

Final Minutes
New York State Reliability Council, L.L.C. (NYSRC)
Executive Committee
Meeting No. 143 – March 11, 2011

Members and Alternates
in Attendance:

George C. Loehr	Unaffiliated Member – Chair
Curt Dahl, PE	LIPA - Alternate – ICS Chair
Bruce Ellsworth	Unaffiliated Member
Richard J. Bolbrock, P.E.	Municipal & Electric Cooperative Sector – Member
William H. Clagett	Unaffiliated Member - Phone
George Smith	Unaffiliated Member
Mike Mager, Esq.	Couch White, LLP (Large Customers' Sector) – Member - Vice Chair
Mayer Sasson	Consolidated Edison Co. of NY, Inc. – Member
Joe Hipius	National Grid, USA – Member
Dave Kimiecik	New York State Electric & Gas/Rochester Gas & Electric – Member – Phone
Tom Duffy	Central Hudson Gas & Electric – Member*
Arnie Schuff	New York Power Authority – Member - Phone
Chris LaRoe	IPPNY (Wholesale Sellers) – Member

Others:

Paul L. Gioia, Esq.	Dewey & LeBoeuf LLP - Counsel
Al Adamson	Consultant – Treasurer
Roger Clayton	Electric Power Resources, LLC – RRS Chairman
Wes Yeomans	New York Independent System Operator (NYISO)
Henry Chao	New York Independent System Operator (NYISO)
John Adams	New York Independent System Operator (NYISO)
Carl Patka, Esq.	New York Independent System Operator (NYISO) - Counsel
Edward Schrom	NYS Department of Public Service - Phone

Visitors – Open Session:

Erin Hogan, P.E.	NYSERDA*
Scott Leuthauser	HQUS
Roger Caiazza	EEANY
Dejan Sobajic	New York Independent System Operator (NYISO)*

“*” – Denotes part time attendance at the meeting.

Agenda Items – (Item # from Meeting Agenda)

I. Executive Session – An Executive Session was not requested.

II. Open Session

1.0 Introduction – Chairman Loehr called the NYSRC Executive Committee (Committee) Meeting No.143 to order at 9:30 A.M. on March 11, 2011 at the Albany Country Club.

1.1 Meeting Attendees – All Members and/or Alternate Members (or representatives) of the NYSRC Executive Committee were in attendance.

1.2 Visitors – See Attendee List, page 1.

1.3 Requests for Additional Agenda Items – None

1.4 Declarations of “Conflict of Interest” – Mr. Loehr noted that he is no longer representing the Sierra Club regarding application for the proposed PATH line, since the applicants have withdrawn their applications.

1.5 Executive Session Topics – None

2.0 Meeting Minutes/Action Items

2.1 Approval of Minutes for Meeting No. 142 (February 11, 2011) – Mr. Raymond introduced the revised draft minutes which included all comments received to date. Following discussion, Mr. Ellsworth moved for approval of the draft minutes. The motion was seconded by Mr. Smith and unanimously approved by the Executive Committee Members – (13 to 0). The Executive Secretary will post the minutes on the NYSRC web site – **AI #143-1**.

2.2 Action Items List – The Committee reviewed the Outstanding Action Items list and accepted removal of the following items:

<u>Action Item #</u>	<u>Comments</u>
132-6	Mr. DeCotis is now working for LIPA.
141-5	NERC is developing the Exemption Process internally.
142-2	Comments were provided prior to the March 11, 2011 Executive Committee meeting.
142-3	Mr. Adams presented the NYISO’s Wind Study at the March 11, 2011 Executive Committee meeting.

3.0 Organizational Issues

3.1 NYSRC Treasurer’s Report

i. Summary of Receipts & Disbursements - Mr. Adamson presented the Summary of Receipts and Disbursements which showed a balance of \$128,000 at the end of February, 2011. Also, he requested Executive Committee approval of a 2nd Quarter 2011 Call-for-Funds of \$30,000 per TO. Following discussion, Mr. Mager moved for approval of the request. The motion was seconded by Mr. Duffy and unanimously approved by the Executive Committee – (13 to 0)

ii. 2010 Audit – Mr. Adamson reported that the Auditor, Slocum, DeAngelus & Associates, P.C., has completed and filed the 990 forms for 2010. Also, Mr. Adamson distributed the 2010 Audit Report to each Executive Committee member, the Executive Secretary, and the Legal Counsel. The Audit Report states that in the opinion of the Auditor “the financial statements provided by the New York State Reliability Council, LLC present, in all material respects, the cash receipts and disbursements of the New York State Reliability Council, LLC for the years then ended December 31, 2010 and

2009.....”.

