eSchedules Functionality for NY through Third-Party Providers

September 10, 2000

Ellen Wolfe
Altra Software Services

Background/Overview

The NY ISO is lacking the capability for market participants to schedule and settle internal bilateral transaction as part of their ISO activities. (All market participants can currently do is schedule their bilateral transactions as injections and withdrawals). Such infrastructure exists in other markets, such as PJM through their eSchedules interface. The ISO has been asked to provide such functionality, but resource constraints have prevented them from beginning development of this capability to date.

This paper explores whether and how third-party solutions could provide adequate functionality in lieu of ISO development. It discusses possible approaches and the opportunities and limitations of each: the impediments to exchanges providing full functionality and the tradeoffs of levels of integration of any third-party solution. The intention is to suggest that a third-party solutions may enable the NY ISO market place to implement its desired functionality sooner. Within the range of third-party solutions, however, the paper strives to be unbiased, with the goal of stimulating discussion rather than advocating any particular vendor's solution.

Discussion

We see two fundamental approaches to accelerating the platform for bilateral trading within the NY ISO. The goal of each of these approaches is to provide for bilateral trading without requiring significant development effort on the part of the ISO.

The first is to rely on one or more external exchanges, which settle for trades independently of the ISO. The second is for a third party to develop software to allow for scheduling and settling of bilateral transactions in more of an ISO fashion. And these solutions also are not mutually exclusive.

1. Using Exchanges:

A common approach to proving for bilateral transactions is to use independent exchanges. Electricity and gas have been transacted across such exchanges for some time. However, exchanges have traditionally been limited to major trading hubs. For exchanges to serve as the primary mechanism for bilateral trading and settling *within* an ISO however, points of

NY ISO/eSchedules Discussion Paper
Presented to the Market Structures Working Group
September 10, 2000

Ellen Wolfe
Altra Energy Technologies
1 of 6

transaction would need to coincide with commercially significant delivery points of the ISO. Further, products exchanged would have to include all the significant products for which parties want to trade.

Existing exchanges traditionally have not provided the specificity of trading points and the specificity of products sufficient to serve as *the* bilateral trading mechanism.   Using an exchange for this functions exposes a conundrum, as follows: Trading parties find the exchange approach desirable because there usually is little or no development cost directly charged to users; this is a highly desirable characteristic. Exchange administrators generally intend to recoup costs by adding tolerable transaction fees. Herein lies the conundrum. If exchange providers are to cover those costs, volumes of transactions need to be high enough that cumulative transaction fees result in a net revenue.   The incentive, therefore, is for exchange providers to focus at major delivery points and to provide trading platforms for highly-traded products. Thus we end up with the result of few exchanges offering trading points within the NY ISO, and no exchanges to date providing trading platforms for products other than energy (ancillary services, for example) within NY.

For an exchange to provide a viable solution to NY's lack of a bilateral mechanism, analysis would have to show exchange decision-makers that sufficient trading volumes of ancillary services, and localized energy products, would occur to cover their development and administrative costs.

That providers are still waiting to roll out these services most likely means that they do not yet see the value relative to other opportunities they are faced with. With time, exchanges are more likely to move into providing such services. But will the timing otherwise meet the needs of NY ISO market participants?

2. Using Third-party Software Development

Third-party development of a bilateral (eSchedule-like) platform for the NY ISO is consistent with how much of ISOs' software has been developed. Few ISO's have in-house staff developing all of their software. Rather ISO's often let contracts for development of various systems.

There are a range possibilities within this approach, which vary by the extent to which they rely on ISO systems and personnel support.

2.a Independent solution:

Figure 1 shows a possible configuration where parties could designate and settle bilateral transactions, completely outside of the ISO.   Software development for this approach likely could be performed the quickest, assuming that the ISO's resources are the strongest constraint to progress. No direct interfaces to the ISO are needed; even prices could be gathered from already published to the public marketplace. This approach, however, may require ongoing involvement of the third party, and in areas outside the core capability of software vendors per se.   If the

market participants could settle for traded products outside of the third party (i.e. in a manner similar to how traditional bilaterals have been settled, through participants' payment agreements with one another), software for this application is likely available "off-the-shelf" today. Such functionality could be implemented either by providing software to the ISO or by accessing it through third-party servers.

