New York ISO Response to Neighboring Transmission Loading Relief

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Impact of Transmission Loading Relief

- ➢ During September & October of 2003, the use of TLR procedures increased by IMO and PJM to manage excessive transmission flows in real time

- ➢ Neighboring control areas use Transmission Loading Relief (TLRs) to manage constrained transmission flows

- ➢ TLRs between control areas and within a neighboring control area can significantly affect transactions in the NYISO markets

- ➢ TLR curtailments can impact NYCA reliability to the extent they occur in-hour

- ➢ TLR curtailments may affect NYISO Day-Ahead Market (DAM), as well as Hour-Ahead Market (HAM) transactions

ISO Response to TLRs

➢ When TLRs are called by neighboring control areas, specific transactions are curtailed to provide transmission relief in real time using IS+

➢ If the TLR is still in effect for subsequent Balancing Market Evaluation (BME) runs, then the ISO takes the following actions:

- *HAM transactions that negatively impact TLR flowgate are not evaluated for scheduling*

- *All remaining HAM transactions continue to be evaluated as normal*

- *Normal scheduling for all HAM transactions resumes after TLR is withdrawn*

NYISO Procedures Mitigate TLR Disruption to Operation and Markets

- ➢ ISO procedures take advantage of HAM scheduling capability (BME)
- ➢ HAM transactions associated with TLR flowgate are proactively removed from consideration by BME
  - ▪ *Promotes a reliable dispatch as in-hour TLR curtailments could be larger than NYISO reserve requirement*
  - ▪ *Minimizes potential for disruptive market operation due to in-hour transaction reductions*
  - ▪ *Allows transaction scheduling of highest economic priority by minimizing need for curtailments of DAM transactions*
  - ▪ *Fosters price convergence between hourly and real-time energy prices, potentially reducing need for uplift*

Example – TLR Between Control Areas
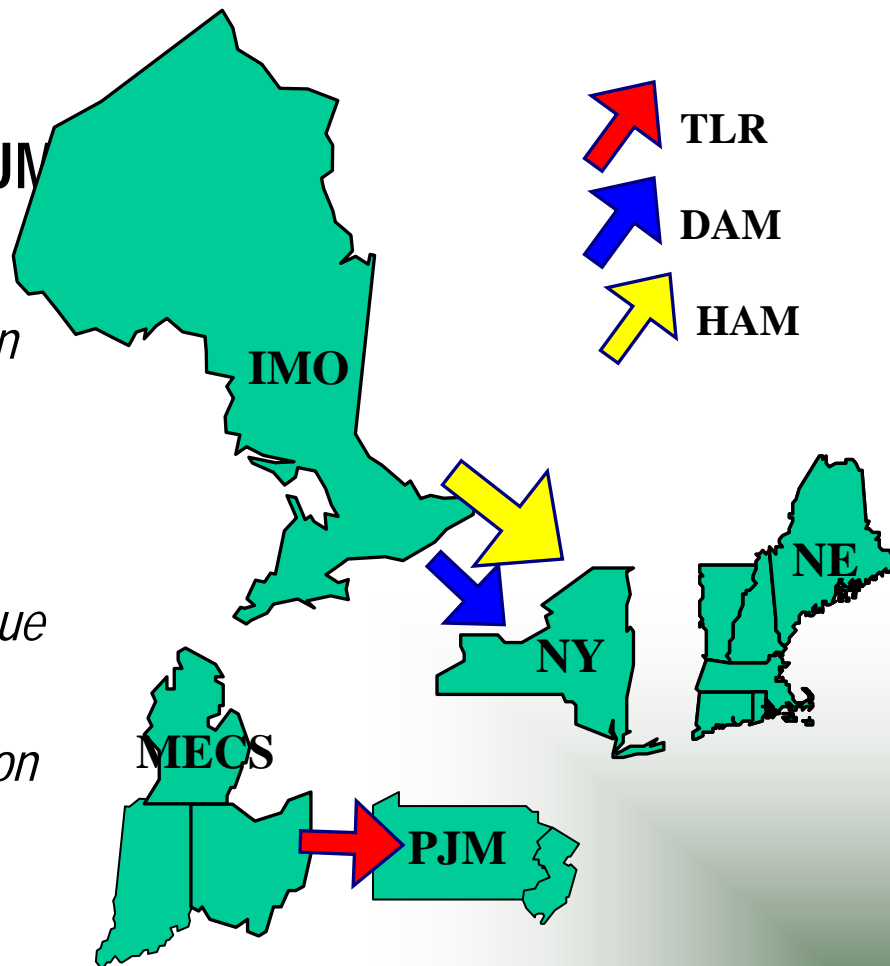
> ## MECS-IMO TLR Issued by IMO

- *PJM-NY DAM & HAM transaction curtailments typically result from TLR*
- *NY- IMO DAM & HAM transaction curtailments may result from TLR*
- *NY- IMO and PJM-NY HAM transactions no longer evaluated*
- *All other HAM transactions continue to be evaluated*
- *Normal HAM transaction evaluation resumes after TLR withdrawn*

TLR

DAM

HAM

IMO

NE

MECS

NY

PJM
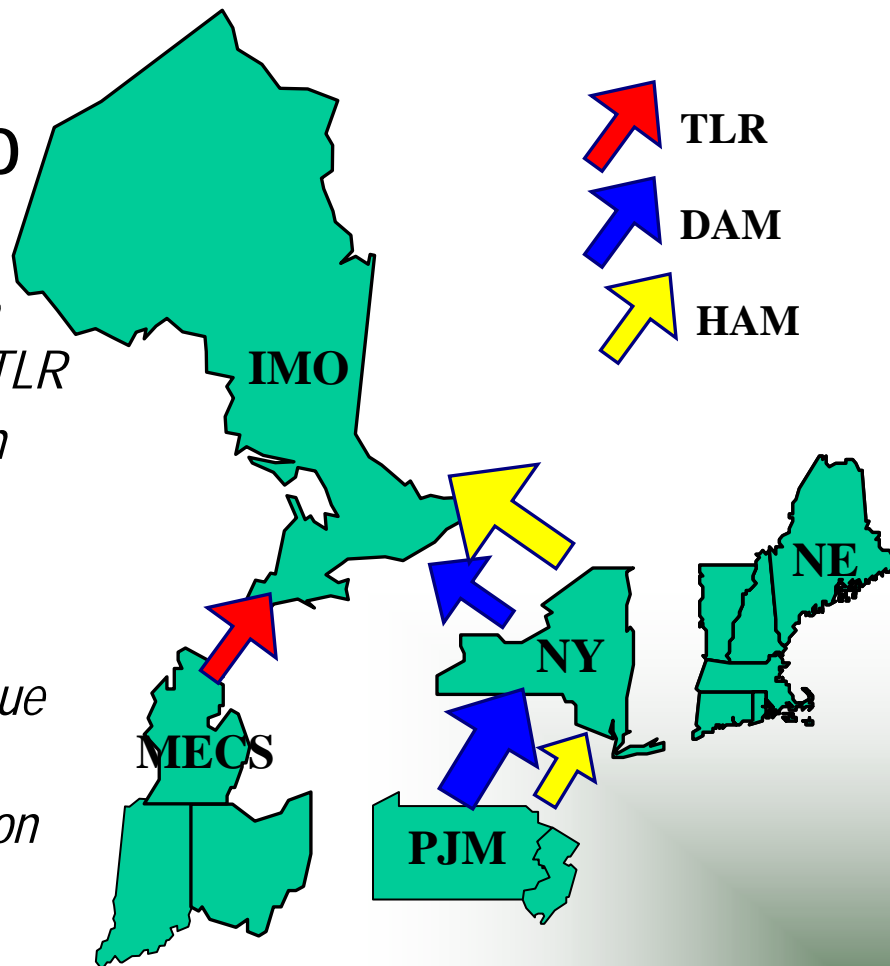
Example – TLR Between Control Areas
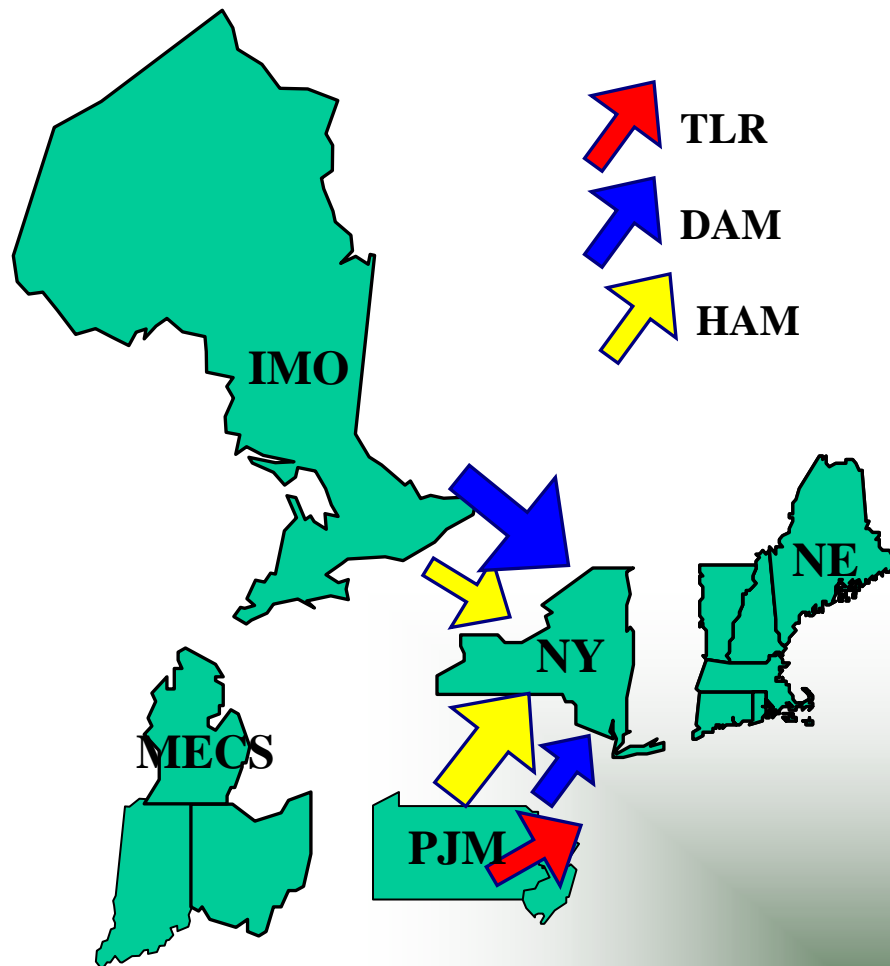
➢ **Wylie Ridge TLR Issued by PJM**

