

Inter-Regional Interchange Scheduling (IRIS): Process Update and Voting Discussion

Robert Pike

Director, Market Design

New York Independent System Operator

Business Issues Committee

May 3, 2011

Today's Discussion

- ◆ Process Review
- ◆ Interchange Scheduling Process
 - *Background and Proposals*
- ◆ Discuss Design Option Selection Process

Appendix: Summary Comparison

Detail available for future reference. Today's discussion is not intended to be a detailed review of the alternatives under consideration, but rather to ensure the group is aware of the ongoing discussions and availability of topic material and to collect feedback on the upcoming selection process.

Process Review

- ◆ In July 2010, NYISO and ISO-NE commenced a joint project to evaluate the economic and operational performance of energy interchange on their interconnected transmission systems, including a review of current protocols and development of alternative procedures that could improve the system performance and provide market efficiency improvements
 - *Issued a white paper on concerns with the existing scheduling protocol, potential lost efficiencies and improvement options.*
 - http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2011-01-21/Agenda_05 - IRIS White Paper.pdf
 - *Continue to develop a Design Basis Document (DBD) / Concept of Operation maintaining a summary of the key features and requirements of the alternative solution options*
 - http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2011-04-28/20110428_IRIS_DBD.pdf
 - *Conducted series of five joint stakeholder meetings (1/21, 2/14, 3/7, 3/28 and 4/28). Meeting material is located in the MIWG folder for these dates.*
 - http://www.nyiso.com/public/markets_operations/committees/meeting_materials/index.jsp?com=bic_miwg
 - *Additional joint stakeholder meeting scheduled for May 20th to discuss options*
- ◆ The ISOs desire to put the alternative options to a stakeholder vote to select a single concept to further develop the market design and supporting tariff language.

Background

- ◆ Many practical concerns with the existing scheduling system and resulting efficiency:
 - *Myriad rules and costs – that differ between ISO-NE and NYISO*
 - *Cumbersome – ISOs require everything twice (once for each ISO)*
 - *Independent – Each ISO makes scheduling decision solely on its evaluation*
 - *Inflexibility – rigid schedules can't match fast-changing LBMPs*

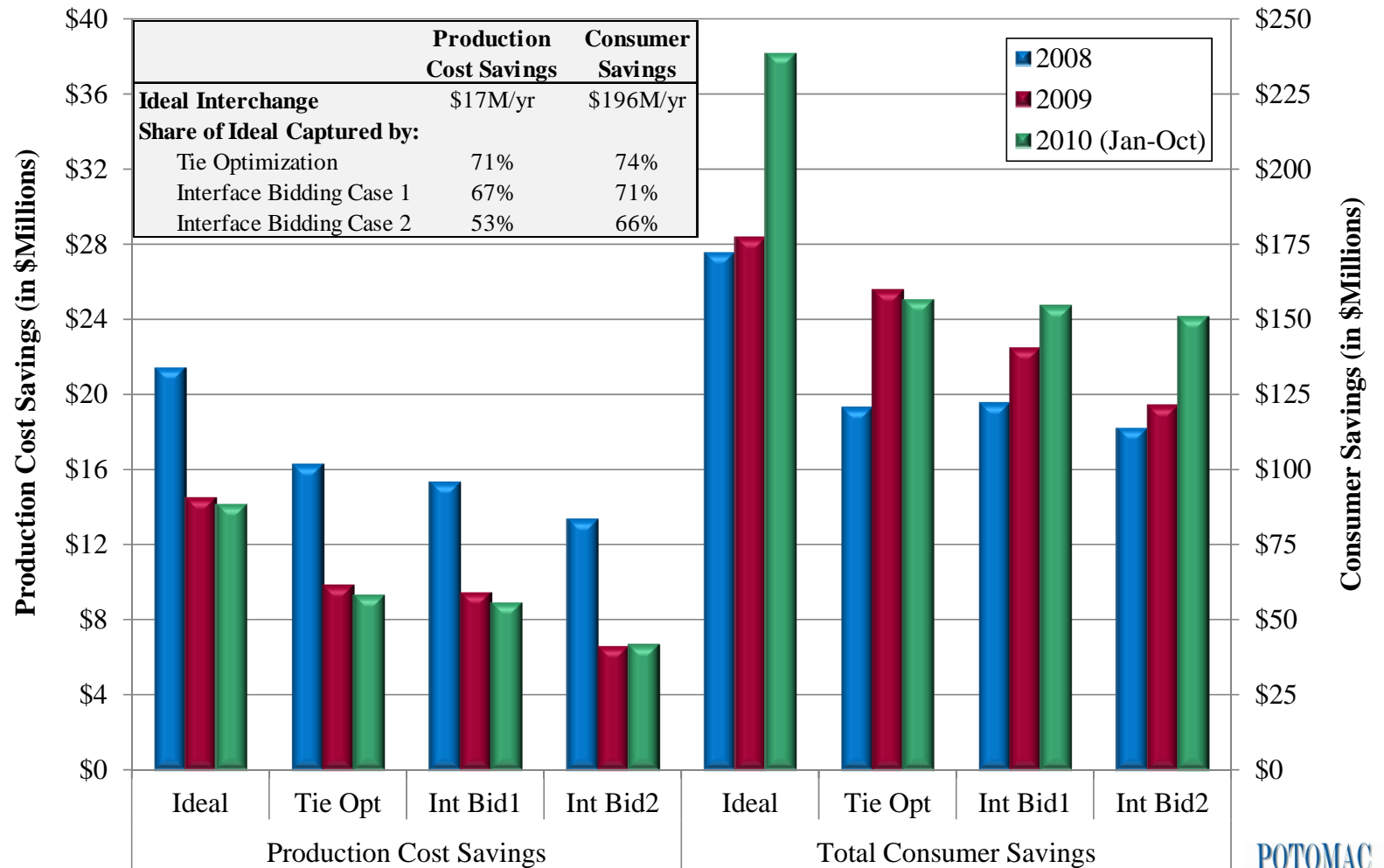
What are the Consequences?

