NYISO Business Issues Committee Meeting Minutes
May 3, 2011

10:00 a.m. – 3:30 p.m.

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1. Introductions, Meeting Objectives, and Chairman's Report

The chair of the Business Issues Committee (BIC), Mr. Bart Franey (National Grid), called the meeting to order at 10:00 am and welcomed members of the BIC. The members of the BIC identified themselves and attendance was recorded. A quorum was determined.

2. Approval of Minutes –March 9, 2011 – Discussion/Vote

Motion # 1:

The Business Issues Committee (BIC) approves the March 9, 2011 meeting minutes.
The motion passed unanimously by show of hands with abstentions.

3. Market Operations Report /Seams Report

Market Operations

Mr. Rana Mukerji (NYISO) provided an overview of the Market Operations report. The slides presented were based on preliminary data through April 19th with a full report to be provided at the upcoming Management Committee meeting.

Mr. Younger (Slater Consulting) asked if the NYISO could have data available for the end of the month on the LBMPs so that Market Participants could view a true full month report, rather than a preliminary report. Mr. Mukerji said Market Mitigation and Analysis has a process but took an action to look into this question. Ms. Nicole Bouchez (NYISO) added that the data comes through the billing data warehouse (DSS), and so the NYISO waits until the bills are final before collecting the data, but would look into adding additional data.

Seams

Mr. Mukerji provided an overview of the Seams Report. The NYISO has begun reporting data needed for the NERC Parallel Flow Visualization (PFV) tool to calculate generation to load flow impacts on flow gates. Once the vendor software has been completed, a test period of 12-18 months will occur after which point, generation to load impacts on individual flow gates are expected to be included in the IDC calculations supporting the NERC TLR curtailment process.

Mr. Rich Miller (Con Ed) asked if this software was deployed at both PJM and ISO-NE. Mr. Mukerji said software deployment schedules are similar for all ISOs. Mr. Robb Pike (NYISO) said it is a NERC tool developed by OATI, so software deployments have to be completed at all ISO's to be compatible with this new tool. Mr. Franey asked if this data was real time gen-to-load data. Mr. Robb Pike said it was real time.

4. Planning Update

Mr. John Buechler (NYISO) gave an update on inter-regional planning issues. On April 11th, the EIPC Stakeholder Steering Committee (SSC) approved the revised modeling assumptions for the EPA non-carbon regulations as well as several other corrections to the initial "Business As Usual" (BAU) assumptions. Charles River Associates re-ran the BAU with the updated modeling assumptions and posted the results on April 20th for review by the SSC on April 29th. At that time the SSC decided to use the revised EPA assumptions as the basis for the remaining futures. The next SSC meeting is scheduled for May 18-19th in Charlotte at which time the SSC is expected to finalize all of the input assumptions for the remaining 7 futures and sensitivities.

Mr. Howard Fromer (PSEG) asked what the driver was on the changes to the assumptions. Mr. Buechler said the EPA proposed non-carbon regulations was the biggest change. The EPA is a participant in the EIPC process and an ex-officio member of the SSC, but was not able to comment on the initial modeling assumptions since the proposed rules had not yet been issued. Ms. Erin Hogan (NYSERDA) added that after the first three runs, there were concerns of concentration of combined cycle generation in certain Midwestern regions, but the SSC decided not to start tweaking it.

There will be a late June IPSAC WebEx meeting to present the results of production cost modeling work that has been performed, to provide an update on environmental issues and EIPC, and to have a representative of the Northeast Gas Association talk about gas supply infrastructure issues.

Mr. Jackson Morris (Pace Energy) asked about if EIPC discussed proposed EPA issuance on greenhouse gases for existing plants (111D in July regulation). Mr. Buechler said there are two major futures that deal with a national carbon rule. Ms. Hogan said EIPC doesn't have any GHG regulation explicitly modeled in the BAU, but does have futures 2 and 3 which assumes a national carbon reduction requirement.

5. Dispute Resolution – Tariff Modifications

Mr. Timothy Duffy (NYISO) reviewed the draft revisions to the Tariff with regard to Dispute Resolution, and gave an overview of the issues associated with the existing provisions.