However, if parties wanted a centralized settlement feature as well, this approach would require the provider to establish credit requirements and have proper controls for the financial liability of all the deals. These barriers have been shown to be large, and would likely drastically limit parties' willingness to provide such services.

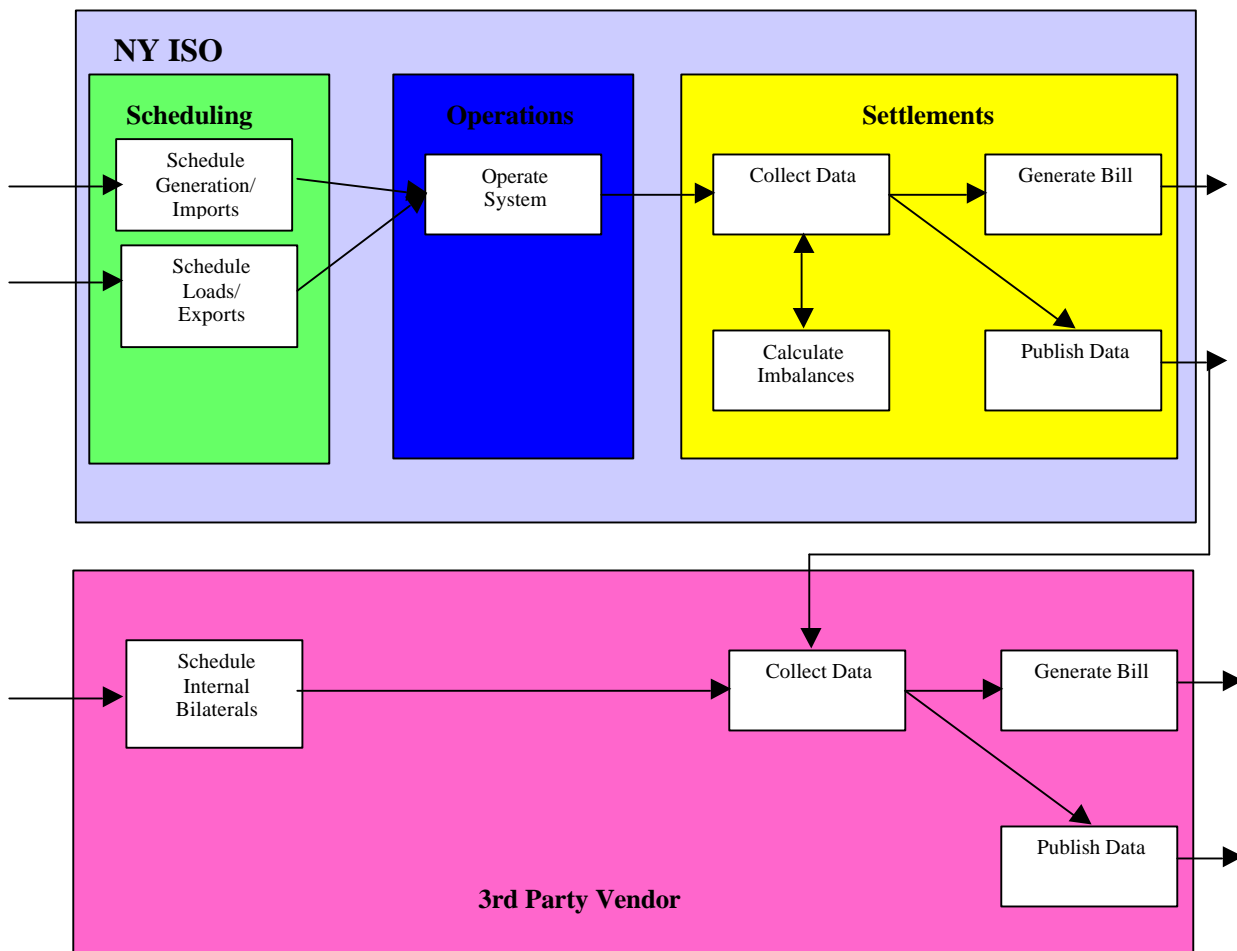## 3rd Party Providing Independent eSchedules Functionality