3.2 Other Organizational Issues –

i. D&O Insurance – Mr. Gioia reported that the NYSRC has received a renewal quote for the current Directors and Officers’ (D&O) insurance policy, which expires April 6, 2011. The quote of \$45,429 plus 3.8% for taxes and fees is slightly less than the current policy. The renewal policy terms and conditions would be the same as the expiring policy: a \$10 million limit with a \$100,000 retention. Mr. Gioia indicated that the Executive Committee members unanimously accepted the renewal quote via email vote. Mr. Bolbrock suggested that increasing the \$10 million limit may be prudent in subsequent years – **AI #143-2**.

ii. Draft Biennial Report – Mr. Adamson introduced the draft NYSRC 2009-2010 Biennial Report and noted receiving input from Mr. Smith (Defensive Strategies) and Mr. Clayton (RRS and Environmental Issues). It is expected that the final draft will be available for approval at the April 7, 2011 Executive Committee meeting. Two bids are currently being evaluated for printing services. Mr. Adamson requested that any additional comments be provided by March 18, 2011. Mr. Dahl volunteered pictures for the report. Also, Mr. Loehr requested input for the “Chairman’s Letter” by March 14, 2011 – **AI 143-3**.

iii. Other Issues – Mr. Gioia noted several items that had occurred since the last Executive Committee meeting: (a) on February 17, 2011 the PSC issued an Order adopting the 2011-2012 IRM previously adopted by the NYSRC, (b) the NYSRC submitted a letter to the PSC in support of the NYISO petition for the new control center, (c) at the NYISO’s February 24, 2011 Management Committee meeting, the NYISO adopted conforming amendments to the ISO Agreement to eliminate a conflict with changes made to the NYSRC Agreement regarding member participation on NYISO committees. It is expected that the NYISO Board will approve the changes and make the necessary filing with FERC, and (d) version 29 of the Reliability Rules Manual was filed with the PSC on February 23, 2011.

Also, Mr. Gioia reminded the Executive Committee that it is nearing the time to elect Executive Committee officers and appointed members and alternates. He will circulate the rules and process for the selection of appointed members. Regarding the officers, it has been the practice that the Vice Chair becomes the Chairman. Mr. Gioia will send an email request for nominations for the position of Vice Chair – **AI #143-4**.

4.0 Key Reliability Issues

4.1 Defensive Strategies – Mr. Smith announced that EnerNex (Knoxville, Tenn) has been selected by the NYISO to perform the NYISO Controlled Separation Study portion of the NYISO’s DOE “Smart Grid” project. He participated in the final evaluation of bidders and complimented the NYISO for performing a rigorous and detailed evaluation and overcoming the numerous hurdles associated with DOE grant awards. Also, special thanks was given to Zack Smith for providing the technical lead. EnerNex will be using GE MAPPs dispatch information to identify the most likely scenarios to analyse in the controlled separation studies.

Mr. Smith introduced Mr. Dejan Sobajic, manager of the NYISO's DOE Smart Grid Investment Grant Projects. Mr. Sobajic presented a comprehensive review of the scope of the Projects. He indicated that the Grant includes the implementation of: (a) switched/controllable capacitor banks within NYCA for enhanced control and coordination of the system voltage profile, and (b) a New York State Phasor Measurement System which includes the measurement facilities, data utilization and operational support.

The capacitor bank project covers the installation of 788 MVars of capacitor banks throughout the NYCA. Progress to-date includes completion of: (a) a functional understanding of Smart Grid enabled capacitors and acceptance by the NYISO and TOs, (b) function specifications for the capacitor controller and acceptance by the NYISO and TOs, and (c) confirmation from DOE regarding the

proposed capabilities of the capacitor banks and their controllers. The Project Team is currently in the progress of finalizing schedules and the locations with the TOs.

The Phasor Measurement Network (PMN) is designed to enhance operator situational awareness. With the growth of system size, data volume (monitoring of dynamic system conditions), complexity increases and present visualization tools and techniques will soon become inadequate. The PMN project design: (a) complements the existing conventional SCADA/EMS systems, (b) is adaptable to the evolution of interoperability and cyber security standards, and (c) is capable of supporting wide area (regional) security monitoring and post disturbance analysis. Deployment of the PMN will be in stages that are compatible with up-scaling. The situational awareness applications will display trending NYCA frequency and voltage at multiple locations, trending of key interface loadings, trending of phase angle between key load and transmission busses, and monitor selected power oscillation modes. The capacitor bank and PMN projects must be completed by June 2013 per the terms of the DOE Investment Grant.

4.2 NPCC Defensive Strategy Activities – Mr. Loehr inquired how the exception process pertaining to the NERC “Definition of Bulk Electric System” project is being developed. Mr. Raymond responded that Mr. Fedora has indicated that the SAR Drafting Team is developing the revised definition of Bulk Electric System and the criteria for exceptions. In parallel, the NERC Rules of Procedure are being revised by NERC to describe a process and methodology for exceptions to the BES Definition, in close coordination with the activities of the Drafting Team. Mr. Dahl noted that Mr. Schwerdt (NPCC) indicated at the February 2011 NPCC-RCC meeting that NPCC is over weighted in its representation on the SAR Drafting Team.

4.3 Smart Grid – Status of NYISO Activities – See item 4.1

4.4 Interregional Transmission Studies

i. EPIC Study – Mr. Chao reported that the 2020 Roll-up powerflow case is complete and may be obtained through a request sent to Zack Smith of the NYISO. The revised Roll-up Model Report has been updated to discuss gap analysis, gap solutions and the linear transfer analysis results. There are no changes between the Roll-up and baseline infrastructure cases for the New York system.

The Pipe limits have been developed for use in CRA’s MRN-NEEM macroeconomic analysis based on input from each participating area and guidance from the linear transfer analysis results. The Definitions of macroeconomic futures and sensitivities are expected to be finalized by the end of March 2011 and initial results of the Business-As-Usual case should be available in April/May 2011.

ii. IPSAC Study – Mr. Adams indicated that an IPSAC webinar will be held on March 30, 2011. Registration information is available on the NYISO calendar. The webinar will include (a) IREMM and PROMOD production cost study results, (b) the role of energy efficiency and how it affects the planning process in each of the ISO/RTOs, and (c) an update on the FERC Planning NOPR. The NYISO/ISO-NE/PJM data inputs and assumptions have been coordinated in developing the IREMM model for inter-area production cost studies.

The 2011 Northeast Coordinated System Plan will include the following metrics: a) production costs, b) load serving entity energy expense and c) congestion by constraint. A draft report is expected in the second quarter of 2011.

iii. NPCC – Nothing new to report.

4.5 Kaya Identity Analysis of Decarbonization of the NY Economy – Mr. Clayton introduced Mr. Roger Caiazza who was invited to present a “Kaya Identity” analysis of the decarbonization of the NY economy required to achieve the Climate Action Plan goal of 40% reduction by 2030. The “Kaya Identity” analysis is based on the work of Dr. Roger A. Pielke, Jr., documented in his book, The Climate Fix. The presentation was adapted from the initial presentation given by Dr. Pielke to the Colorado Air Quality Control Commission on February 18, 2010. The analysis is an independent look

at the interim goal of a 40% reduction in CO₂ emissions by 2030 in New York State per Order 24 signed by Governor Paterson on August 6, 2009.

