June 16, 2004

Northeast Independent Market Operators Coordinating Council

May 2004 Status Update Report

The Northeast Independent Market Operators Coordinating Committee (NIMOCC) was established pursuant to the “System Operation, Planning and Market Development Agreement” dated June 11, 2002 between the IMO, ISO New England and New York ISO. The objective of the committee is to develop recommendations on complementary market design, business practices, system planning protocols, and to further other coordination activities identified in the agreement that, if adopted by the parties, will reduce barriers to electricity trading in the region and improve reliability. The Coordinating Committee has held meetings over the last two years and has advanced many of the issues set out in the agreement. The second annual status report setting out joint recommendations and milestones in regards to these issues is attached.
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MAY 2004 STATUS UPDATE AND RECOMMENDATIONS FOR NEXT STEPS

AS REQUIRED BY THE

NORTHEAST INDEPENDENT MARKET OPERATORS SYSTEM OPERATION, PLANNING AND MARKET DEVELOPMENT AGREEMENT

BACKGROUND


The Agreement called for the Coordinating Committee to present a set of joint recommendations and milestones for furthering these efforts to the Board of Directors of each party on or before May 15, 2003. This status report was completed and presented to the Board of Directors of each party. The agreement also calls for the Coordinating Committee to present a set of joint recommendations and milestones for furthering the medium and long-term initiatives to the Board of Directors of each party on or before March 15, 2004 and July 15, 2004 respectively. The parties agreed to combine these two reports into a single report to be completed on or before May 15, 2004.

This document represents the second status report of the Coordinating Committee. The first section of this report is an Executive Summary, which highlights the accomplishments already achieved as well as the major activities underway under the auspices of the Coordinating Committee. The second section of this report provides a status update and reports on the next steps for each of the ongoing, short-term, medium-term and long-term initiatives. The parties have agreed that a status report setting out joint recommendations and milestones for furthering these efforts will be prepared annually going forward.
SECTION I

EXECUTIVE SUMMARY
NORTHEAST INDEPENDENT MARKET OPERATORS AGREEMENT

MAY 2004 STATUS REPORT

EXECUTIVE SUMMARY

BACKGROUND


This Executive Summary highlights the accomplishments achieved as well as the significant next steps planned under the auspices of the Coordinating Committee. For convenience, cross-references to the Issues identified in the subject Agreement are provided.

ACCOMPLISHMENTS - May 2004

• The Agreement was amended to reflect a change in focus away from the creation of the Northeast RTO to one of general coordination and signed by all parties.

• A White Paper describing the Virtual Regional Dispatch proposal was issued to NYISO and ISO-NE Market Participants on May 19, 2003 and was brought to the attention of IMO Market Participants at its June 11, 2003 Market Advisory Council meeting. (Item A - Issue #2.1.a)

• NYISO and IMO implemented an interim procedure to resolve cross-border transaction scheduling issues on June 26, 2003. Work on this issue continues. (Item A - Issue #2.1.a)

• NYISO and IMO have jointly engaged LECG to study each party’s respective intertie issues. (Item A - Issue #2.1a)
NYISO and ISO-NE have been running facilitated checkout in a test mode. (Item C - Issues #2.1 and 4.4)

The Electronic Scheduling collaborative (ESC) finished a comprehensive effort to define use cases and functional requirements. (Item C - Issues #2.1 and 4.4)

NPCC received FERC approval to allow redispach of suppliers across regions to alleviate potential curtailment of transactions due to Transmission Loading Relief (TLR) requests whenever a control area is in an energy short situation. (Item D – Issue 2.2 a)

NYISO, ISO-NE and PJM have achieved an agreement on the protocol for coordination of planning that requires formalization after input from stakeholders is received. (Item G - Issues #2.5 and 4.2)

NYISO and ISO-NE implemented similar scarcity pricing protocols in their respective markets on July 29, 2003. (Item I - Issue #3.1.a)

NEXT STEPS

NYISO and the IMO continue working to resolve cross-border transaction scheduling issues. (Item A - Issue #2.1.a)

NYISO and ISO-NE are working toward development of a Virtual Regional Dispatch mechanism that could be implemented during Q2 2005. The IMO will monitor progress with a view to more direct involvement. (Item A - Issue #2.1.a)

Necessary tariff changes to allow sharing of confidential data among Market Monitors will continue to be pursued. (Item B - Issues #2.1.b & 3.5.a)

Deployment and on line operation of Facilitated Checkout between NYISO and ISO-NE is scheduled to begin in May 2004. The IMO will evaluate the implementation of FCO capability during 2004. (Item C - Issues #2.1.c & 4.4)

NYISO is developing improvements to their transaction scheduling tools to ensure that NERC e-Tags are updated to reflect actual schedules. (Item C - Issues #2.1.c & 4.4)

The IMO plans to join the NPCC reserve sharing and diversity interchange programs and the NPCC CO-1 Working Group is pursuing expansion of the ACE Diversity Interchange regulation sharing process. All technical aspects are scheduled to be completed by November 2004. (Item E - Issues #2.3.a & 2.7.a & b)

