BUSINESS ISSUE DISCOVERY

Concept of Operation

Bilateral Netting

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1. REQUISITE BUSINESS CASE

1.1 Description

Background

"Bilateral netting" makes use of new bilateral transaction features whereby energy may be sourced from internal locations other than a generation source and delivered (sinked) at an internal zonal hub. Transactions may then be sourced at the zonal hub to deliver the same energy or portions thereof to other delivery points or to the same zonal hub but to a different MP effectively transferring title and financial responsibility for the energy to that counterparty.

Bilateral netting was proposed as a market feature by some Market Participants several years ago but failed to gain traction as a priority issue through the governance process. Subsequent FERC action by concerned Market Participants resulted in a FERC order in 2006 for the NYISO to proceed with concept development. FERC also initiated a dispute resolution process in late 2006 which resulted in an agreed upon process and schedule to develop a concept, take it through the NYISO governance process, and attempt to gain MC and BOD approval for a timely implementation.

This Concept of Operation document (COO) is intended to provide a description of a candidate bilateral netting feature for use in the NYISO market. The initial document is intended to be expanded and modified through internal ISO and Market Participant and review and revision. The document should address the feature in sufficient detail for all parties to make a reasonable cost benefit assessment sufficient for the ISO and Market Participants to: i) determine the advisability of developing such a feature and ii) determine the priority of such development in the scheduling of future market enhancements.

A series of meetings in early 2007 with representative users of such a function were conducted in order to ensure that an initial concept straw proposal would address the main considerations of the target user community. Likely users included suppliers, marketers, traders, and LSEs. The results of those discussions were used to craft the approach recommended in the initial version of the COO.

Concept Overview

The current NYISO market model requires one to source any internal bilateral transaction at a physical energy source (a generator bus which requires the approval of the generator owner/operator, or a proxy bus) and sink any such transaction at a designated zonal sink. The proposed concept does not change this current internal bilateral mechanism.. This new bilateral netting concept includes new features that allow energy to be delivered from a generator source and locations other than a generation source and to be delivered to a zonal hub (a bilateral netting location). Transactions may then be sourced at the zonal hub to deliver the same energy or portions thereof to other delivery points or to the same delivery point but to a different MP effectively transferring title and financial responsibility for the energy to that counterparty. Through the use of such a mechanism smaller LSEs can arrange for trading organizations to deliver energy from a variety of sources to such a zonal hub where they will then take title to the energy and then to deliver energy from such a zonal hub to the LSE's zonal sink bus. This cannot be done easily in the NY market because the current rules provide no way to source an internal bilateral at other than a generator bus. No means exist for a marketer/trader/ to acquire energy from a variety of internal sources and aggregate such purchases for redistribution (resale) to LSEs. This new bilateral netting concept would also allow trading of energy between marketers at zonal hubs within the same or different zones. The concept presented here is to develop a variation of the NYISO's current concept of virtual trading buses assigned to MPs qualified by the NYISO to conduct virtual trading. The netting concept variation will be focused on internal bilateral energy trading and will allow qualified MPs to sink and source internal bilateral transactions at designated zonal bilateral trading

locations where the responsible MP will balance its net transaction positions at the spot price of the applicable market (DAM or RT).

1.2 Business Impacts

- Bilateral netting applies only to internal bilateral transactions and has no affect on external transaction management.
- Bilateral netting will be applicable to both the DAM and the RTM. Each transaction will settle in the market in which it is scheduled.
- Settlement and MIS software will be the major subsystems impacted by the netting function. Design will likely utilize an enhanced version of the virtual trading models.
- A third area to be impacted will be credit monitoring and the interface between credit and settlements subsystems.
- All aspects of this function should be automated at initial implementation. The NYISO cannot support early implementation through manual processes as they would be required in scheduling, settlements, dispatch operations, and credit tracking.

1.3 Business Risk/Reward (cost/benefit)

Risks/Costs

- MIS and Settlements design and development are expected to extend current bilateral transaction scheduling functionality.
- Automated credit monitoring will be required. Existing credit rule modifications and guidelines to accommodate this new function will also need to be developed.
- Implementation cost estimate – TBD

Reward/Benefit

- Bilaterl netting is intended to facilitate trading by providing additional flexibility for marketers and LSEs in carrying out their physical trades.
- Bilateral netting may support a means whereby retailers or small LSEs may make better use of the creditworthiness of larger marketing institutions.
- This function is consistent with the PSC and FERC emphasis on support for development and expansion of retail choice.
- This functional concept development was ordered by FERC as a potential means to reduce the cost of credit in the NYISO that they feel may represent a barrier to entry of smaller LSEs.