NY ISO

| Scheduling | Operations | Settlements |

Schedule Generation/ Imports

Schedule Loads/ Exports

Operate System

Collect Data

Generate Bill

Calculate Imbalances

Publish Data

3rd Party Vendor

Schedule Internal Bilaterals

Collect Data

Generate Bill

Publish Data

Figure 1

NY ISO/eSchedules Discussion Paper
Presented to the Market Structures Working Group
September 10, 2000

Ellen Wolfe
Altra Energy Technologies
3 of 6

2.b Quasi-Integrated Solution and Thoroughly Integrated Solution:

Figure 2 shows a quasi-integrated development approach. In this instance a vendor could develop an eSchedule-like front end as well as the database and other intelligence to track bilateral transactions scheduled. This approach would then integrate with the ISO's existing settlement process. Modifications would be required on the part of the ISO to capture the bilateral settlements. However, such settlements could be limited to additional charge types where the vendor software populates the quantity and price. The ISO would then act as the financial settlement house.

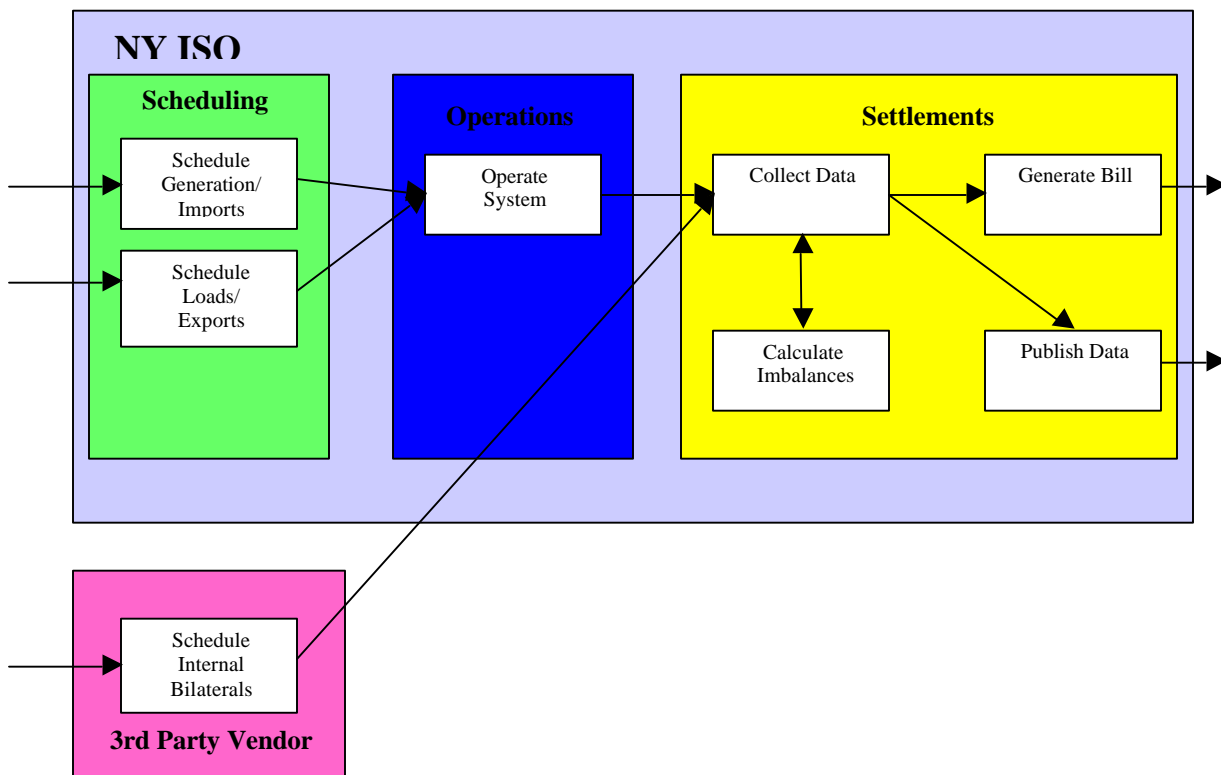## 3rd Party Solution - Partially Integrated

Figure 2

Taken to its extreme, this approach would be like an internal development effort at the ISO, where the scheduling of the bilaterals uses, or at mirrors, existing ISO infrastructure. The systems would then be as represented in Figure 3.