• NYISO, ISO-NE and the IMO will sponsor exploratory dialogue on inter-control area ramp management at the NPCC Task Force to Coordinate Operations (TFCO).  (Item L – Issue 3.1 e)

• The IMO is developing a Day Ahead Market that is largely compatible with the design in neighboring jurisdiction with expected implementation in Q4 2005.  (Item M – Issue 3.2)

• Development amongst NYISO, ISO-NE and PJM of the central resource capacity market design is on schedule.  Review of the design has been completed by NERA.  The three regions are reviewing the design within their individual stakeholder processes.  (Item O - Issues #3.4.a & b)

• Discussions are underway regarding the elimination of export charges in the Northeast in 2004. ISO-NE is scheduled to make a compliance filing regarding the RTO-NE proposal in June 2004 which will include a plan for the elimination of export fees between New York and New England by December.  (Item P - Issue #4.1)
SECTION II

STATUS REPORT BY ISSUE
A. COORDINATE SCHEDULES - CONFIRMATION

ISSUE 2.1: Coordinate Transaction Procedures

a. Complete and put into effect the coordination process by which schedules for cross-boundary transactions by the parties are confirmed;

STATUS UPDATE

NYISO and the IMO developed a protocol in mid-2002 to manage real-time transaction scheduling between them. A revision to this protocol was implemented on June 26, 2003. This has improved the scheduling of cross-border transactions, but not eliminated the problem of transactions failing checkout. A consultant familiar with the rules and procedures of both markets has been engaged jointly by NYISO and IMO to examine this issue and propose potential solutions. A third party can provide a more complete examination of this issue since some of the required market data is not sharable (with another ISO) under current code of conduct rules in New York. This evaluation should be complete by summer 2004.

NYISO and ISO-NE developed and implemented a Beta version of a web based automated checkout tool in Winter 2003/2004. This application will allow Operators from both ISOs to use an electronic tool to compare next hour schedules in near real-time with a focus on discrepancies between the two systems. This process should streamline the current manual Operator-to-Operator process used in checkout.

NYISO and ISO-NE issued a white paper on Virtual Regional Dispatch (VRD) on May 19, 2003. This proposal was discussed with market participants of ISO-NE and NYISO at several joint meetings held in 2003, and is available on the NYISO and ISO-NE web sites under the title “Virtual Regional Dispatch Straw Proposal.” In October of 2003, ISO-NE filed with FERC for RTO status and this filing presented VRD as a potential seams solution.

NEXT STEPS

The IMO and NYISO will review the results of their joint study on transaction scheduling and implement new, or adjust existing, procedures and protocols as warranted to improve the scheduling of transactions between them.

VRD may allow separate ISOs to avoid the scheduling dilemmas that result from separate commitment processes, preserve the opportunity for buyers and sellers to engage in individual financial transactions between regions and more efficiently dispatch power between regions based on competitive bid data. The IMO, while not an active participant with NYISO and ISO-NE in Virtual Regional Dispatch, will continue to monitor the progress with a view to more direct involvement as this process evolves into a viable long-term solution. NYISO and ISO-NE are working toward development of a Virtual
Regional Dispatch mechanism that could be implemented during Q2 2005. It is anticipated that a limited pilot program will be conducted in Q4 of 2004.

Both NYISO and ISO-NE are targeting the Spring of 2004 for full implementation of the automated checkout tool. It is then the intent of the two ISOs to expand the use of the tool to include the remaining control areas within NPCC and possibly PJM and MISO.
B. INFORMATION SHARING – FAILED TRANSACTIONS AND
MARKET MONITORING UNITS

ISSUE 2.1: Coordinate Transaction Procedures

b. Develop information sharing protocols for monitoring “failed” cross-
boundary transactions;

and

ISSUE 3.5: Market Monitoring Functions

a. Enhance consultation and collaboration between the market monitoring
unites of each party and between the independent market advisors of each party.

and

ISSUE 4.3: Institute Shared Market Monitoring Activity

Utilize a common set of rules and sanctions for each party’s market
monitor function (even if different jurisdictions enforce sanctions)

STATUS UPDATE

All three ISOs, but particularly the IMO, have identified the need to share confidential
information on market participant bidding practices to ensure effective market
monitoring. While the Ontario Market Rules allow the IMO to share this information,
confidentiality provisions prevent ISO-NE and NYISO from reciprocating. This issue
has been raised with FERC’s Office of Market Oversight and Investigations (OMOI) with
a view to obtaining a tariff change to authorize such sharing of information. NYISO staff
intends to pursue the status of this request with OMOI.