There was a discussion on maintaining uniformity throughout the tariff. Mr. Kevin Lang (Multiple Intervenors) asked why, if the objective was uniformity, were the various stand-alone dispute resolution provisions retained. Mr. Duffy replied that there were certain nuances related to timing and other factors specific to individual markets that precluded a general dispute resolution process from being applied in all cases.

By way of example, Ms. Mollie Lampi (NYISO) raised a dispute pertaining to the ICAP load forecast as a dispute requiring specific handling with specific governing language elsewhere in the tariff. In this case there is a requirement for tighter timelines, specifically the resolution of a disputed issue within 5 days, than required in general practice, thus necessitating the retention of existing specific provisions.

Mr. Rich Miller (Con Edison) stated that Con Edison is not fully confident that the list of specific exemptions was exhaustive, asked whether the NYISO or Market Participants were confident, and requested that a more general exemption clause be inserted in place of the specific exemption list.

Mr. Lang said it would make more sense to have the OATT and the ISO Agreement both cross reference Section 11 of the MST. Ms. Lampi said she was uncomfortable cross referencing Section 11 within the ISO Agreement so she suggested that the NYISO copy Section 11 in its entirety into the ISO Agreement. Future changes would be made in both places to ensure harmony between all three documents.

Motion #2:

The Business Issues Committee (BIC) hereby recommends that the Management Committee approve revisions to the NYISO's Services Tariff, OATT and ISO Agreement with regard to available dispute resolution procedures as described in the presentation made at the May 3 2011 Business Issues Committee meeting.
The motion passed unanimously by a show of hands with abstentions

6. Joint ISO/RTO FERC Filing re: Seams Reporting
Mr. John Buechler (NYISO) reviewed the presentation included with the meeting material. As presented at the March 9, 2011 BIC meeting, the NYISO would like to eliminate the posting of the quarterly seams report for a variety of reasons. The NYISO, PJM, and ISO-NE are preparing an informational filing to FERC by mid-May outlining the reasons for discontinuing the reporting, a description of stakeholder discussions, and examples of continued opportunities for stakeholder updates and input on seam topics. Both PJM and ISO-NE have had discussions with their stakeholders and have received general support for the elimination of the quarterly reporting process.

Mr. David Clark (LIPA) said LIPA still opposes this proposal as a collective process before FERC on the status of seams issues is useful. He stated that LIPA would like the NYISO to consider identifying capacity market issues that should be seams issues. Capacity issues have not been raised to the level of acknowledgement of other ISOs. He would like a process created at the NYISO to identify seams issues and track those seams issues, including capacity issues. He said there is a need for adding a document to explore this and to have a reporting requirement. Mr. Mukerji said the NYISO is committed to continue the monthly BIC seams report for its stakeholders. The NYISO could certainly include capacity issues as a separate item, and the NYISO has already taken strides to do this.

Mr. Miller said Con Edison supports this proposal, but agrees with LIPA and supports the idea of the inclusion of capacity market issues as part of seams discussion. This should be topic at a future ICAP Working Group meeting and the NYISO should ask for stakeholder comment.

7. PJM Presentation
Mr. Andy Ott (PJM), Senior VP of Market Operations, Market Settlements, Regulatory Affairs and Customer Service provided an update on Inter-Regional Coordination for BIC members. He noted that PJM's seams are more complicated than one realizes as PJM has organized markets to the north and no organized markets to the south, but ties to all those markets. A uniform concept will not work because of differences that exist between PJM and its neighbors.

With regards to interregional congestion management, PJM stakeholders have asked for improved information exchange between grid operators, more alternatives to support reliable operation, reduced interregional congestion costs, and reduced impacts of loop flows. With regards to seams coordination, stakeholders have asked for reduced barriers to interregional transaction scheduling; improved information transparency; and improved scheduling protocols. Mr. Ott noted that one thing that PJM is not after is to minimize production costs and squeeze economic efficiency. That is the job of stakeholders, not PJM's.

Mr. Bruce Bleiweis (DC Energy) asked about Mr. Ott's last statement re: PJM is not trying to minimize production costs. Mr. Ott said PJM had a debate on this a few years ago when PJM had a lot of congestion management discussions with MISO in 2005-2006. PJM's stakeholders at that time said no to PJM performing this role. PJM hasn't had those discussions in detail lately. Mr. Ott said obviously reducing barriers through interregional scheduling is a priority to make efficient scheduling, but to actually go beyond that is where PJM's role stops.