Fully Integrated E-Schedules Functionality

NY ISO

Scheduling
- Schedule Generation/ Imports
- Schedule Loads/ Exports
- Schedule Internal Bilaterals

Operations
- Operate System

Settlements
- Collect Data
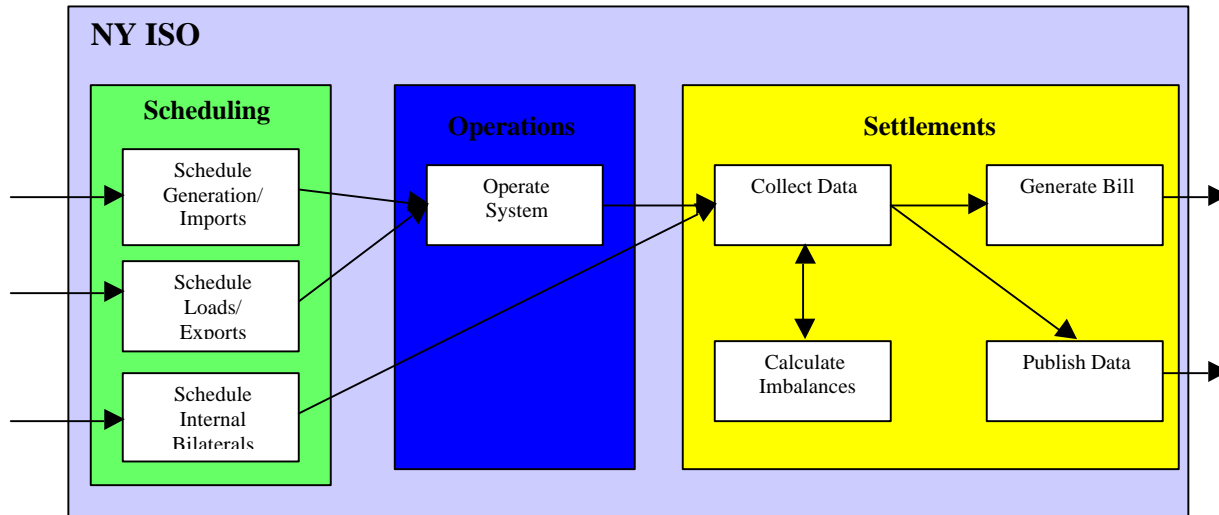- Generate Bill
- Calculate Imbalances
- Publish Data

Figure 3

The value of the quasi-integrated approach, however, is the ability to proceed absent ISO resources. ISO requirements for this integrated approach would be limited to defining interface requirements for the settlement data. However, this approach begins to hit against constraints that are likely currently causing project delays.

Summary

This paper discussed alternative solutions to the ISO's developing infrastructure for bilateral trading within the NY ISO. Viable solutions do exist to speed the implementation of such trading activities. It may be unlikely that third-party exchanges fully meet the participant's needs for bilateral trading with the NY ISO in the short run, due to disincentives for such providers to develop for trading at disperse points.

However, software solutions are available to aid the participants in bringing the functionality either within, or outside of, the ISO.

We encourage further discussions with market participants, as they are the users of the capability, and - ultimately - the funding parties; the market participants are the ones who can make the trade-offs regarding integration vs. timeliness and cost, etc. Similarly, any third-party solution will require teaming with the ISO managers and other staff; any integrated solutions will require a close technical and policy working relationship, and even independent solutions could

NY ISO/eSchedules Discussion Paper
Presented to the Market Structures Working Group
September 10, 2000

Ellen Wolfe
Altra Energy Technologies
5 of 6

impact the ISO's outstanding development priorities.   Participants and the ISO as well as vendors and exchanges will benefit from common discussions, and from looking beyond traditional in-house development options.

Altra Software Services is division of Altra Energy Technologies.   Headquartered in Houston, Texas, Altra is a leading provider of energy management solutions, delivering transaction management products, electronic trading products and integration services to many of the world's most successful energy companies.   Altra develops scheduling and bidding software, as well as operates an electronic brokerage.   Ellen Wolfe is a Market Specialist with Altra.   She has assisted market participants in California, Mountain West, ERCOT, and other markets throughout the U.S.