- *IMO - NY DAM & HAM transaction curtailments may result from TLR*

- *IMO - NY HAM transactions no longer evaluated*

- *All other HAM transactions continue to be evaluated*

- *Normal HAM transaction evaluation resumes after TLR withdrawn*

TLR

DAM

HAM

IMO

NE

NY

MECS

PJM

Example – TLR within a Control Area

➢ **Cedar-Roseland Grove TLR Issued by PJM**

- ▪ *IMO-NY DAM & HAM transaction curtailments typically result from TLR*
- ▪ *PJM-NY DAM & HAM transaction curtailments may result from TLR*
- ▪ *IMO-NY and PJM-NY HAM transactions no longer evaluated*
- ▪ *All other HAM transactions continue to be evaluated*
- ▪ *Normal HAM transaction evaluation resumes after TLR withdrawn*

TLR

DAM

HAM

IMO

NE

NY

MECS

PJM

New York Independent System Operator-
-Draft - For Discussion Only

If ISO TLR Actions Cannot be Applied

➢ TLRs may be called immediately before BME runs

➢ If insufficient time is available to not evaluate HAM transactions associated with the TLR flow gate, the affected scheduling interface is de-rated (I.e IMO-NY or PJM-NY)

➢ BME schedules all economic transactions and will incorrectly indicate HAM congestion on the derated interface

➢ Additional transactions may be cut during HAM checkout

Price Adjustments
in Absence of ISO TLR Actions

➤ Settlement prices at the proxy bus will be incorrect since they reflect congestion that is not present on the ISO's system

  ▪ The timing of the TLR produced congestion in BME, not congestion on the NYISO system

➤ Price correction is necessary so that settlement will conform to the requirements of the Tariff

Price Reservations and Corrections

➢ The hour in question is reserved to determine if congestion is solely the result of our response to a TLR, or if the congestion arose as a result of the economics of the BME solution

➢ If necessary, TLR-derived congestion is removed

TLR Price correction Data for September, October, and November

Date	Hour Beginning	Intervals Corrected
19 September 2003	9	16
10 October 2003	1, 2, 4	44
18 October 2003	3-7, 13, 14, 21-23	156
19 October 2003	12-17	90
22 October 2003	8-13, 15, 17, 20-22	155
23 October 2003	4, 9-11, 14, 15, 20-22	127