Mr. Franey said he paraphrased Mr. Ott as saying "squeezing out economic efficiencies is not PJMs job." Mr. Franey asked that is only at the borders, not internally. Mr. Ott said yes. A view shared by many, including National Grid, is that the Tie Optimization proposal is the other side of the same coin where it extends what we do internally out to the borders. If it improves economic efficiency, National Grid doesn't see that as a bad thing. Mr. Ott said PJM had a debate on that issue. In other words, should PJM and MISO put in their dispatch algorithms some form of maximizing interchange. In 2005-2006, the answer came back to not go that far. Go as far to do as much as you can to rationalize prices at the borders. The key point is that PJM has been developing interchange protocols with its neighbors for some time and that was the collective approach of the PJM community at that time. That was a few years ago, but it doesn't mean it can't change. Things change all the time.

PJM has had less development with NY over the years, but one concept PJM discussed was about the non-market neighboring areas. One concept discussed was if we had a non-market entity area bordering a market area, if you started to optimize interchanges, the non-market would become a gatekeeper and could reap extensive commercial value because it would control the flow into the "big market." There was a fair amount of discussion of the transaction scheduling through the NERC process, they can't dominate it due to Open Access, but from a dispatch perspective, the operator would have to take over and in those areas there are no independent operators.

Mr. Glen McCartney (Constellation) asked about software differences PJM has encountered with MISO. Mr. Ott said PJM had similar software vendors with MISO. That helped, but it wasn't necessary. When you do an EMS modeling update, they should reflect the other's constraints in the dispatch. The key to success is accurately modeling the physics of the system. So far the answer is yes on all of the borders.

Mr. Mike Kramek (Edison Mission) asked if participation has increased by removing costs to interregional transaction. Mr. Ott said when PJM implemented interregional congestion management and did some changes to transaction scheduling protocols; PJM did see an increase of activity across the border, and also improved price convergence.

PJM has followed NYISO and ISO-NE stakeholder discussions on Inter-regional Interchange Scheduling (IRIS). The two options are: Tie Optimization and Coordinated Transaction Scheduling. Mr. Ott said he wanted to share PJM's opinion and also express the opinions of PJM's stakeholders.

<u>Tie Optimization (TO)</u>
Mr. Ott noted that the TO option could work for NYISO and ISO-NE; however it is not a feasible option for PJM. It does not appear to be extendable to multi-regions or operationally applicable to complex transmission interfaces. TO appears to require elimination of participant transactions in real-time market. It would be difficult to tell people in the south that they can do real time transactions, but to the north and west, they could not. From PJM's perspective, the TO option would also substantially increase audit and compliance complexity. Stakeholders have also expressed a fear that TO would create a barrier from doing interregional transactions. They fear that the RTO would disrupt their ability to do transactions, especially in PJM.

<u>Coordinated Transaction Scheduling (CTS)</u>
PJM sees a lot of value in the CTS option. The CTS could reduce scheduling barriers through coordination of scheduling protocols, incent market participants to increase efficiency of interregional transactions and it has the potential to be implemented on neighboring entities where

organized electricity markets are established, without excluding non-market area participation. PJM will work with their stakeholders to evaluate implementation of Coordinated Transaction Scheduling option.

Mr. Bleiweis said in the NYISO-ISO-NE discussions, some MPs say that TO will extend what the control area does for internal interfaces across the seam. Other MPs say TO changes the roles of the NYISO from a market administer into a MP. Mr. Bleiweis asked Mr. Ott to comment on this. Mr. Ott said if the two control areas are merged, then there is only one system. If you stop short of that, someone has to set that schedule, the only one constant is that they won't be right. The question is who bears that risk. Is it collectively the participants, or the RTO on their behalf? If it's the RTO on behalf of participants, then they don't have a choice. If the control areas are merged, then there is no longer a border.