- ◆ Interface with ISO-NE is underutilized
 - *Data indicates ample transmission capacity is available to move additional power across the interface from low to high-cost ISO*

- ◆ Higher production costs and higher consumer costs than necessary



Production Cost Savings and Consumer Savings



Solution Options: Key Elements

1. Higher-frequency schedule changes (15 min)
2. Eliminate NCPC credits/debits & fees on ext. txns
3. DA market: External txn remain similar to today, *plus:*
4. Congestion pricing (DA & RT) at external nodes
5. FTRs at external interfaces (NY/NE)
6. New RT Inter-Regional Interchange System (IRIS)
 - *Stakeholders in each ISO must select among the two principle IRIS options currently being discussed*
 - *A consensus on one option is needed*
 - *Options listed on Next Slide*

Solution Design Options

- ◆ Tie Optimization
- ◆ Coordinated Transaction Scheduling
- ◆ Additional options have been suggested including more frequent bidding of transaction schedules, and more frequent scheduling utilizing the existing protocols.

Previous Meeting Topics

Jan 21: Current system and inefficiencies, IRIS benefit analysis, Higher Frequency Scheduling System (TO)

Feb 14: Higher Frequency Scheduling System (CTS), DA & RT market linkages, DA external transactions, interface pricing & settlements, latency risk

Mar 7: FTRs and congestion pricing, NCPC & fee on ext transaction, capacity import issues

Mar 28/Apr 28: Q&A, discussion of DBD elements, alternative scheduling options, latency risk, capacity import issues, and follow-ups on additional detail as requested.

May 20: Q&A, follow-up on additional details, finalize DBD elements and alternative proposals.

Selection of the Design Option

- ◆ Process

- *Now thru May 20th:*

- Define/refine alternative the two design options

- *Joint MIWG/ISO-NE Market Committee May 20th Meeting:*

- Last joint meeting to review design options and finalize the voting process

- ◆ Joint BIC / ISO-NE Markets Committee June 1st Meeting

- *Vote on choice of design option*

Joint BIC / ISO-NE Markets Committee

- *BIC Members and ISO-NE Members need to vote on the option they believe should go through further detailed design and tariff development*
 - Both ISOs need to choose the same option
 - Tariff language will return to the BIC and MC before the end of the year for final approval prior to filing
- *Elements of a Fair Vote*
 - Should all participants hear the same presentations immediately prior to voting?
 - Should the same motion be presented to both committees – will amendments be offered?
 - If meeting jointly, a process needs to ensure the votes are recorded appropriately
 - The ISOs believe the voting process should not register one ISO members' votes before the other