NEXT STEPS

If it seems unlikely that FERC will act on the request for a tariff change, the IMO and
NYISO will give consideration to entering into a bilateral agreement on the exchange of
information between the market monitoring groups. Such an agreement would include a
provision allowing a signatory to refuse to provide information that would be in violation
of its laws or rules relating to confidentiality. Even so, the putting in place of such an
information exchange agreement would provide a focus for greater collaboration and may
act as a catalyst to address the block on sharing confidential information. This would
also provide an added deterrent to potential gaming activity.
C.  COORDINATE SCHEDULES – ONE STOP SHOPPING

ISSUE 2.1: Coordinate Transaction Procedures

c. Consider the progress of on-going efforts at developing “one-stop shopping” scheduling mechanisms and augment those efforts as necessary to ensure the objective is met.

and

ISSUE 4.4: Shared Transaction Scheduling

Expand scheduling technology to ensure customers wishing to transmit energy anywhere between, through or out of the multiple systems can avail themselves of “one-stop-shopping” for all necessary arrangements.

STATUS UPDATE

Under the title of “OSS” (“Open Scheduling System”) an inter-ISO communication technology has been developed and tested between New York, PJM, and ISO-NE that supports the implementation of applications necessary for a “one stop shop” approach to regional transaction scheduling. While a one stop shop project is not yet active amongst the ISO’s, the technology has been applied to addressing the need for a mechanism to improve the efficiency of and reduce errors in the hourly real-time scheduling of transactions between markets. Titled “Facilitated Checkout” (FCO), this NPCC coordinated project will be put into operation initially between New York and New England with the IMO joining soon after. Implementation is nearing completion and testing is well under way.

In 2003, the Electronic Scheduling Collaborative (ESC) finished a comprehensive effort to define use cases and functional requirements in support of electronic scheduling tools designed to accommodate both the existing physical markets and developing SMD financial markets in the OASIS II framework. The ESC had considered the principles behind the OSS functionality in their effort. The ESC acknowledged that both the principles behind the OSS concept and the technical infrastructure built to support those principles are in line with the ESC and several other industry initiatives in support of the development of OASIS II. The North American Electric Standards Board (NAESB) has assumed the leadership role in the development of OASIS II.

NYISO is also developing improvements to their transaction scheduling tools that will ensure that NERC e-Tags (required by NERC for all inter-ISO transactions) are correctly updated to reflect actual NYISO schedules. NYISO’s process and procedures are being developed to be compatible with NERC e-Tag procedures used in PJM. The IMO implemented a process to update NERC e-Tags in cases where participants fail to update them based on actual schedules in the fall of 2003.
NEXT STEPS

Deployment and on-line operation of FCO is scheduled to begin between New York and New England in May of 2004. The IMO is expected to implement FCO in summer 2004. Further progress toward a “one stop shop” will follow a successful FCO implementation by the NPCC ISOs and an evaluation of the continuing need for and desirable schedule to develop a single entry capability for regional energy transactions.
D. TRANSFER CAPABILITIES

ISSUE 2.2: Calculate, Coordinate and Publish Transfer Capabilities

b. Continue coordination with the NPCC/NERC initiatives to address Lake Erie loop flows. It shall also review, and adjust as necessary, established parallel path flow arrangements before the Ontario-Michigan PARs enter service.

STATUS UPDATE

NPCC has received approval from FERC for a procedure which allows for the redispatch of suppliers across the regions to alleviate the potential curtailment of transactions due to TLR requests whenever a control area is in an energy short situation.

Completion of the Ontario-Michigan PARs project is scheduled for September 30, 2004. DOE has issued International Transmission Company’s (ITC) Presidential Permit containing the operating principle that flow should equal the scheduled transactions between Ontario and Michigan.

NEXT STEPS

Expansion of the NPCC procedure to include the development of operating procedures and billing and settlement procedures to account for the redispatch has been placed on hold pending the development of the new PJM and MISO congestion management process.

The IMO is continuing to work to achieve an interconnection agreement that will result in the phase shifters being operated to schedule. Meetings have taken place between the IMO and MISO to develop a joint operating agreement, which is expected to be completed prior to MISO market opening on December 1, 2004. The IMO will continue to use existing inter-connection agreements until a MISO agreement is in place.
E. OPERATING RESERVE, ACE AND RESERVE SHARING - NPCC

ISSUE 2.3: Operating Reserves

a. Develop arrangements for sharing operating reserves between their Control Areas, building on the analysis being performed by the NPCC Task Force on Coordination of Operations.

and

ISSUE 2.7: Continue NPCC Operations Initiatives

a. Consider the progress of the on-going ACE Diversity Interchange Pilot Project and augment those efforts as necessary to ensure the objective is met.

b. Consider the progress of the on-going 100 MW Reserve Sharing Pilot Program and augment those efforts as necessary to ensure the objective is met.

STATUS UPDATE

Area Control Error (ACE) Diversity Interchange is a Northeast Power Coordinating Council (NPCC) initiative which takes advantage of the diversity among its control areas to reduce the burden on regulating units and is intended to enhance regulation performance. The initial implementation of this exchange arrangement was between the NYISO and ISO-NE during the summer of 2002. New Brunswick Power was activated real time in November 2003.