Mr. Frank Francis (Brookfield Power) thanked Mr. Ott for presenting PJM's perspective. He agreed that CTS can be further improved. Regarding the April 20 MRC, Mr. Francis' understanding from Mr. Ott's presentation, is that MISO is considering CTS as well. Mr. Ott said his counterpart at MISO has had discussions about this, but it goes by a different term. It is the equivalent of CTS. The biggest barrier to trade between PJM and MISO are implicit transaction fees. As RTOs, we want to get participants involved into the system quickly. MISO and PJM need to have discussions on what do we do about the Day Ahead Markets. Mr. Francis asked what is MISO's position on TO. Mr. Ott said MISO had the same position on TO as PJM because MISO has a border similar to PJM.

Mr. Paul Gioia (NYTOs) said PJM seems to be focusing on the risks of TO and asked if PJM disagrees with the efficiency benefits. Mr. Ott said with a single border, TO is absolutely beneficial. If you are looking for ultimate efficiency, CTS takes the next step. Mr. Gioia asked if PJM would be indifferent if NYISO-ISO-NE adopt TO. Mr. Ott said as long PJM does not have to adopt it as well.

Mr. Franey asked if a study was performed to evaluate the economic benefits for PJM consumers. Mr. Ott said PJM has not done a benefit study due to the nature of the size of PJM. PJM is a net exporter. If PJM optimizes and exports more, would load benefit, the likely answer is no. From interregional perspective, it's competition.

Mr. Clarke said one of the discussions that NYISO is having with ISO-NE is removing certain ancillary service charges. In PJM if you have a real time scheduling change for a transaction, that creates a liability for operating reserves. Also, if generators are scheduled by PJM, PJM exempts generators from operating reserve deviation charges. It would be useful to explore how you would exempt transactions to the extent that the NYISO scheduled them from the operating reserve charge. Mr. Ott said an area to explore for PJM is the ways transaction improve the supply/demand balance and the implicit costs.

Mr. Miller asked about PJM's implementation goals for CTS. Mr. Ott said MISO has a corporate goal for their equivalent by the end of the year. PJM doesn't think it can have it done, vetted by its stakeholders and FERC that quickly. It may take next year to have an agreement. With New York, PJM's observation is to have the protocol in the timeframe. It all depends upon PJM stakeholders.

Mr. Tom Paynter (NYS Department of Public Service) asked if merging the real time dispatch brought benefits to PJM's footprint. Mr. Ott said there were enormous benefits. Transmission utilization went up by 40%. However, maintaining two separate control areas is a lot different than when you internalize the constraints. It's a big difference.

8. IRIS Update

Mr. Robb Pike (NYISO) reviewed the presentation included with the meeting material. NYISO and ISO-New England 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. The ISOs will vote on IRIS at the June 1 joint BIC and NEPOOL Markets Committee meeting, which will be held at the Desmond Hotel in Albany, NY. Both ISOs need to choose the same option. Tariff language will return to the BIC and MC before the end of the year for approval before filing. The NYISO anticipates that the choice the ISOs select will be implemented in 2013.

Mr. Pike stated that the voting threshold will be 58% in the NYISO. ISO-New England has a 60% threshold. Mr. Paynter asked what the procedure is for the vote. Mr. Pike said same process as we use in elections, paper ballots, and via email for those teleconferencing.

Mr. Bleiweis expressed a concern of bias for the vote. Mr. Franey said the intent is to give every option a fair chance without any bias by having a simultaneous straw vote, with a clear winner under the main motion.

Mr. Miller said Con Edison supports the concept of having a straw vote to determine the ranking of the main motion. Con Edison's concern is that the goal should be to have something passed on June 1, and that it doesn't become prescriptive.

Mr. Jim D'Andrea (TC Ravenswood) said he was not sure what a "clear winner" meant.
Ms. Saia asked would it hurt if we did not report the outcome of the straw votes. Mr. Franey said that is an option. Mr. Liam Baker (US Power Gen) asked wouldn't a secret ballot make all of these issues go away. Mr. Franey said that's what he thought Ms. Saia was suggesting. Ms. Lampi said the reason why we are having the straw vote is because the clear winner will move on to become the main motion. Mr. Mukerji said if there are different outcomes for each ISO at the June 1st BIC that will have to be solved at a future meeting.

Mr. Paynter asked if the NYISO's Board would be bound by the June 1 BIC vote. Mr. Franey said it is advisory only.

9. 2010 State of the Market

Pallas Lee Van Schaick (Potomac Economics) reviewed the presentation included with the meeting material.

