

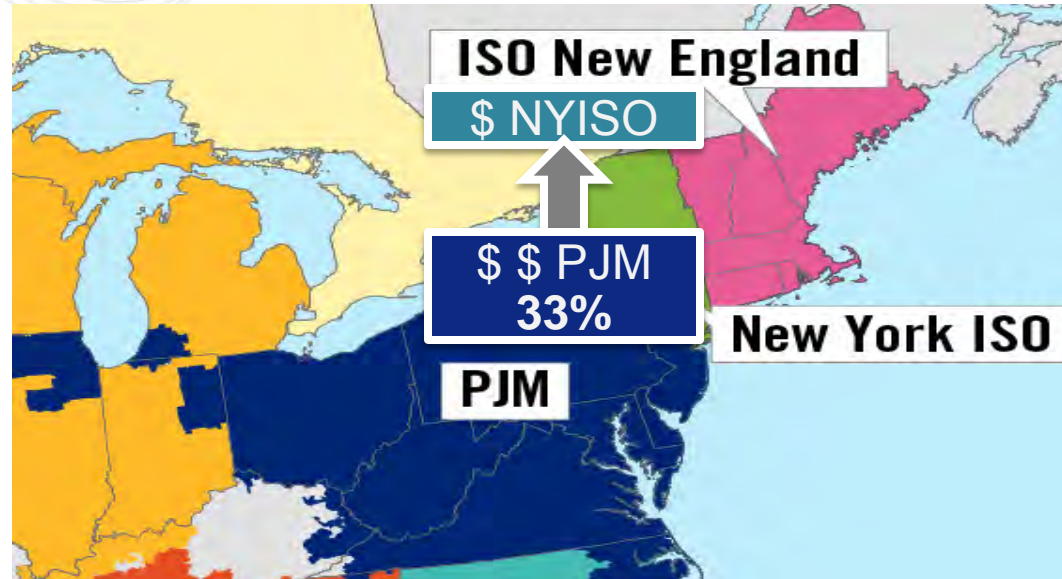


PJM/NYISO Coordinated Transaction Scheduling

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Markets and Reliability Committee
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The objective of Coordinated Transaction Scheduling (CTS) is to improve interchange scheduling efficiency

- Increase alignment of energy scheduling with interface prices
- Adds the option for Market Participants to schedule energy transactions across the NYISO/PJM interface using an interface bid



- Market Participants will have the ability to provide one of three types of bids at the common NYISO/PJM interfaces
 - Hourly evaluations of traditional wheel-through transactions (existing)
 - Intra-hour evaluations of traditional LMP Bid/Offers (existing)
 - **Intra-hour evaluations of CTS Interface Bid/Offers (new)**

- The Scheduling and Ramp processes will remain the same as they are today.
- Traditional and CTS transactions will have the same priority under the economic evaluation process.
- PJM-NYISO transactions will be excluded from the PJM ‘available ramp’ calculation until preliminary analysis results are provided so that uneconomic schedules do not hold ramp.
 - This should result in increased utilization over all interfaces
 - Preliminary economic evaluation results to be provided earlier
 - Looking to implement this change in Spring 2014

- The MIC endorsed the following items to address the current lack of forward price projections on September 11:
 - PJM will begin posting forward prices on the NYISO-PJM interface for November 2013 by the 15th of December and for each month thereafter by the 15th of the following month until the automated forward price posting process is placed into production
 - PJM will conduct the necessary stakeholder sessions to develop reasonable standards of accuracy for the ITSCED price forecasts by April 2014
 - PJM will begin automated forward price posting in April 2014
 - PJM will provide price performance analysis to stakeholders for review and discussion at or before the June 2014 MRC meeting
 - PJM shall schedule a vote to move forward with the CTS implementation no later than the July 2014 meeting but at least two full months prior to the implementation of CTS
 - PJM shall make reasonable efforts to notify market participants of any changes to ITSCED that would have any effect on ITSCED forecasts, including any software updates, 90 minutes prior to making such changes

- Proposed requirement uses both historical and forecasted prices
 - Due to levels of historical variances between forecast and actual prices
- Credit requirement for a bid at a node would be the greater of
 - The 97th percentile historical (prior year) hourly price for the node
 - Calculated in two-month blocks (Jan-Feb, Mar-Apr, ...)
 - Calculated separately for peak and off-peak hours
 - Consistent with what PJM does today for virtual bids
 - The 15-minute IT SCED price forecast for the node
 - May be a forecast run prior to the one used for actual clearing

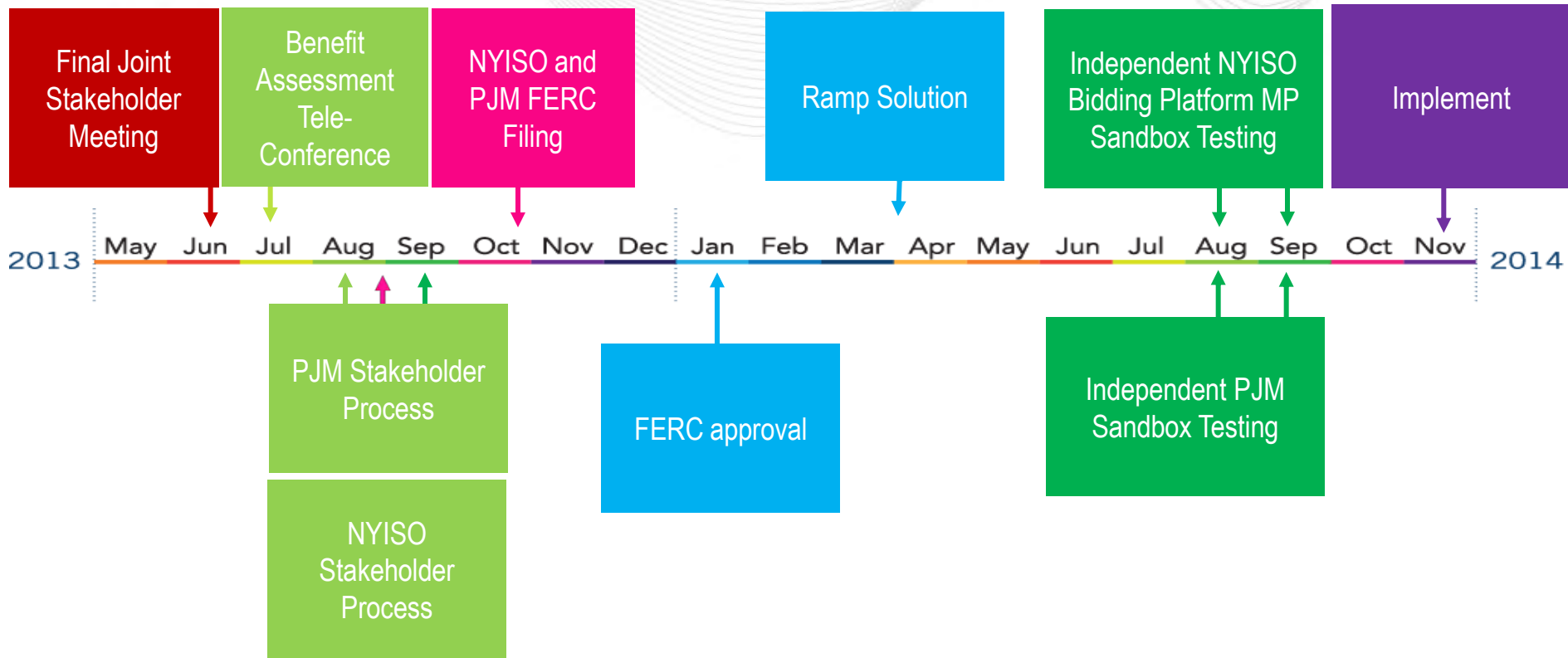
- Stakeholders have requested that there be no differentiation between traditionally scheduled interchange transactions and CTS transactions.
- Stakeholders have requested that PJM consider establishing credit requirements to traditionally scheduled export transactions in a manner similar to those requirements proposed for CTS transactions, “if such transactions create similar credit exposure.”
- On its September 12th conference call, the Credit Subcommittee agreed to review the credit requirements of non-CTS export transactions.



Impacted Operating Agreement and JOA Sections

- Schedule 1 of the OA
 - Definitions
 - 1.3.1B.02A through D: New definitions added for Coordinated External Transaction, Coordinated Transaction Scheduling, CTS Enabled Interface, CTS Interface Bid
 - 1.3.11A.02: New definition added for Look-ahead Price
 - 1.6.2(x): additional service added pertaining to the PJM Interchange Market for CTS transactions
 - 1.6A.1(i): added Coordinated External Transactions
 - 1.7.6(a): added reference to the PJM/NYISO JOA
 - 1.7.20(h): additional requirement added for CTS Interface Bids
 - 1.10.1(d): clarification added for Coordinated External Transactions
 - 1.13(a) through (d): New section added for Coordinated Transaction Scheduling
- JOA
 - 35.2.1: New definitions added for Coordinated Transaction Scheduling or CTS, Intermediate Term Security Constrained Economic Dispatch, Real-Time Commitment
 - 35.12: Added the text “and Coordinated Transaction Scheduling” and created appropriate subsections
 - 35.12.2: New subsection added for Coordinated Transaction Scheduling

Proposed Timeline



- CTS will be an optional scheduling product over the PJM/NYISO Interface using an Interface bid/offer
- CTS Interface bids will be evaluated and scheduled based on the projected price difference between PJM and NYISO at the Interface
- Ramp utilization improvements will be applied to NYISO schedules so they do not hold ramp until preliminary results are provided to PJM
- CTS Credit requirement will be the greater of the 97th percentile historical hourly price for the node or the projected price for the node
- Transmission fees and uplift costs are unchanged from today
- CTS Transactions will continue to be settled on an hourly basis consistent with the current PJM Energy Market settlements
- A checkpoint to review forward price performance will be conducted in the summer of 2014 prior to implementation of CTS