

CTS with ISO-NE

Tariff Revisions

Michael DeSocio

*Manager, Energy Market Design
New York Independent System Operator*

Market Issues Working Group

April 23, 2015

Krey Corporate Center

Benefits of CTS with ISO-NE

◆ Coordinated Transaction Scheduling (CTS)

The objective of CTS is to improve efficiency of energy scheduling with neighboring ISOs.

◆ Efficiency Impact

CTS will allow market participants to schedule based on the price difference between the NYISO and the neighboring ISOs, thereby:

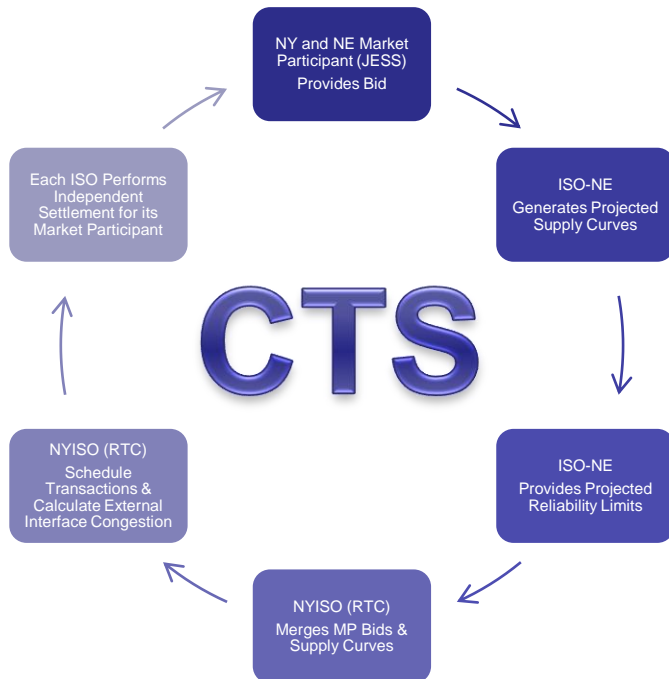
- *improving the arbitrage opportunities available;*
- *improving the convergence of energy prices throughout the regions resulting in more efficient utilization of existing transmission capability;*
and
- *allowing more efficient access to lower cost resources throughout the regions.*

In addition, the NYISO and ISO-NE will make quarter-hour scheduling available at the Sandy Pond Proxy Generator Bus when CTS is implemented.

Benefits of CTS with ISO-NE

◆ Today

- *RTC schedules interchange without any knowledge of ISO-NE reliability limits.*
- *Any reductions in the normal Reliability Limits after RTC has produced an interchange schedule can result in transaction cuts by operators during the checkout process, potentially resulting in a less economic interchange schedule.*



◆ Tomorrow (post CTS w/ ISO-NE activation)

- *RTC will be supplied with reliability limits as inputs, allowing RTC to schedule the most economic interchange possible within the range of the limits.*
- *Transaction cuts after RTC has scheduled interchange should be minimized.*

CTS Review

The NYISO has reviewed the concepts contained in the Joint Coordination Agreement at previous working group meetings.

- ◆ **CTS Workshop on February 12, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-02-12/CTS%20with%20ISO-NE%20How%20it%20will%20Work%203.pdf

- ◆ **MIWG on April 2, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2015-04-02/CTS%20with%20ISO-NE%20How%20it%20will%20Work%205.pdf

OATT & MST Updates

- ◆ **OATT 6.1, 6.2, and 6.5 – Ministerial Changes for defining which transactions are exempt from certain fees**
- ◆ **OATT 16.3 – Ministerial Cleanup**
- ◆ **MST Section 4.4.4 – Updates for CTS Enabled Proxies at NE buses**
- ◆ **MST Section 17.1.6 – Ministerial Change to the definition of Interface ATC Constraint**

Coordination Agreement Revisions

◆ Body

- *Article 1.0 – Revised definitions and added new definitions for CTS implementation*
- *Section 2.2 – Administration of CTS and implementation of other arrangements added to purpose of agreement*
- *Section 4.10 – Revised to reference another section of agreement for consistency*
- *Article 6.0 – Revisions to exchange of information and confidentiality*
- *Sections 6.1 – Revised to authorize sharing information for administration of CTS*
- *Section 6.2 – Revised description of Data Exchange Contact*
- *Section 6.4 – Revised authority to share Confidential Information not specifically identified in agreement*

Coordination Agreement Revisions

◆ Body (cont.)

- *Section 6.5 – Revised obligations to protect Confidential Information*
- *Section 6.6 – New section to address unauthorized transfer of 3rd-party intellectual property*
- *Section 7.2 – 7.4 – General cleanup of Coordination Committee duties and ministerial updates*
- *Section 9.2 – Removed, material covered in Article 6*
- *Section 11.1 – Added description of scheduling checkout procedures for Day-Ahead and Real-Time*
- *Article 12.0 – Added reference to new Schedule D – CTS*
- *Section 13.3 – Ministerial updates*
- *Section 13.4 – Added language to not limit payments for Emergency Energy*
- *Section 13.5 – Ministerial updates*

Coordination Agreement Revisions

◆ Body (cont.)