The NPCC CO-1 Working Group continues to monitor and assess the merits of the ACE Diversity Interchange (ADI) Pilot that currently involves New England, New Brunswick and New York. The IMO recognizes the value of reducing the cycling of units that are on Automatic Generation Control (AGC) and of reducing inadvertent flows and has agreed to join. However, the IMO’s ability to address the mechanisms needed to participate in the pilot has been limited due to other higher priority work.

The 100 MW reserve sharing has been designed and reviewed by NPCC group CO-1, reviewed and approved by NPCC group CO-8, and is now ready for review and approval by NPCC Task Force on Coordination of Operation (TFCO).

NEXT STEPS

NPCC CO-1 Working Group is pursuing expansion of the ADI regulation sharing process with the IMO and possibly, PJM. The IMO has initiated internal discussions to set out IMO involvement.

All technical aspects are scheduled to be done by November 2004. Other reserve sharing efforts are on hold until the 100 MW reserve sharing pilot project proves to be successful.
F. MAINTENANCE OUTAGES

ISSUE 3.1: Enhancements to Existing Market Features

d. Expand the coordinated notification of maintenance outages of generation and transmission lines that impact cross-boundary flows in order to secure market sufficiency in addition to securing reliability sufficiency.

STATUS UPDATE

There has been no activity to date on this issue.

NEXT STEPS

The ISOs intend to coordinate inter-regional scheduling limits for transmission and generating unit maintenance outages to improve market sufficiency and transparency. These maintenance scheduling limits may be considered in the longer term Transmission Congestion Contracts (TCC) and Installed Capacity (ICAP) marketplaces.
G. SYSTEM PLANNING

ISSUE 2.5: Planning Cooperation

a. Conduct joint system impact studies and facilities studies for those projects that have inter-control area effects;

b. Build upon the NPCC Task Force on Coordination of Planning’s regional planning processes (e.g., resource adequacy reviews, area transmission reviews) to expand the list of uniform planning assumptions;

c. Seek to ensure that beneficial transmission projects are considered appropriately from the broader regional perspective, including, but not limited to, relieving “bottled generation” restrictions and prioritizing transmission constraints in need of resolution.

d. Consider issuing joint, region-wide, planning assessments.

and

ISSUE 4.2: Coordinate System Planning

Coordinate system planning and identify opportunities for further integration of system planning by NYISO, ISO-NE and participating Canadian entities.

STATUS UPDATE

Coordinated planning currently exists in the Northeast by virtue of informal information sharing among the ISOs and control areas, participation in NERC and NPCC planning processes and analysis of interconnections between control areas. In January 2003 a Liaison Task Force was formed including all NPCC members as well as PJM and a scope of work was agreed upon which will result in substantial improvements in coordination of planning activities in the region. The initial scope of work includes better coordination of information sharing by harmonizing the timing, databases and modeling assumptions used in planning analyses, the establishment of standard confidentiality agreements, and building upon joint planning activities already underway under the NPCC Task Force on Coordination of Planning (TFCP). In December 2003, agreement was achieved among the participants on a protocol for coordination of planning in the Northeast region.

Northeastern ISO/RTO Planning Coordination Protocol

The proposed Northeastern protocol addresses the following key elements:

- Establishment of a Joint ISO/RTO Planning Committee Establishment of an Inter-area Stakeholder Advisory Committee to ensure stakeholder input
• Procedures for data and information exchange
• Procedures for development of a Northeastern Coordinated System Plan
• Provisions for coordination of interconnection requests and firm transmission service requests which are likely to have cross-border impacts
• Place holder for cross-border cost-allocation issues: will need to be addressed with stakeholders in each region

During the first quarter of 2004, PJM, ISO-NE and the NYISO presented the proposed protocol to their stakeholders for input. The reaction of the stakeholders has been supportive of these efforts.

NEXT STEPS

PJM, NYISO and ISO-NE will consider stakeholder input and anticipate finalizing the protocol by Summer 2004. It is expected that the initial participants will be PJM, ISO-NE and the NYISO. The IMO and other Canadian entities may choose to participate on a limited basis at the outset.

The goal for this year is to implement the data and information exchange agreement, develop interconnection coordination procedures and issue a Coordinated System Plan which builds upon the NPCC Annual Review process and will include joint assessments of projects with multiple control area impacts. The initial focus is on issuing the first Coordinated System Plan in the Q3 2004 which will cover the New York and New England region.

Longer-term potential goals (2005-2006) include the development of the Northeast Coordinated System Plan for the broader Northeast US/Canadian region which will accommodate local state and provincial input from across the region as well as cross-border jurisdictional concerns.
H. CONGESTION MANAGEMENT AND CROSS BORDER DISPATCH

ISSUE 2.6: Congestion Management

a. Investigate the success of NYISO’s Congestion Management Pilot with PJM and report on its usefulness as a congestion management tool for the NYISO/IMO Interface.

and

ISSUE 5.2: Cross Border Dispatch

Develop a market-based process for solving cross-border dispatch and parallel flow issues.