Mr. Caiazza explained how the “Kaya Identity” analysis determined that decarbonization of the NYS economy is driven by a decrease in the ratio of carbon dioxide emissions to Gross State Product (GSP). The practical levers for change are increased efficiency (eg., reduced energy intensity of the economy) and/or switching energy sources (eg., reduced carbon intensity of energy through new technology). The current level of decarbonization in NYS is about .23 tonnes CO₂ per \$1000 GSP. The analysis suggests that a 2-3% decrease in the decarbonization rate annually is necessary to achieve the Climate Action Plan’s goals. Historical rates of 1-2% have occurred in developed countries, but not on a sustained basis. Furthermore, to achieve the 2-3% decarbonization rate would require about 14 new 1100Mw nuclear plants by 2030 to displace a sufficient amount of CO₂ emissions.

While the current emission reduction goals appear unrealistic, Dr. Pielke recommends focusing policy on decarbonization of the economy, not simply emissions, and focused investments to encourage innovation in specific energy sectors. Further, he feels that CO₂ Cap and Trade or a Carbon tax are insufficient to meet the goal.

The Executive Committee expressed concern that the analysis as presented lacked the rigor to support the conclusions or to play a role in the debate over how to achieve the CO₂ emission goals.

5.0 Installed Capacity Subcommittee Status Report/Issues

5.1 ICS Chairman’s Report and Discussion Issues – Mr. Dahl summarized the March 2, 2011 ICS meeting as shown below:

a) 2012/13 IRM Study Assumptions Development

ICS reviewed a second draft of the 2012/13 IRM Assumptions matrix. The major items discussed included transmission topology, EFORd true-up, SCR modeling issues, wind model, and external contracts.

ICS discussed a Con Edison draft technical white paper covering EFORd true-up issue. The paper concluded that no EFOR true up is required if the transition rates were computed correctly from the original event data. ICS agreed to review the paper and provide additional comments. Due to the technical nature of the issue it was agreed to involve General Electric in the review. ICS also discussed TPAS role in reviewing the Transmission topology.

b) Policy 5

ICS discussed changes to Policy 5 necessary to incorporate enhancements to NYSRC IRM study process agreed to at the February Executive Committee meeting. It was agreed that the revisions will include new timeline, assumption matrix preparation, preliminary and final base case concept, development of models and transmission system model, sensitivity analysis, and base case accuracy. It was agreed that the Policy 5 changes will be submitted to the Executive Committee in time to support implementation for the upcoming IRM cycle – **AI-142-4**.

c) Request for NYISO Assessment of SCR Performance (NYSRC May 2010 request to NYISO)

ICS discussed a letter issued by the ICS Chairman to the NYISO regarding the need to collect all hourly performance data associated with SCR events so the NYSRC can perform a complete assessment of performance.

NYISO representatives indicated development of a scope and work plan was underway to support the requested SCR performance evaluation and will be available for discussion at the March 29, 2011 ICS meeting. ICS noted the importance of obtaining a response to the SCR Assessment request in sufficient time for inclusion in the 2012/13 IRM study.

d) IRM MARS database for LIPA and Con Edison based on “Information Use Agreement”

NYISO confirmed GE is on schedule to resolve database encryption issues by June 2011 in order to support implementation in this year’s IRM. ICS noted the importance of this initiative to support enhanced Q/A activities for the upcoming IRM cycle.

During discussion of item (a) above, Mr. Hipius indicated that he had been led to believe that ICS is pursuing the ConEd approach while no progress has been made vetting the open questions regarding the NYISO “true-up” methodology which has been favorably reviewed by GE. Furthermore, proceeding with the ConEd approach would cause a time delay such that the transition to EFORds would not be available for the 2012-2013 IRM Study. Mr. Dahl explained that a delay may occur using the ConEd approach because of a need to revise the GADS SAS used in translating the proper event data to MARS transition data. He stated that ICS has posed questions to GE that have gone unanswered for months and that further review of the EFORd approach had been suspended until GE responds. This constraint was not previously known by several present and it was clear that follow-up with GE would be necessary to obtain the needed information. Also, GE’s availability to address ICS questions regarding their analysis supporting the NYISO methodology has been limited by the retirement of Gary Jordan. Mr. Dahl added that ICS hopes to fully vet both approaches and perhaps hold a workshop once ICS has reached a consensus. Dr. Sasson emphasized the need for a thorough review regardless of the time required. At the urging of Messrs. Mager and Adamson, Mr. Chao agreed to speak with GE directly to assure its attendance at the next ICS meeting – **AI #143-5**.

5.2 Other ICS Issues – Nothing additional to report.

6.0 Reliability Rules Subcommittee Status Report/Issue

6.1 RRS Status Report & Discussion Issues – Mr. Clayton reported that the first joint RRS/RCMS meeting occurred on March 1, 2011. All members of both Subcommittees are functioning as “joint” members. Two separate meetings were held, each with its own agenda and minutes.

Mr. Clayton introduced the List of Potential Reliability Rules Changes – Outstanding and noted that PRRs #8, Reactive Load and Resources PF, and #52, Generator Governor Response, are waiting for completion of the Operating Reactive Study and the NPCC –SS 38 investigation of governor response, respectively. PRRs #104, Verification Testing of Resource Capacity, and #106, G-M3: Revised Blackstart Measurement, have received final approval of the Executive Committee.

6.2 Status of New/Revised Reliability Rules

i. Proposed NYSRC Reliability Rules Revision

a. List of Potential Reliability Rules (“PRR”) Changes

b. Status of New/Modified Reliability Rules

1. PRRs for EC Final Approval

- None

2. PRRs for EC Approval to Post

- None

3. PRRs for EC Discussion

- None

6.3 NPCC/NERC Standard Tracking

i. NERC Standards Development – Nothing new to report.

ii. NPCC Standards – Mr. Adamson noted that NPCC is proposing to revise its Special Protection System (SPS) definition to specify that automatic Under Voltage Load Shedding (UVLS) is not considered a SPS.

Under this new definition the level of scrutiny presently required for UVLS would be reduced.

Mr. Hochberg (NYPA) agreed to investigate further the details of the NPCC proposal.

Mr. Loehr expressed concern regarding misoperation and the use of UVLS to avoid building new

transmission. Mr. Clayton noted that in the northwest approximately 4% of the load is armed for UVLS.

6.4 Other RRS Issues

- i. LOG-MOB Rules** – Mr. Clayton reminded the Executive Committee that he was asked to take the initiative in forming a small group to examine the LOG-MOB issue. After discussion with Mr. Chao, he is taking the approach of first confirming that a problem exists by determining the amount of New York generation that is subject to the LOG-MOB rule and the portion that is subject to the 25% minimum oil burn e.g. running pre-contingency on oil. This information will be addressed at the next NYSRC/DEC meeting. If more than 1000Mws falls into the 25% minimum oil burn category, last year's RNA indicates that there is a potential problem for the Year 2020. Messrs. Chao and Carney (NYISO) and ConEd will be participating. Also, Dan Head (ConEd) has agreed to give the RRS a presentation on how ConEd determines the load levels at which fuel switching to oil takes place.

7.0 Reliability Compliance Monitoring Subcommittee (RCMS) Report/Issues

- 7.1 RCMS Status Report & Discussion Issues** – Mr. Clayton reported that RCMS received a presentation from Zack Smith (NYISO) regarding RR #103, System Data Requirements (Data Review and Checking). Also, Mr. Smith presented the results of the Comprehensive Area Transmission Review. The review concluded that the NYCA system meets all reliability requirements of the NYSRC, NPCC, and NERC. A draft report is due before March 17, 2011 and will be reviewed at the March 31, 2011 RCMS meeting.
- 7.2 2011 Reliability Compliance Program (NYRCP)** – Mr. Clayton introduced the Reliability Compliance Program for 2011 (a.k.a. the Scorecard) and reported that RCMS reviewed Measurement A-M1, Establishing NYCA IRM Requirements, and found the certification information to be in full compliance.
- 7.3 Other RCMS Issues** – Mr. Clayton noted that RCMS has begun a revision of Policy 4, Procedure For Monitoring Compliance With The NYSRC Reliability Rules. Also, RRS and RCMS are reviewing the scope of their respective Subcommittees.