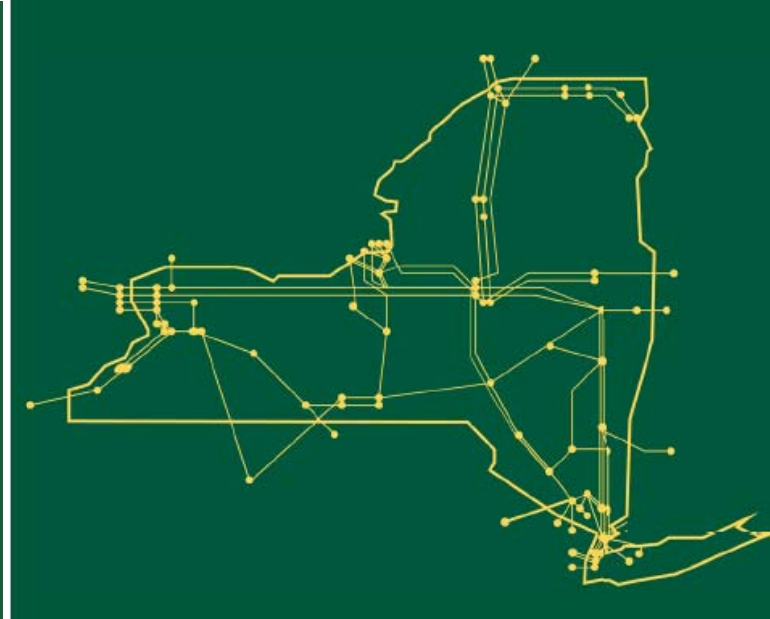
Potential Voting Options

- ◆ Meet jointly and split into separate rooms for the vote
 - *Participants may miss last minute information or questions*
- ◆ Roll Call that alternates between ISOs
 - *May be confusing and could produce errors*
- ◆ Written Roll Call Vote
 - *Joint meeting; ISO-specific paper ballots handed out*
 - *Results jointly announced and then posted as in any other roll-call vote*

Subsequent Steps

- ◆ June – October: Stakeholder processes to develop necessary tariff language and supporting software change orders.
- ◆ October – November: Seek BIC/MC approval of proposed tariff language and budget approval for project implementation.
 - *Anticipate 2013 implementation.*
- ◆ December: FERC filing by both NYISO and ISO-NE

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



www.nyiso.com



Appendix

Summary Comparison of Tie Optimization and Coordinated Transaction Scheduling

IRIS Design Comparison Day-Ahead Market

Category	Tie Optimization	Coordinated Transaction Scheduling
Scheduling	Same as today, independent clearing.	Same as today, independent clearing.
Congestion pricing at the interface	Yes, independent congestion pricing	Yes, independent congestion pricing
FTR products at the interface	Yes	Yes

IRIS Design Comparison Real-Time Market

Category	Tie Optimization	Coordinated Transaction Scheduling
Bidding	<ul style="list-style-type: none"> ◆ Resources – same as today ◆ No RT transaction bids. ◆ RT ET financial option under consideration 	<ul style="list-style-type: none"> ◆ Resources – same as today ◆ RT Transactions provide Interface Bids
Scheduling	<ul style="list-style-type: none"> ◆ Same process. ◆ Coordinated scheduling, integrated with economic dispatch 	<ul style="list-style-type: none"> ◆ Same process. ◆ Coordinated scheduling, integrated with economic dispatch, inclusive of interface bids

IRIS Design Comparison Real-Time Market

Category	Tie Optimization	Coordinated Transaction Scheduling
Congestion pricing at the interface	Yes, coordinated congestion pricing, equal allocation of RT congestion rents	Yes, coordinated congestion pricing, equal allocation of RT congestion rents less interface bids
Interchange schedule adjustment frequency	15 minutes	15 minutes
Schedule duration	15 minutes	15 minutes
Scheduling integrated with Economic Dispatch	Yes	Yes

IRIS Design Comparison Settlement

Category	Tie Optimization	Coordinated Transaction Scheduling
Day ahead transactions flow into real time	Transaction clearing both ISOs' DAM automatically deemed to flow in real time	Must clear interface bid to flow in real time
Elimination of fees and uplift allocation to RT ET	Yes	Yes

IRIS Design Comparison

Latency

Category	Tie Optimization	Coordinated Transaction Scheduling
Latency delay	Same - approx 15 minutes	Same - approx 15 minutes
Latency Risk Management	Uplift/Downlift allocated to consumers	By Transactions via Interface Bids

IRIS Design Comparison Implementation

Category	Tie Optimization	Coordinated Transaction Scheduling
Implementation cost and timeline	Similar - scheduling protocols, interchange tagging, settlement procedures	Similar - common bidding platform, scheduling protocols, settlement procedures

IRIS Design Comparison Benefits

Category	Tie Optimization	Coordinated Transaction Scheduling
Annual Product Cost Savings (\$M/yr)	\$11.8	\$8.9 - \$11.2
Annual Consumer Savings (\$M/yr)	\$145.8	\$128.9 - \$139.2

IRIS Design Comparison System Utilization

Category	Tie Optimization	Coordinated Transaction Scheduling
Transmission Utilization	Improved	Improved
Counter Intuitive Flows	Improved	Improved
Average Flow adjustments	~230 MWs	~95 MWs

IRIS Design Comparison Capacity Market

Category	Tie Optimization	Coordinated Transaction Scheduling
Impact on external capacity supplier obligations	Similar	Similar