Mr. Younger asked if Mr. Lee Van Schaick was only reporting the NYISO's analysis for the Demand Curve. Mr. Lee Van Schaick said that was correct. Potomac hasn't done the analysis yet. Mr. Younger asked if analysis is done using historic pricing data or expected pricing data once a new GT enters the market. Mr. Lee Van Schaick said historic data. Mr. Lee Van Schaick said his understanding is that Mr. Younger would like Potomac – in their future demand curve reset processes – to account for this issue in some way in the regression analysis, and it's more significant that the more efficient resource is selected.

Mr. Clarke said he didn't agree with the collective argument of the generator/supplier concern illustrates the degree of the hypothetical of the demand curve reset process. This process is becoming unwieldy and out of touch with reality. We need to get back to simplicity. FERC has already said we should examine combined cycle technology and compare to combustion turbine units.

Mr. Paynter said part of the problem in looking at this static equilibrium analysis, you have to use caution because of technological change. Assuming that they all reach equilibrium, the real world reality is that these plants have 40 year life spans and there is technological progress. New plants are typically more efficient and cleaner than the old plants. Historically, the new plants have better heat rates, and they displace the old units. These new plants become base units, and these old units become peaking units. You wind up with a lot of old plants sitting around, and the question is do you retire them. That may not be the case in NYC because of its constraints, but it is common upstate. You have to take a longer term view of this and it will impact the value of capacity.

Mr. Paynter said that Mr. Lee Van Schaick noted that Poletti had an impact on NYC prices when it retired. He asked if Poletti retired because revenues were low to keep going. Mr. Lee Van Schaick said no. Mr. Paynter said, so in short, we can agree that plants in NY are shut down not just because of economics, but environmental reasons. Mr. Paynter also said that CONE has an impact on the market because of environmental reasons and that we all should not assume that entry/exit of the NYC market is not driven by reliability or ICAP concerns. Mr. Miller said he wanted to follow up on that and said we shouldn't take the view that government will only intervene to add capacity to the market.

Mr. Kevin Lang asked for the comparison of the virtual market bidders vs. real time market bidders. Mr. Lee Van Schaick said the difference is in the dozens, not hundreds. Mr. Lang asked what are the benefits of virtual trading when profits are only $20 million a year and why is it good to invest in virtual trading compared to the other markets. Mr. Lee Van Schaick said virtual market helps balance the other two markets and virtual traders helped converge day-ahead prices with real-time prices. Virtual trading makes entities less likely to use peaking units and as a result - more expensive fuel. The current rules provide for taking care of price divergences at the zone level. We have over the last decade; have identified issues in NYC and Long Island where the pattern of congestion is different for each market. The benefits would be seen in the future are at the node level, not the zonal level. Mr. Lang asked if Potomac Economics has studied the virtual trading market. Mr. Lee Van Schaick said Potomac hasn't performed an analysis. Mr. Lang said it would be very interesting to know what the value is of virtual trading compared to the rest of the markets. It would be helpful to quantify that for those of us who are paying for this market.

Mr. Yannick Vennes (HQ US) asked where do the external interfaces fit in with virtual trading activity. Mr. Lee Van Schaick said those interfaces are not included in this figure. But there is a fair amount of activity at the interfaces that look like virtual transactions. They are not called virtual transactions, but if someone schedules an import in day ahead, but un-schedules it in real time, then that is effectively the same as virtual supply.

Mr. Younger said wouldn't it be better to revise the NYISO day ahead model, rather than 1 hour, to look at 30 minute or 15 minute intervals so that we get less unit schedule changes at the top of the hour to begin with. Mr. Lee Van Schaick said that is something Potomac hasn't studied.

Mr. Bob Boyle (NYPA) asked if adding those quarter hour intervals that Mr. Younger mentioned would require a major software change. Mr. Pike said what the NYISO is contemplating in its investigation is rather than adding new points (six, seven or eight points time points) in the real time dispatch, is to add more granularity in the first couple dispatch points and maybe not look out the full 60 minutes and horizon. We would re-sequence how we analyze those time spans and would require less work.

10. Other Business

Mr. Franey clarified that the June 1 meeting will be a Joint NE-POOL and NYISO meeting to vote on the IRIS concept approval. The next regularly scheduled BIC will be held on June 15.

Meeting adjourned at 3:30 p.m.