

**Joint Meeting of the
New York State Reliability Council, L.L.C. (NYSRC)
Reliability Rules Subcommittee (RRS)/
Reliability Compliance Monitoring Subcommittee (RCMS)
Teleconference Call
Tuesday, December 2, 2015**

Minutes of RRS Meeting No. 196

RRS Members and Alternates:

Larry Hochberg, NYPA (Vice Chairman filling in as Chairman)
Zoraini Rodriguez, PSEG_LI/LIPA
Brian Shanahan, National Grid
Martin Paszek, