

# **Coordinated Transaction Schedules**

## **NYISO's RTC Economic Evaluation and PJM's Ramp Limits**

2013 Stakeholder Meetings

## Stakeholder Feedback

### Concerns regarding:

- **The priority of normal LBMP schedules vs. CTS schedules during NYISO's economic evaluation**
- The order in which tags are curtailed by PJM when ramp availability is limited
- The potential for a large volume of uneconomic CTS transactions to limit ramp availability for more economic schedules
- The potential for non-NY/PJM market participants to use all available ramp prior to NY issuing their binding economic results

## NYISO RTC Economic Evaluation

- LBMP and CTS bids are evaluated simultaneously
- RTC attempts to minimize production cost while satisfying demand. Marginal bids drive the RTC price projection.
  - LBMP bids are evaluated by their offer price
  - CTS bids are evaluated against the difference between the RTC price projection and PJM's IT-SCED price projection
- When LBMP and CTS bids are economically equivalent, they will be awarded MW on a pro-rata basis
- RTC will also enforce a NYISO ramp limit, as needed



LBMP Bids and CTS Bids are evaluated simultaneously and on a level playing field when establishing a merit-order

- LBMP

- Imports/Exports = LBMP Offer Price

- CTS

- Imports = PJM IT SCED Price + CTS Offer Price

- Exports = PJM IT SCED Price – CTS Offer Price

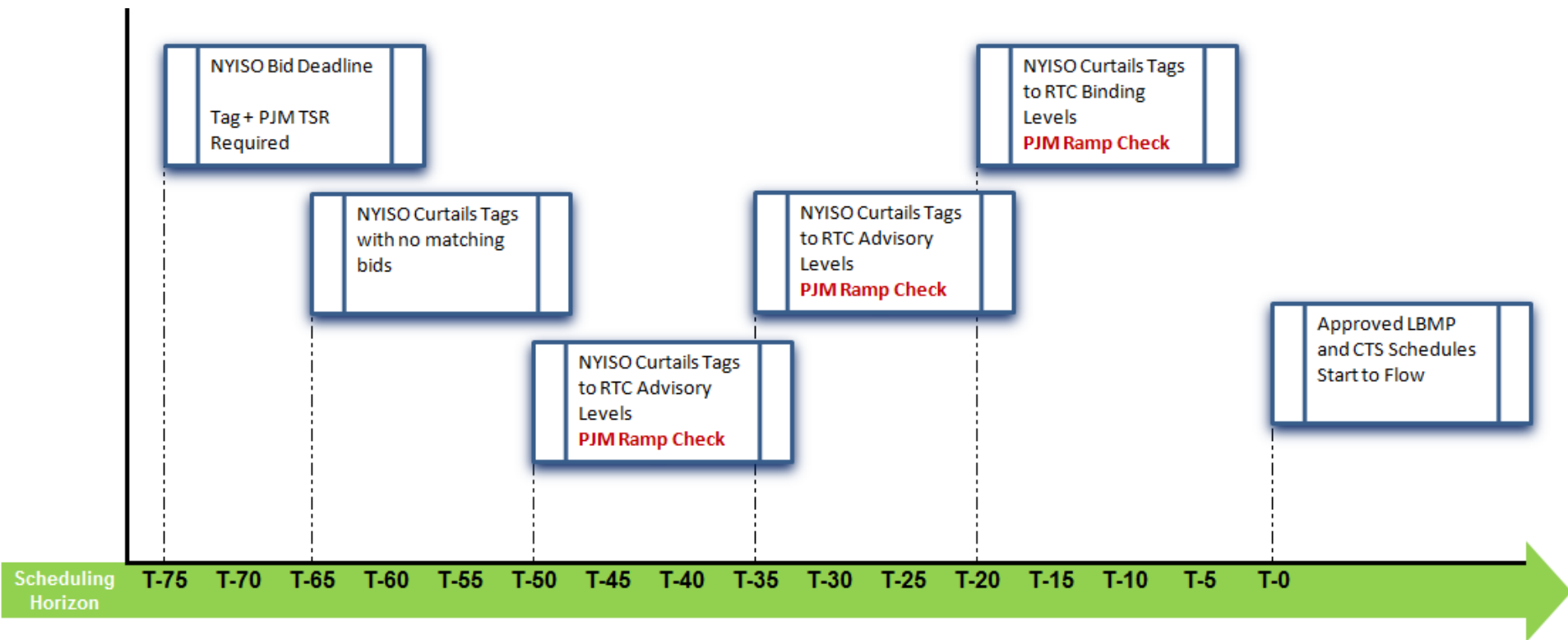
	Price	CTS	Demand
RTC LBMP Projection	\$40	\$11	500
PJM IT-SCED Projection	\$29		

Imports	Type	MW	Offer Price	Cleared	Merit Order	Award MW
Bid 7	CTS	100	\$50	NO		
Bid 6	CTS	100	\$15	NO		
Bid 5	LBMP	300	\$40	YES	\$40	75
Bid 4	CTS	200	\$10	YES	\$39	200
Bid 3	CTS	75	\$6	YES	\$35	75
Bid 2	LBMP	100	\$20	YES	\$20	100
Bid 1	LBMP	50	\$15	YES	\$15	50
						500

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TSR = Transmission Service Reservation    RTC = Real Time Commitment

Currently, PJM makes corrections for ramp limit violations on a Last-In, First-Out basis. Curtailment order is determined by a timestamp associated with each participant's tag.

Actions affecting the timestamp include:

–Tag Creation

- Set when PJM receives the tag creation request

–Tag Modification (Adjustment, Termination, Curtailment, Reload)

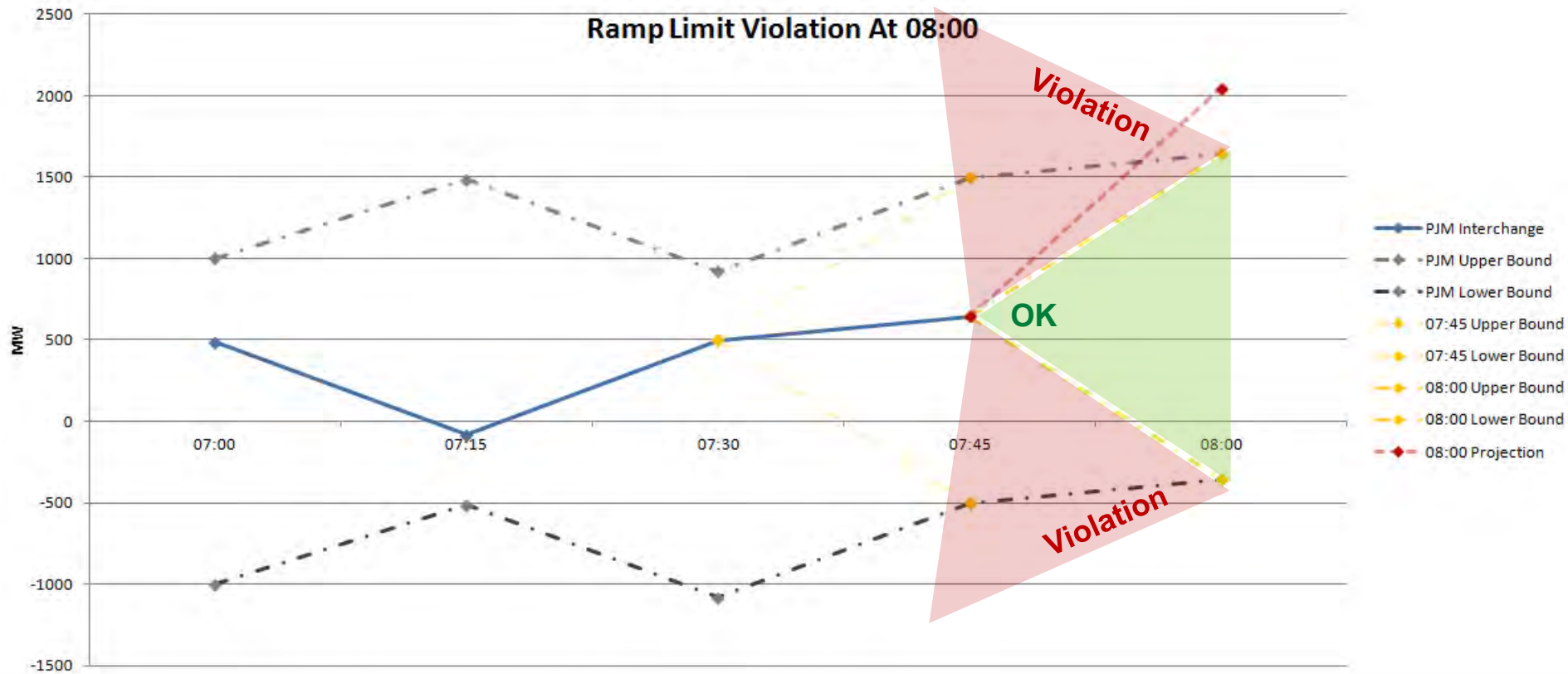
- Set when PJM receives the tag modification request

–Ramp Reservation modification

- Set when the participant submits the modification

This procedure does not change with the adoption of CTS. Ramp corrections occur only after NYISO has performed an economic assessment (advisory/binding). PJM does not utilize economic criteria to determine curtailment order.

After the NYISO RTC results are issued for 08:00, PJM evaluates ramp and detects a ramp limit violation





PJM Dispatchers must only curtail tags that will help alleviate the ramp limit violation.

In this example import ramp limit violation, all tags are evaluated in descending timestamp order.

- Import tags are eligible to be curtailed
  - New imports
  - Existing imports that are increasing MW level
  - Existing exports that are ending
- Export tags should not be curtailed, as they help offset the violation
  - New exports
  - Existing exports that are increasing MW level
  - Existing imports that are ending

Tags not eligible for curtailment

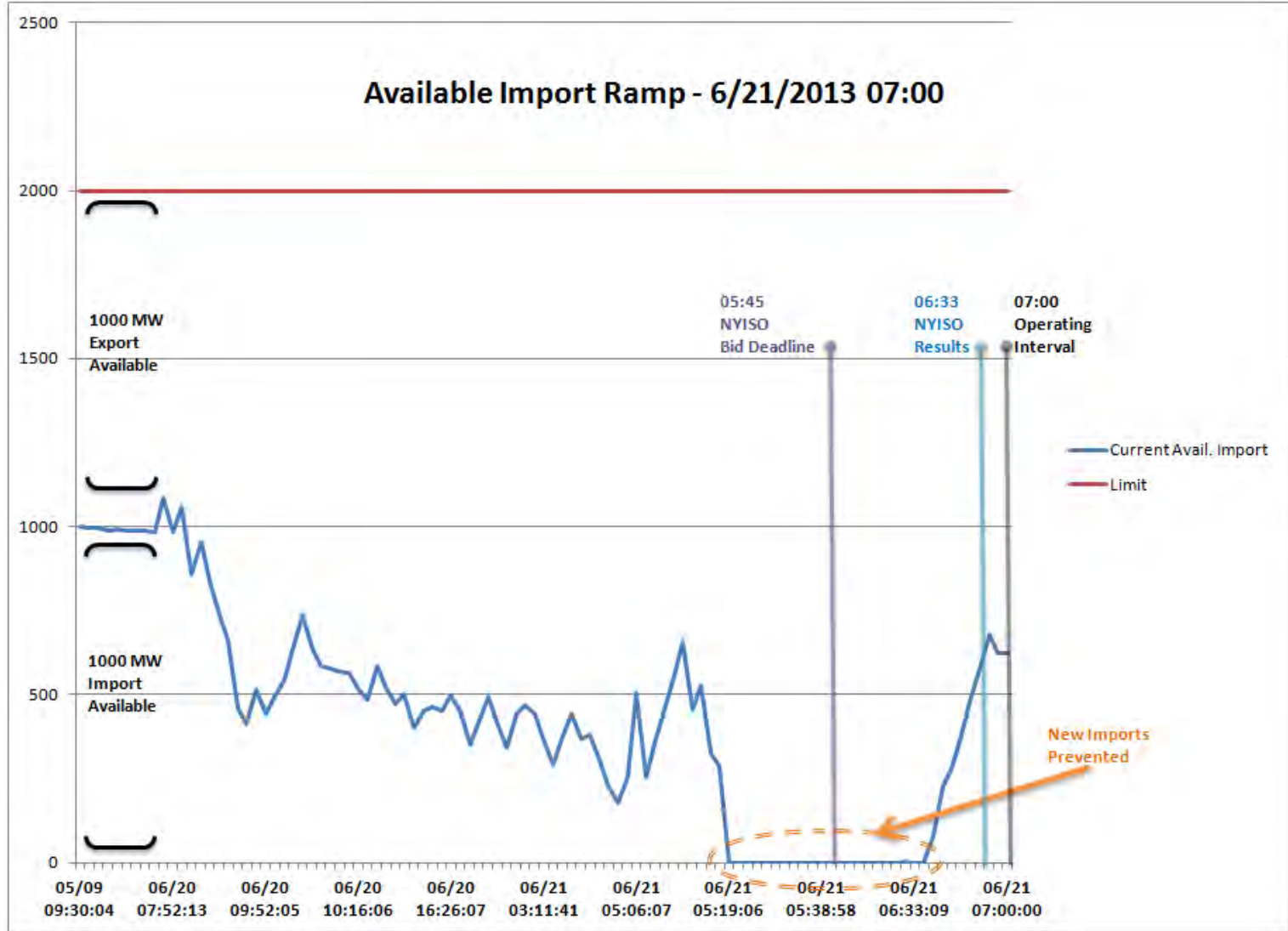
- Imports and exports that maintain a flat schedule through the interval
- Wheels

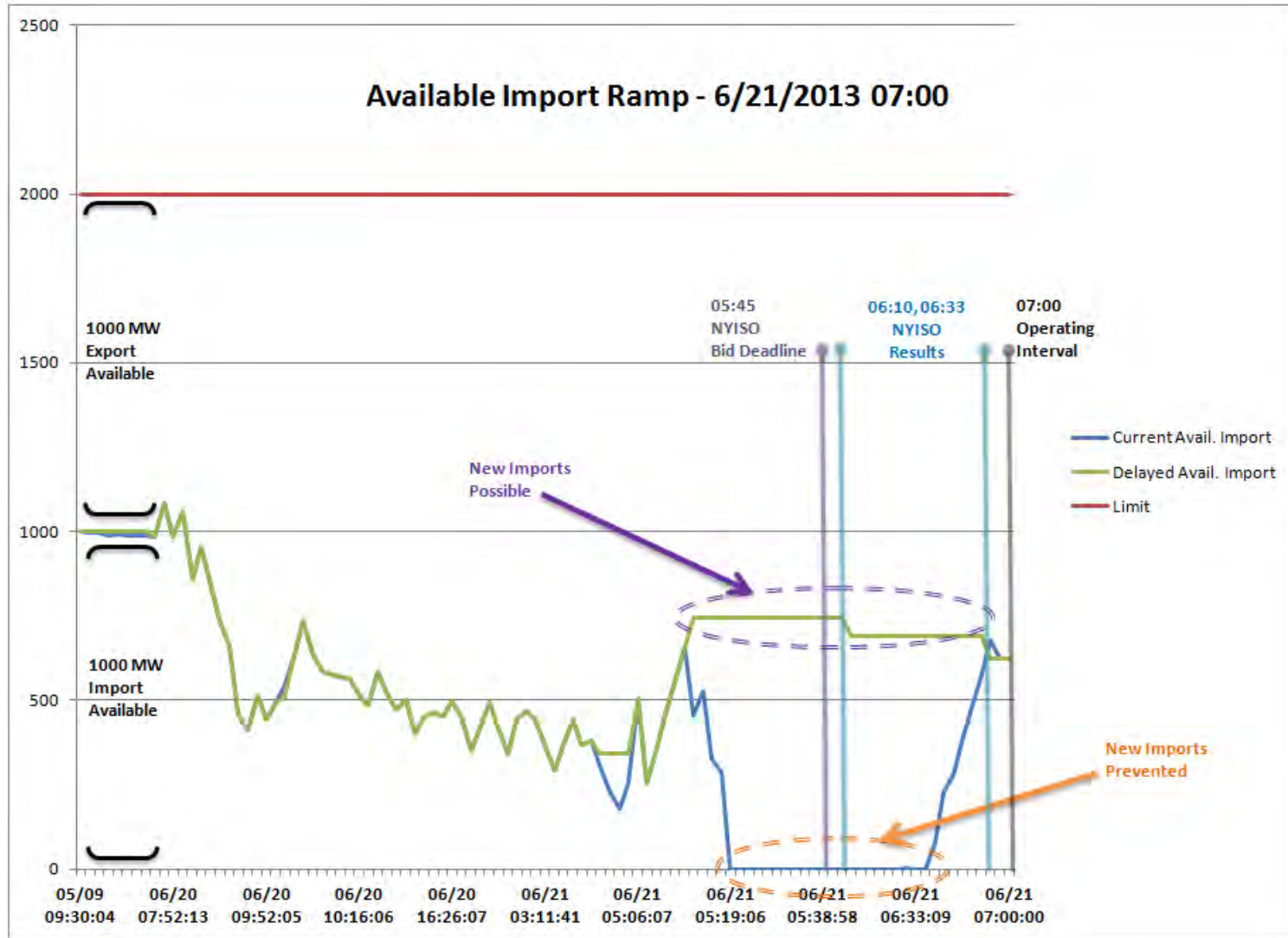
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# Example to Illustrate Ramp Availability Concerns





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- **The potential for non-NY/PJM market participants to use all available ramp prior to NY issuing their binding economic results**

If the final NYISO results cause a ramp limit violation, PJM Dispatch will evaluate tags for curtailment on a Last In-First Out basis.