8.0 State/Federal Energy Activities

- 8.1 NYISO 2010 Comprehensive Reliability Planning Process (CRPP)** – Mr. Adams reported that the CARIS II studies for the Leeds-Athens PARs project are proceeding with ten years of base case modeling. The NYISO will provide base case results to the developer and to ESPWG after confirmation that they are prepared for modeling of the project cases. Also, CARIS I for 2011 began with initial presentations and discussions with the ESPWG in January 2011. Modeling changes will be presented to ESPWG in March 2011. The database changes will use the 2011 Gold Book which is expected to be released in April 2011. Market Participants were requested to provide updated information regarding existing and projected transmission, generation, and demand response by February 28, 2011 for use in the 2011 Gold Book.
- 8.2 NYISO Wind Study** – Mr. Adams provided a summary presentation of the NYISO's final report on its 2010 Wind Generation Study. He reminded the Executive Committee that currently there are 1349Mws on the NYCA system and 7000Mws currently in the NYISO interconnection queue of which 1900Mws is located downstate. The NYISO was requested to study the impact of wind generation up to 8000Mws. The Study evaluated 3500Mw, 4250Mw, 6000Mw and 8000Mw wind generation scenarios. Mr. Adams focused his comments on the impacts of higher penetrations of wind on system variability and operations, transmission infrastructure and system performance, and energy production and production costs for the NYS system. The Study found that there is no adverse reliability impact with 8000Mws of wind, and sufficient load following resources can be expected to meet ramping requirements without increasing operating reserves. However, the wind variability does raise

Regulation Service requirements by about 9% for every 1000Mws increase in wind generation above 4000Mws. Also, winds low availability will increase the required IRM to about 32-33%.

Deliverability begins to become an issue beyond the Class of 2008 wind projects. For example, at 6000Mw penetration, 8.8% of the potential wind production in three upstate zones is “bottled”. The principal transmission constraints are local 115kV facilities. Transmission upgrades costing about \$320 million could reduce the “bottling” to about 1%.

Production costs decreased in the 8000Mw scenario by 16.6% when compared to the base case by displacing primarily upstate gas generation. In addition, CO₂, NO_x, and SO_x emissions were reduced by 8.5%, 7.0%, and 9.7%, respectively.

The Study concluded that (a) 8000Mws of wind generation can be reliably supplied, (b) due to wind’s variability and low availability, wind poses operating challenges such as higher net-load ramps, (c) the NYISO’s security constrained economic dispatch is capable of managing and responding to higher magnitude ramps, but increases the need for Regulation Service, (d) transmission upgrades could be needed to reduce wind energy “bottling” and (e) wind resources will generally result in lower overall production costs, but may create a challenging economic environment for conventional resources needed to provide ramping, reserves, and regulation.

8.3 Other Studies/Activities – Nothing additional to report.

9.0 NYISO Status Report/Issues

9.1 NYSERDA – Update – Mr. Chao reported for Ms. Hogan that the Energy Planning Board is required to undertake a reliability study of the overall reliability of the State's electric transmission and distribution system. The requirements, specified in the following link to statutory language, are very similar to a study that was conducted in 2000 (<http://www.nyserda.org/sep/t&dreport.pdf>). The Energy Coordinating Working Group has identified organizations that may be interested in participating in the study, including the NYSRC. George Loehr will be the contact person for the NYSRC.

9.2 NPCC Report – Nothing new to report.

9.3 FERC 100kV “Bright Line” – Status – See item 4.2.

10.0 Other Items

10.1 NYISO Operations Report – Mr. Yeomans reported that for February 2011, the peak load occurred on Tuesday, February 1, 2011 at 23,443Mws versus the all time winter peak of 25,541Mws on December 20, 2004. There was one Major Emergency declared in February 2011 for exceeding the Central-East transfer limit by more than 5% due to the loss of 1400Mws in New England. Fifteen TLR Level 3s were declared for a total of 128 hours.

10.2 North American Energy Standards Board – Nothing new to report.

11.0 Visitors’ Comments – None

12.0 Meeting Schedule –

Mtg.

No.

Date

Location

Time

#144	Apr. 7, 2011	Albany Country Club, Voorheesville, NY.	9:30 A.M.
#145	May 13, 2011	Albany Country Club, Voorheesville, NY.	9 :30 A.M.

The open session of Committee Meeting No.143 was adjourned at 3:30 P.M.