STATUS UPDATE

In June 2002 the NYISO and PJM instituted a pilot program under which each ISO would institute redispatch measures at the request of the other when a system emergency condition exists. The program, which has been implemented several times during the past year, addresses certain targeted system contingency conditions in the Western part of the PJM/NYISO systems. The pilot was successfully invoked for five events affecting 30 hours of operation in the fall of 2002 to address PJM reliability concerns. The future need for the pilot has been eliminated due to transmission system reinforcements in the Western part of the PJM region.

NEXT STEPS

The results of the NYISO PJM pilot are available for future reference if a similar need should develop and the pilot project is now closed. The Coordinating Committee will monitor and evaluate the progress of the PJM MISO Congestion Management Proposal and the Virtual Regional Dispatch (see Item A. COORDINATE SCHEDULES – CONFIRMATION) concept to address future inter-market congestion management applications.
I. MARKET ENHANCEMENTS/EVOLUTION - GENERAL

ISSUE 3.1: Enhancements to Existing Market Features

The Coordinating Committee shall consider mutually beneficial enhancements to:

   a. Establish market-based mechanisms that encourage market participation by a broad range of generation and demand response resources and promote the dispatch flexibility of such resources;

STATUS UPDATES

ISO-NE implemented SMD 1.0 markets, which include day-ahead and real-time markets and an LMP pricing system, on March 1, 2003.

ISO-NE implemented its Forward Reserve Market for off-line reserve requirements in November of 2003. The market acquires off-line reserve needs on a seasonal basis.

During Fall 2003 and Spring 2004 several of the recommendations of the New England Demand Response Initiative (NEDRI) were implemented by ISO-NE. Events to increase customer and Enrolling Participant awareness of ISO-NE’s enhanced demand response programs were held throughout the region. ISO-NE continues to present these educational programs in 2004. A Demand Response Working Group (DRWG) consisting of a variety of demand response stakeholders meets once every month to address program participation, design, and implementation issues.

ISO-NE has implemented several program improvements effective summer 2004. These changes include annual ISO-NE initiated audits for ICAP resources, reducing the initial number of days required for a customer base-line and partial reimbursement of communication hardware costs incurred by smaller customers.

ISO-NE is developing a Day Ahead Load Response Program (DALRP). The program is designed to meet requirements of FERC. The ISO-NE has sought review of the design from its DRWG and Markets Committee.

ISO-NE is also in the process of designing a new reserve market. The new reserve market will include the participation of Demand Response resources. Demand Response will be able to participate in real time market for reserves. The objective of including Demand Response in the Energy and Reserve markets is to integrate the participation of Demand Response resources in the overall system dispatch.

The NYISO has filed with FERC for expansion of its Day-Ahead Demand response program and for Emergency Demand Response and Special Case Resources to be eligible to set price when called for.
ISO-NE and NYISO implemented similar scarcity pricing initiatives prior to Summer 2003. These initiatives assure that the market price appropriately reflects the supply/demand balance in times of high demand.

The IMO continues to move forward with its Market Evolution Program (MEP). The MEP consists of a group of identified enhancements that include: implementation of a day ahead market; incorporation of multi-interval optimization; various specific short term and long term initiatives to address resource adequacy; environmental information tracking (on hold pending government regulation), and wholesale/retail market integration. The IMO and its stakeholders continue to develop the design of a Day-Ahead Market and address pricing issues in the real time market. Multi-interval optimization (MIO) is moving forward and an initial phase that recognizes the initial slow loading of some generators was implemented in March 2004 with full implementation expected in Summer 2004. The IMO is also developing a Transitional Demand Response Program whose objective is to enable demand response by providing temporary payments for load reductions that will help eliminate systemic barriers to demand response.

**NEXT STEPS**

ISO-NE’s Day-Ahead Load Response Program will be implemented in Spring 2005. The implementation of demand response participation in the Energy and Reserve markets will be based on the target implementation dates for the broader market design.

The NYISO is in the process of implementing a complete replacement for its Hour-Ahead and Real-Time markets, including many enhanced features. The NY SMD 2.0 builds upon the ISO-NE SMD 1.0 and incorporates a number of best practice improvements from the New York markets. The Real Time Scheduling (RTS) time frame will extend from 5 minutes to 2-1/2 hours in the future. While commitment and decommitment decisions will be made every 15 minutes by the real-time commitment (RTC) process, decisions to adjust the output of internal energy suppliers are made every 5 minutes by the real-time dispatch (RTD) process, as is the calculation of energy and ancillary services prices. The SMD2.0/RTS is scheduled for implementation by the Fall of 2004.

The New York ISO, ISO-NE and the IMO will individually report within their respective participant/stakeholder forums on the activities being advocated/monitored/coordinated under the NIMOCC agreement.

