratings of Tie Facilities, to which Transmission Service Providers mutually agree they have the right to use the Tie Facilities that comprise the ATC Path, between the two BAs**

- This table shows the frequency of the ATC availability issue since PJM enhancement have been implemented. Spot-In ATC has been available in excess of 959MW every hour since July 2015.

Month	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	PERIOD
Min	1180	1095	1446	1472	1062	1334	1008	959	1572	1693	1638	1676	1681	1194	1530	1707	959
Avg	1484	1428	1592	1601	1542	1605	1243	1253	1745	1825	1736	1759	1766	1651	1756	1775	1619
Max	1855	1552	1654	1940	1650	1822	1327	1329	2133	2139	1825	2083	1825	2048	1842	1825	2139

- These value are captured 1 hour after the initial trading and associated decrementing takes place at 9AM day-ahead.
- However, the risk remains that ATC could be held by an uneconomic bid.

- As a possible alternative solution, Vitol and PJM discussed moving the earliest request time for Spot-In service across all seams to after the NYISO results are posted.
- Solution Package B calls for PJM's earliest request time for Spot-In service to start at 10AM day-ahead rather than the current 9AM request time.
 - Obtain service *after* NY DA results are known.
 - Consistent start-time across all PJM seams.

Questions

- PJM has implemented recent enhancements to the NYISO interface designed to address the ATC availability issue
 - 2015
 - Moved the scheduling horizon window from 10AM to 9AM which means ATC decrements based on the Tag starting at 9AM, not on the Transmission Service Reservation.
 - Transmission service that is not tagged will not be considered in the ATC engine thereby increasing efficiency.
 - 2016
 - Extended the 5-minute shotgun window to Spot-In service.
 - All parties requesting spot-in transmission service will no longer be limited by the first-come, first-served process.