1.4 Definitions, Acronyms, and Abbreviations

Term	Definition
BIC	Business Issues Committee
COO	Concept of Operation
DAM	Day-ahead Market
Kw	Kilowatt(s)
LBMP	Location Based Marginal Price (or Pricing)
LSE	Load Serving Entity
MIS	Market Information System
MP	Market Participant
MW	Megawatt(s)
PPT	Project Prioritization Team
PSC	New York Public Service Commission
RTM	Real -time Market
FERC	Federal Energy Regulatory Commission
TBD	To Be Determined

1.5 References

- Regulatory filing to FERC by NYISO of January 16, 2007
- Status report of the New York Independent System Operator, Inc.

  in Docket Nos. ER03-552-011 and ER03-984-009
- PPT presentation to the MIWG on 6/25/07

2. REQUIREMENTS

2.1 Software Functional Changes Required

Functions provided by the software investment include:

- Modification of **virtual bus models to allow the netting of an energy position at a bilateral netting location** for a given market for each hour for each qualified participating MP.
- Sell MW from sink-designated transactions into the respective market at LBMP for that location (Zonal Energy Price) and buy MW for source-designated transactions at LBMP for that location (Zonal LBMP).
- NYISO bilateral netting transactions will be conducted in MW increments as are all other energy transaction bids and offers.
- Modification (as needed) to **bid formats, up load download software, and other MIS processing** software to accommodate:
    - Sourcing internal bilateral transactions at a bilateral netting location in addition to a generator bus.
    - Sinking internal bilateral transactions at a bilateral netting location in addition to a current zonal sink bus.
    - Modification to SCUC data input and output processing to maintain tracking of the above changes for transactions present at DAM and RT market closing time.
    - Bilateral netting may or may not require changes to the contract definitions.
- Modification to **settlement software** to properly account for transaction activity at the virtual netting locations
- Development of an **interface between settlements and credit analysis software** to provide appropriate data needed to support credit tracking software functions specific to Bilateral Netting.
- Development of **credit tracking functions consistent with credit requirements** to be established for MPs qualified to participate in bilateral netting.

2.2 User Characteristics

The primary users of the software will be:

2.2.1 Internal NYISO Staff

- **Credit Management:** Monitoring and managing the credit exposure of MPs. Specifically changes in individual customer exposure resulting from transfers of financial responsibility, sales, and purchases of spot energy at virtual netting locations.
- **Customer Settlements:** Responsible for ensuring that accurate settlement information is produced and supplied to the market. Incorporation of new settlement rules associated with trading at zonal trading hub locations.
- **MIS product management:** Responsible for upload download software will need to support MP user testing of new protocol features for qualified MP bilateral netting users.

- **Data Warehouse:** Changes and additions will be required to support the storage and access to data associated with the bilateral netting function.

2.2.2 External Users (MPs)

- **Marketers and traders:** These users will utilize the additional flexibility provided by the bilateral netting functions to physically carry out forward contracts for energy as well as to clear forward position in the DAM and RTM. The additional flexibility provided by this function may also make it possible for larger marketers to package services for retailers and smaller LSEs that may include sleeve arrangements whereby the smaller LSEs can take advantage of the larger organization's credit position with the NYISO.

- **LSEs:** this feature can simplify the task of acquiring supply contracts and in some cases may reduce the overall cost of doing business in the NYISO for retailers.

3. CORPORATE CONTINGENCIES & DEPENDENCIES

As with any project, this issue has various risks and dependencies:

3.1 FERC compliance

We are currently subject to a FERC order including the results of a dispute resolution process that requires the NYISO to develop the COO for a bilateral netting function for possible implementation if approved and funded by the NYISO governance process. The agreed upon schedule of activity is:

- March 2007 – Begin meeting with potential users, initial draft COO ready for review and discussion
- May 31 2007 – Draft COO complete with input from selected users
- June 2007 – Present COO to MIWG for review and comment
- June thru November Present final COO to BIC, PPT, MC, BOD for funding and, if funded, scheduling of implementation

3.2 Project Scheduling

While COO development and support is scheduled and funded through 2007, a bilateral netting project is not currently part of 2008 project planning. This may become a FERC mandated implementation project in 2008 or beyond depending upon the results of MC, PPT, and BOD action in late 2007.