The IMO is assessing the implications of recent government policy announcements that would see the creation of an Ontario Power Authority tasked with ensuring resource adequacy in Ontario. The announcement also indicated that the government would set aggressive targets for the installation of residential ‘smart meters’, implement time of use rates, and seek conservation in the amount of 5% of demand by 2007 (including a 10% reduction in demand by government buildings and loads), plus 1350MW of renewable generation by 2007 and 2700MW by 2010. The Day Ahead Market design, based on
uniform pricing that is the same as exists in the real time markets, is scheduled for presentation to the IMO Board in July 2004.
J. COMMITMENT ANOMALIES – ENERGY LIMITED RESOURCES

ISSUE 3.1: Enhancements to Existing Market Features

b. Solve commitment anomalies for energy limited resources;

STATUS UPDATES

Under SMD 1.0, ISO-NE provides for energy limited resources (ELRs) to indicate energy capacity that is available to be scheduled throughout the day.

NEXT STEPS

The NYISO’s initial SMD 2.0 deployment, now scheduled for Fall 2004, will continue to treat ELR resources as under the current system. The new software is positioned to allow enhancements, such as the ability to specify daily energy capability, as market participants may require in the future.

It is expected that the outcome of the NY Renewable Portfolio Standard proceeding (on track for late 2004) will better define opportunities for enhancing ELR modeling and scheduling.

The IMO’s current modeling and scheduling of ELRs are planned to be enhanced with the implementation of the Day Ahead Market which is now under development.
K. TRANSMISSION CONGESTION CONTRACTS/FIRM
TRANSMISSION RIGHTS ALIGNMENT

ISSUE 3.1: Enhancements to Existing Market Features

c. Promote greater alignment between the IMO’s Financial Transmission Rights and NE/NY’s Transmission Congestion Contracts; and

STATUS UPDATES

There has been no activity to date on this issue.

NEXT STEPS

The NYISO, ISO-NE, and the IMO will consider the evaluation of congestion hedging instruments for inter-control area market interfaces as part of the Virtual Regional Dispatch effort and as part of the Day Ahead Market design. (See Item “A. COORDINATE SCHEDULES – CONFIRMATION, Issue 2.1 a Above)

The ISOs will also evaluate the results of the recently implemented internal flowgate options in the PJM market.
L. RAMP MANAGEMENT COORDINATION

ISSUE 3.1: Enhancements to Existing Market Features

e. Develop Inter-Control Area Ramp Management techniques to facilitate cross-boundary trading and reduce transaction curtailments.

STATUS UPDATES

There has been no activity to date on this issue.

NEXT STEPS

The NYISO plans to implement the ability to incorporate individual Control Area ramp limits in its SMD 2.0 system scheduled for deployment in the Fall of 2004. When this feature is successfully deployed by the NYISO this issue will be closed.

The NYISO, ISO-NE, and the IMO will sponsor an exploratory dialog on inter-control area ramp management at NPCC TFCO.
M. DAY AHEAD MARKET

ISSUE 3.2: Day-Ahead Market

The Coordinating Committee shall consider mutually beneficial market enhancements to:

   a. Form a single Day-Ahead Market or compatible Day-Ahead Markets that will increase efficiency of the Day-Ahead Markets for the New York, New England and Ontario jurisdictions and enable market participants to engage in seamless Day-Ahead transactions between these jurisdictions and their neighboring markets.

STATUS UPDATE

The Coordinating Committee appointed a Working Group to investigate the options for a Day-Ahead Market for the Northeast. The Working Group conducted a review of the Regional DAM Study conducted in 2001 by LECG and KEMA Consulting. This review confirmed the recommendations of that study that a single DAM with separate RT markets is likely to create gaming and possibly reliability problems and that the use of a hierarchical model is impractical at this time. It was agreed that in the short-term sequential DAMs with cascading communications is the best option absent development of a single DAM for the region. In the longer term a “pipeline” approach to a single DAM may have some advantages—but would require further study. The WG also expressed concern over the uncertainty of the benefits versus the cost of implementing interim temporary measures.

The IMO is developing a DAM design based upon a Security Constrained Unit Commitment model that is largely compatible with the design in neighboring jurisdictions (and SMD), but will use a uniform pricing methodology (consistent with the current IMO real-time market). Expected implementation is in Q1 2006

NEXT STEPS

Following extensive discussion of the potential benefits of implementing an inter-regional redispatch mechanism in the Real Time markets, it is the recommendation of the Coordinating Committee to defer any further efforts regarding a regional DAM for the present. It is believed that price convergence in the Real Time Market may provide sufficient incentives for the market participants to hedge transactions in the DAM as well. This DAM issue should be re-visited following the implementation and evaluation of Virtual Regional Dispatch and the implementation of a DAM by the IMO.
N. **FERC STANDARD MARKET DESIGN**

**ISSUE 3.3: FERC Standard Market Design**

The Coordinating Committee shall consider mutually beneficial market enhancements to:

a. Evaluate FERC’s Standard Market Design (SMD) concepts, as adapted to meet the requirements of New York and New England and, as appropriate, pursue alignment of the IMO practices to the SMD requirements and of the SMD practices to the IMO’s requirements in order to provide market participants with seamlessly integrated services between Ontario, New England and New York.

**STATUS UPDATE**

The IMO continues to develop a Day Ahead Market, with expected implementation in Q4 2005, and to consider a resource adequacy mechanism in consideration of the Ontario government’s recent policy announcement. The NYISO is developing the next phase of its real time market (SMD 2.0) with implementation planned for the fall of 2004. These changes will provide further alignment of the three ISOs’ markets.

**NEXT STEPS**

Although the FERC’s proposed Standard Market Design has not become a final rule, the ISOs will continue to develop their markets in line with those concepts from the SMD that are still appropriate.
O. RESOURCE ADEQUACY

ISSUE 3.4: Adequacy Assurance

The Coordinating Committee shall consider mutually beneficial market enhancements to:

a. Ensure that adequate resources remain available to meet customer demand in all timeframes in a manner that is compatible with procedures that are employed in adjoining jurisdictions.

b. Coordinate this effort with the work of the Joint Capacity Adequacy Group and its “General Principles for Installed Capacity.”

STATUS UPDATE

During 2002, the Resource Adequacy Markets Group (RAM Group), formerly known as the Joint Capacity Adequacy Group (JCAG) developed a framework for a central resource market design for the Northeast Region. ISO-NE, the NYISO and PJM formed the RAM Group in late 2001 with the objective of harmonizing the existing ICAP markets in the Northeast United States.

In early 2003, the ISOs made a joint filing with FERC in the SMD Docket, which described an intended plan of action for the RAM Group for 2003 that has largely been met. An independent review of, and recommendation for, a centralized regional resource adequacy market model was contracted for and completed by National Economic Research Associates (NERA).

In parallel with the NERA efforts, the Joint ISOs/RTOs utilized their respective internal resources to assess: (a) resource qualification and testing requirements for supply resources, including intermittent resources, and demand side management resources; (b) issues of resource interchangeability and the need for common resource adequacy products across the ISOs/RTOs; and, (c) whether new credit requirements would be associated with a Central RAM (CRAM) framework.

During 2003, these efforts included a substantial and continuing stakeholder review process, which was implemented by the ISOs on both a region-wide basis and within the individual control areas. The IMO has been participating in these efforts, although the IMO is still evaluating the feasibility of such a resource adequacy requirement for Ontario.

NEXT STEPS

In February 2004, the NYISO submitted a status update report on the RAM Groups efforts during the past year to the FERC. This report indicated that the ISOs and RTOs, both jointly and individually, will continue the stakeholder review process to determine whether a consensus approach to a regional resource adequacy market can be developed,
given the broad range of concerns regarding such a market that have been raised by stakeholder groups. It is also possible, however, that an additional period of time may be required to develop a consensus market approach, given that some new capacity market provisions have only recently been implemented in the individual control areas and other potential new provisions are still under consideration.

The IMO is assessing the implications of the Ontario government’s announcement of the formation of the Ontario Power Authority (OPA) on any potential commitment to the development of a resource adequacy mechanism in Ontario.
P. **EXPORT CHARGES - ELIMINATION**

**ISSUE 4.1: Elimination of Export Charges**

Eliminate “border charges” for exports from U.S. or Canadian suppliers in order to facilitate improved competition over a larger region.

**STATUS UPDATE**

One of the FERC’s principal vehicles to promote wholesale competition has been the creation of larger transmission provider regions—ISOs and RTOs—in order to, among many other functions, eliminate such pancaked export charges within such regions. In addition, the Commission has encouraged ISOs and RTOs to work to eliminate the export charges between their respective regions.

In mid-2003, the New England Transmission Owners (TOs) posted their proposal for the elimination of export charges—which was similar in nature to that adopted in New York, with the exception of a five-year phase out period. That proposal was also reflected in the RTO NE filing made with the Commission in October 2003. NYISO and ISO-NE hosted several meetings with the NY and NE TOs during the last quarter of 2003. In early January 2004, FERC held a meeting with state regulators in the New York, New England and Mid Atlantic region to focus on the importance of the elimination of export fees among these regions. In its Order conditionally approving the RTO-NE application, the Commission directed that export fees between New York and New England be eliminated by the end of 2004.

While PJM, as a policy matter, has remained neutral on the issue of pancaking, they have agreed to facilitate a meeting between New York and PJM Transmission Owners. The PJM TOs, however, have expressed a preference to await a FERC ruling in the PJM/MISO case prior to such meeting.

Finally, the IMO has indicated that, while it does not have the tariff authority to effectuate an elimination of export charges, it would facilitate contacts with Hydro One and the appropriate Provincial entities on behalf of the NYISO. The IMO has reported that Hydro One is supportive of this initiative, subject to the approval of the Ontario Energy Board.

**NEXT STEPS**

The NYISO, ISO-NE and the IMO will continue to pursue the elimination of these border charges initially with their respective TOs and local regulatory agencies during 2004. The ISOs will keep each other apprised of their activities in their respective regions and endeavor to bring together the parties to develop reciprocal agreements at each interface.
ISO-NE is scheduled to make a compliance filing regarding the RTO-NE proposal in June 2004 which will include a plan for the elimination of export fees between New York and New England by December 2004.

