



Cross Sound Cable Interim Concept of Operations

February 10, 2004

Scheduling and Pricing
Working Group



CSC Background

- NYISO is pursuing a project A-619 which will provide an external proxy bus representation for controllable tie lines (HVDC and/or PAR) which span two control areas. The project addresses both the external node pricing calculations as well as scheduling of primary and secondary party transactions.
- A-619 will be initiated in March of 2004 with the completion of the project targeted for Summer 2005, subject to the requirements of higher priority projects such as SMD 2.0 and billing software enhancement projects.
- Given the importance of allowing secondary scheduling on the CSC as soon as possible, NYISO has been working with TransEnergie, LIPA and ISO-NE to develop an Interim Solution that would permit the scheduling of secondary service on the Cross Sound Cable
- Any required NYISO committee approvals and tariff filings must be completed by the end of March 2004 to allow for a Summer 2004 deployment.



CSC Proposed Solution

- In order to permit multiple parties to schedule transactions over the CSC, NYISO is proposing an interim CSC scheduling solution that will provide secondary service scheduling capabilities on the New York side of the cable by employing an independent third-party Scheduling Administrator (“SA”) to aggregate CSC user schedules into a single net schedule
- The SA will act as NYISO’s Agent in administering the operation of the CSC



Interim CSC Limitations

- In order to make the interim solution possible and consistent with existing software, the NYISO will place the following limitations upon the scheduling of the CSC:
 - All transactions will be required to be price takers in the NYISO market under the interim solution;
 - Any transaction that has not been scheduled by ISO-NE will be removed from consideration;
 - Wheels through NYISO with an external control areas involving the CSC will not be permitted;
 - Bilateral scheduling using the Shoreham proxy as a source or a sink will not be permitted;
- Market mechanisms exist in New York and neighboring markets that permit market participants to accomplish the same result as a wheel-through or bilateral transaction on a purely financial (as opposed to physical) basis.



Scheduling Administrator Functions

- Submit a schedule to the NYISO MIS that aggregates the use of the CSC by LIPA and third parties into a single net schedule
 - Counterflow transactions will be permitted
 - Imports to NYCA will be treated collectively as a proxy generator
 - Exports from NYCA treated collectively as a proxy load;
- Provide to the NYISO and ISO-NE all transaction information, including that of primary and secondary scheduling entities, needed to permit checkout in a timely fashion;
- Ensure that all parties seeking to transact over the CSC possess the requisite authority to transact within the markets administered by the NYISO and satisfy applicable NYISO transactional credit and collateral requirements;
- Settle schedules with individual counter-parties (including LIPA) pursuant to all applicable tariff provisions; and
- Make all information regarding its operations and decisions available to the NYISO



Credit Issues

- The SA will act as the NYISO's agent in administering the scheduling and settlement of transactions over the CSC.
- The SA will also be responsible for assuring that all CSC users are transacting within the credit limits determined by the NYISO.
- On a daily basis, NYISO will provide the SA with information concerning the credit status of potential CSC customers. The SA will not accept bids or offers from any entity that does not have approved credit status with the NYISO.
- The SA will retain liability for any failure to follow the NYISO's procedures, and/or for any fraudulent behavior by its employees. The SA will be required to obtain appropriate liability insurance to protect itself and the NYISO against such risks.



Billing Issues

- The interim procedure will establish both a “generator bus” and a “load bus” for the CSC in order to handle the total transactions in both directions (i.e. – North to South, and South to North, respectively).
- The SA will provide the total schedules in both directions to the NYISO on an hourly basis. The NYISO will calculate the bills to reflect the payments/charges on the basis of these total schedules on an hourly basis. Total Northbound schedules (i.e. – “loads”) will be charged the appropriate rates for external TSC, NTAC and ancillary services.
- NYISO will provide the necessary information on such schedules to the TOs for billing of the TSC charges per the current OATT
- The SA will provide preliminary “behind the net flows” settlements with individual customers to the NYISO. NYISO will review such settlements and direct MPs to transfer any monies owed the NYISO into the appropriate NYISO bank account. The NYISO will directly transfer appropriate funds owed to MPs to their NYISO bank account.
- The NYISO will compensate the SA directly for its services.
- The SA will NOT deal with the settlement/billing of any charges for the use of the CSC itself. Such charges are determined under the CSC Tariff. The SA may have to provide schedule information to CSC for its billing purposes.

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Next Steps...

- Resolve any remaining technical issues,
- Reach agreement with LIPA, TEUS, and NYISO regarding CSC Interim project cost responsibilities,
- Identify and develop needed tariff language,
- The following schedule is contemplated:
 - S&P Review: February 10
 - BIC Review and Vote: February 18
 - OC Review and Vote: February 19
 - MC Review and Vote: March 2 (or Special)
 - Board Review and Vote: March 16
 - FERC Filing: ~March 31
 - FERC Approval: ~June 1
- Proceed in parallel with SA selection
 - Contract with SA by end of February
 - Implementation & training to support June “go live”

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Appendix : Draft Interim CSC Scheduling Protocol

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CSC Protocols – Schedule Day minus 1