- *Sections 17.1 - 17.2 – Ministerial updates*
- *Article 19.0 – Dispute Resolution process clarifications*
- *Sections 20.2 and 22.2 – Ministerial updates*
- *Section 22.3 – Added notification process between the Parties for self-reporting of potential violations by a Party*
- *Section 22.6 – Revised description of changes that will be deemed modifications to the agreement*
- *Schedule A – Updated E205W Intertie substation name*
- *Schedule B – General cleanup of Coordination Committee duties and ministerial updates*
- *Schedule C Article VI – Updated invoicing and payment provisions*

Coordination Agreement Revisions

◆ Schedule D – New for CTS

- *Article 1.0 – Provides an overview of CTS and links the Schedule D language to the respective Tariff of each Party*

- *Article 2.0 – Submittal of CTS Interface Bids*
 - NYISO hosts Joint Energy Scheduling System (JESS) bidding platform
 - All bids in JESS must have both NYISO and ISO-NE market participant identified
 - Users can set up trust relationships between individual NYISO and ISO-NE market participants to auto-confirm submitted bids

- *Article 3.0 – ISO-NE will calculate forecasted energy prices at the CTS interface (i.e., Roseton Proxy) based on varying interchange levels*

Coordination Agreement Revisions

◆ Schedule D – New for CTS

- ***Article 4.0 – Scheduling External Transactions at CTS Enabled Interfaces***
 - Describes how CTS Interface Bids are evaluated, and when and how CTS interface congestion is assigned
- ***Article 5.0 – CTS Enabled Interface Ramp Limits***
 - CTS Enabled Interface Ramp Limits
 - Transfer Limits Reflecting Reliability Conditions
 - Establishing Transfer Limits for RTC
 - Interaction Between Transfer Limits and Ramp Limits
- ***Article 6.0 – Settlement Provisions***
 - Each area performs independent real-time settlement based on respective Tariffs
 - CTS interface congestion will be added to NE Roseton Proxy LMP and NY Sandy Pond Proxy prior to ISO-NE settlement

Coordination Agreement Revisions

◆ Schedule D – New for CTS

■ *Article 7.0 – Non-Standard CTS Operation*

- Describes the permitted modifications to ISO-NE Supply Price Points and ISO-NE Transfer Limits during various failure conditions
- Provision describing when a CTS interface may be scheduled only on an hourly basis

■ *Article 8.0 – Joint Energy Scheduling System Customer Service; Maintenance ; Suspension of CTS; Cooperation*

- Each Party is the primary contact for its respective Market Participants
- Areas will coordinate maintenance that may impact CTS processes
- Under extreme conditions the Parties may need to suspend the normal CTS scheduling processes.
 - In such conditions, the Parties will agree to an interchange schedule
- The Parties agree to review the data and mutually identify or resolve errors and anomalies

Coordination Agreement Revisions

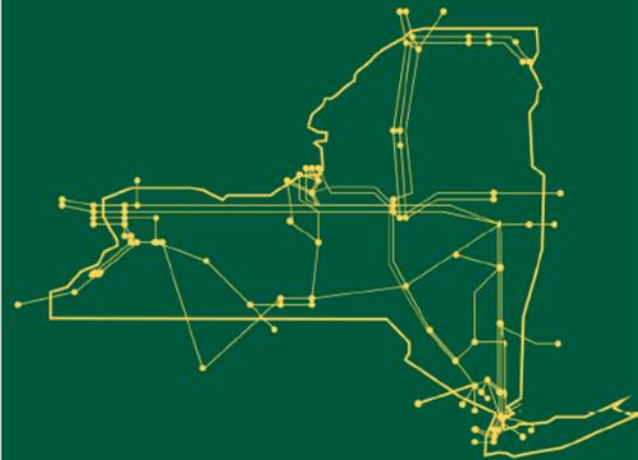
◆ Schedule D – New for CTS

- ***Article 9.0 – CTS Change Management Process***
 - Provisions for coordinating future changes that may impact CTS processes
- ***Article 10.0 – Audits, Certification and Testing***
 - Provisions to exchange certification, audit information, and SOC report information associated with CTS related software
 - Provision addressing cyber-security and obligation to inform other Party of CTS-related cyber-security breaches
 - Provision obligating parties to test CTS processes and software prior to implementation and upon making major changes

Next Steps

- ◆ **Coordination Agreement & Tariff**
 - *MIWG (March 2015)*
 - *MIWG (April 2015 - May 2015)*
 - *BIC (June 2015)*
 - *MC (July 2015)*
 - *BOD (August 2015)*
 - *Filing (August 2015)*
 - *Request FERC Approval (October 2015)*

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