Since the Commission has recently extended the PJM/MISO proceedings through late 2004, discussions with the PJM TOs have not yet been scheduled. PJM region state regulators are continuing to participate in discussions with FERC and the other Northeastern states on this issue.

The IMO will continue its discussions with NYISO and will indicate the appropriate time for pursuing this issue with the provincial regulator.
Q. MARKET HARMONIZATION

ISSUE 5.1: Strengthen Market Harmonization

Adopt a market structure, common to New England, New York and the IMO, to provide non-discriminatory, open access transmission and a seamless market across the facilities of the participating entities and their neighboring jurisdictions, consistent with the decisions and orders of U.S. and Canadian regulatory authorities. This structure to contain provisions that are common or compatible with respect to the following matters:

- Market information technical standards
- Information confidentiality practices
- Publishing market information
- Service tariff designs
- Market design and rules
- Business practices
- Standards of conduct
- Market-based congestion management system
- Energy, ancillary services, transmission rights and resource adequacy markets

STATUS UPDATE and NEXT STEPS

As part of the ISO/RTO Council’s Markets Committee’s work plan, the IMO, ISO-NE and NYISO will contribute to the development of a series of white papers documenting “lessons learned” in the design of North American electricity markets. The scope of the papers will be comparable to the above list of matters. The objective of the papers is to provide the bases for “best practices” upon which jurisdictions might evolve their markets, increasing compatibility and reducing seams issues.
### Appendix

ACCOMPLISHMENTS from the May 2003 Report

<table>
<thead>
<tr>
<th>Issue #</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Issue #2.1.a</strong></td>
<td>A. COORDINATE SCHEDULES - CONFIRMATION</td>
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<td></td>
<td>The Coordinating Committee’s re-evaluation of the desirability of a regional Day-Ahead Market has resulted in a shift in focus to the development of a Virtual Regional Dispatch proposal. Consequently, further investigation of a regional Day-Ahead Market has been put on hold at this time.</td>
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<tr>
<td><strong>Issue #2.1.c</strong></td>
<td>C. COORDINATE SCHEDULES – ONE STOP SHOPPING</td>
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<td>The initial implementation of the NYISO’s Open Scheduling System (OSS) was achieved in April 2003 involving PJM and NYISO.</td>
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<td><strong>Issue #2.2.a</strong></td>
<td>TRANSFER CAPABILITIES - This issue has been closed.</td>
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<td>The Coordinating Committee successfully completed the following initiatives, thereby closing out these issues:</td>
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<td>• Posting of TTC/ATC for all interfaces on NPCC web site.</td>
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<td>• Reliability-based maintenance outage coordination.</td>
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<td><strong>Issue #2.4.a</strong></td>
<td>F. MAINTENANCE OUTAGES - See also Issue 2.2.a above</td>
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<td>Comprehensive reliability-based maintenance outage scheduling procedures have been implemented throughout the NPCC region.</td>
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<td><strong>Issue #2.5</strong></td>
<td>G. SYSTEM PLANNING</td>
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<td>A Planning Liaison Task force has been established (including all NPCC members and PJM), and a scope of work identified, to provide enhanced coordination of interregional planning for the Northeastern United States and Canada.</td>
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<tr>
<td><strong>Issue #3.1.a</strong></td>
<td>I. MARKET ENHANCEMENTS/EVOLUTION – GENERAL</td>
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<td>Each ISO has carried out significant actions to pursue market convergence in their respective markets:</td>
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<td>• These include the successful implementation of SMD 1.0 in ISO-NE in March 2003; the IMO’s Market Evolution Program initiated in August 2002 and the NYISO Board’s approval of its SMD 2.0/Real Time Scheduling System for implementation by Summer 2004.</td>
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<td>• Harmonization of two significant aspects of market design has been achieved with ISO-NE’s adoption of NYISO-style demand response programs and of a UCAP capacity product (also used in PJM) as part of SMD 1.0.</td>
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<td>Issue #</td>
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<tr>
<td>Issue #3.2</td>
<td>M. DAY AHEAD MARKET – see Issue #2.1.a above</td>
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<tr>
<td>Issue #3.3.a</td>
<td>N. FERC STANDARD MARKET DESIGN</td>
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<td>The US ISOs/RTOs, joined by the IMO, made a joint filing in November 2002 in</td>
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<td>support of the major elements of FERC’s SMD NOPR.</td>
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<td>Issue #3.4</td>
<td>O. RESOURCE ADEQUACY</td>
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<td>ISO-NE, NYISO and PJM made a joint filing in January 2003 supporting the</td>
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<td>development of central resource adequacy market for the Northeast. The IMO</td>
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<td>is participating in this process.</td>
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<tr>
<td>Issue #4.2</td>
<td>G. SYSTEM PLANNING – See Issue 2.5 above</td>
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<tr>
<td>Issue #4.4</td>
<td>C. COORDINATE SCHEDULES – ONE STOP SHOPPING – See Issue #2.1 above</td>
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May 4, 2004