

# Regional Dispatch Coordination (RDC)

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# RDC Proposal Update

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#### Motivation

- ➤ There are currently a number of factors limiting price convergence between ISO operated real-time spot markets in the Northeast:
  - Transmission and ramping constraints.
  - Export charges.
  - Export restrictions and non-LMP pricing.
  - Variations in shortage pricing across control areas.
  - Lags and forecasting error in adjusting interchange.



## Concept

- ➤ This is a proposal to correct for inefficiencies resulting from lags and forecast errors inherent in RT transaction scheduling
- The essence of the proposal is that the ISOs participating would periodically adjust real-time net interchange to maintain price consistency across the markets of the participating ISOs.
  - Price consistency will be measured at a predetermined benchmark.
  - The benchmark could be a single location or a weighted average of several locations.
  - The proposal could be implemented by any two adjoining ISOs.



# Complement to Transaction Scheduling

- ➤ Information and response time lag coupled with inter-market scheduling coordination precludes timely and efficient MP response to **short term** RT price signals
- ➤ ISO coordinated compliment will improve efficiency of inter-ISO transmission utilization and market equilibrium



#### **Details**

- ➤ Implementation of real-time inter-ISO dispatch will potentially affect five areas of ISO operation:
  - Real-time dispatch
  - Hour-ahead security evaluation
  - Day-ahead market
  - Congestion hedges
  - Settlements



#### Real-time Detail

- ➤ Implementation requires addressing a number of detailed issues regarding real-time operation.
  - What will be the benchmark location?
  - Will interchange adjustments account for charges on exports?
  - What will be the frequency of interchange adjustments?
  - How will the ISOs determine adjustments to interchange?
  - Will real-time interchange be tagged and subject to TLR?
  - How will interchange with non-LMP systems be coordinated?
  - How will differences in benchmark prices arising from differences in shortage pricing systems be addressed?



#### Hour-ahead Detail

- ➤ Inter-market schedules between coordinating ISO's will become financial, like internal bilaterals. Implementation issues pertaining to the hour-ahead evaluation process include:
  - How will real-time interchange levels be assessed for hour-ahead security evaluation?
  - What degree of consistency across ISOs in assumed interchange is necessary in hour-ahead evaluations and how will this consistency be maintained?
  - Coordination of effect on interchange scheduling of non-coordinated ISO interfaces.



## Day-ahead Detail

- ➤ At this point, it is not envisioned that the implementation of real-time dispatch would require changes in day-ahead markets.
  - Day-ahead markets would operate sequentially.
  - Day-ahead export and import schedules would be financial schedules in real time.
  - Settlement of interchange schedules would have to be coordinated so that when the second day-ahead market clears, there is a single set of interchange schedules that is common to both markets.



## Congestion Hedges

The introduction of real-time interchange would be consistent with, but would not require, the introduction of inter-market congestion hedges settling in the day-ahead market and inter-RTO congestion rent settlements.



#### Settlements Detail

- ➤ Real-time inter-regional transactions would be financial.
  - Deviations between market participant day-ahead and realtime schedules would settle at real-time prices.
  - The charge for exports would be the difference between the benchmark price in the importing control area and the benchmark price in the exporting control area. In effect, power being exported would be sold at the benchmark price in the exporting control area and would be purchased at the benchmark price of the importing control area.
  - Absent congestion, these benchmark prices should differ by the charges on exports.



## Proposal Status – The Neighborhood

- > Requires a cooperating neighbor
- Concept has been reviewed with all NYISO neighbors
- ➤ ISONE and The IMO agree it presents potential solutions to persistent seams issues and are interested in pursuing further
- ➤ PJM has a full plate at the moment wants to be kept up to date



## Proposal Status – Timeline

- ➤ ISO-NE has agreed to co-develop the plan with the intent to implement, The IMO will participate in developing the plan.
  - Late April White paper description
  - Late August Feasibility evaluation including economic assessment
  - Late September Implementation plan
  - Late December Technical specifications