- By 0400 NYISO MPs submit CSC transactions and associated tag info to SA.
- By 0500 the SA submits the aggregate (net) of MPs' CSC transaction schedules into the NYISO SCUC as a price taking generator or load (depending on the net flow direction). To the extent that the MP's submitted transactions exceed the TTC the SA will only submit net MW value limited to the CSC TTC.
- By 1100 the SA receives SCUC schedule.
- By 1200, ISO-NE Market participants submit Real-Time bids/offers, which may be self-scheduled or price sensitive, at the Shoreham bus into the ISO-NE Enhanced Energy Scheduling (EES) system
- After the NYISO DAM results have been posted, the NYISO will inform the SA of the final DAM hourly aggregate schedule for the CSC. To the extent necessary to conform the DAM schedule from SCUC to the MP's submitted transactions, the SA will pro-rate the appropriate MP transactions
- The SA provides the final DAM MP transactions that comprise the SCUC aggregate schedule. The final DAM MP transactions can be used for checkout purposes, similar to the day-ahead NYISO/ISO-NE checkout of transactions on the AC ties.
- ISO-NE rules do not provide for pre-scheduling of transactions on external ties. As such, day-ahead NYISO scheduled transactions are purely financial and have no bearing on the set of transactions that may (or may not) be scheduled during the operating day



CSC Protocols – Schedule Day

- Up to 2 hours prior to the operating hour, MPs may submit self-schedule bids and offers to ISO-NE's EES and corresponding proposed schedules and tags to the SA.
- 90 minutes prior to the operating hour, the SA will pull the list of transactions accepted by EES. Any transaction submitted to the SA that does not have a corresponding EES-approved transaction will be rejected. Any transaction submitted by an MP that does not satisfy the NYISO's creditworthiness criteria will be rejected
- 75 minutes prior to the operating hour, the SA bids the aggregate (net) schedule of MPs' CSC transaction into the NYISO BME as a price taking generator or load (depending on the net flow direction). To the extent that the submitted transactions exceed the CSC's TTC, the SA will pro-rate all transactions down such that the net total meets actual TTC limits.
- Transactions denied based on the NYISO's creditworthiness requirements are communicated to ISO-NE schedulers who manually input the changes into TransMart (the ISO-NE counterpart to NYISO's IS+).
- The SA also reports reductions in TTC resulting from New York facility outages or New York operational issues to ISO-NE and this information will also be manually input into TransMart and addressed in the New England scheduling process.
- 45-30 minutes prior to the hour, BME posts the schedules for the upcoming hour.
- 45-30 minutes prior to the operating hour the list of CSC transactions that have been scheduled by ISO-NE is communicated to the SA and the SA updates the NYISO transactions, as required. ISO-NE and NYISO check out the CSC transactions for the upcoming hour
- The agreed upon schedule is loaded for the hour and ISO-NE notifies TransEnergie of the schedule for the CSC for the upcoming hour.
- The SA communicates to MPs the status of their transactions (accepted or rejected by BME).

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CSC Protocols – In-Hour

- Following checkout, the SA, NYISO and ISO-NE all have an identical list of approved transactions scheduled to flow on the CSC for the operating hour. The ISO-NE TransMart system is loaded with all transaction information necessary to prioritize any cuts that need to be made in-hour, whether on a NERC priority, timestamp, or economic basis.
- To the extent that in-hour cuts of CSC transactions are required by ISO-NE, ISO-NE will run TransMart to identify the appropriate transaction(s) to be cut. Such cuts will be communicated to the SA and the NYISO via a secure webpage. ISO-NE will also communicate the revised CSC schedule to TransEnergie. TransEnergie will ramp the CSC to the revised schedule as soon as practicable.
- To the extent that in-hour cuts of CSC transactions are required by NYISO (or LIPA), NYISO will communicate its needs directly to ISO-NE. ISO-NE will run TransMart to identify the appropriate transaction(s) to be cut. Cuts determined by ISO-NE will be communicated to the SA and to the NYISO via a secure webpage. Following confirmation by the NYISO, ISO-NE will communicate the revised CSC schedule to TransEnergie. TransEnergie will then ramp the CSC to the revised schedule as soon as practicable. NOTE:

[NOTE: This procedure, where ISO-NE determines which transactions are cut for issues in New York, is limited to the Interim solution. In the end-state solution, NYISO will make such determinations.]



CSC Protocols – After the Hour

- Following the operating hour the NYISO settlement department and ISO-NE checkout or finalize all transactions for Quality Assurance purposes to assure agreement on which transactions flowed and which did not.
- The SA shall submit data identifying import and export transactions on an hourly basis (total hourly load and total hourly generation for the NYCA/CSC interface) via the NYISO's web-based reconciliation program by 5:00 p.m. on the day following the day on which the transactions being reported occurred. The SA must then perform the corresponding settlement for the individual transactions. This settlement must account for balancing between the DAM and RTM and for ancillary service charges associated with the CSC transactions. The net amount of this load and generation must equal the real-time physical schedule that is metered on the CSC. The SA will provide to the NYISO's settlement department a proposed settlement with each MP that scheduled and import or export during the relevant period. Once confirmed with ISO-NE, the NYISO will appropriately credit or bill MPs from the CSC settlement account.
- The SA shall retain sufficient transaction information to allow ISO-NE and NYISO Settlement groups to confirm historical transaction/scheduling data for at least 24 months.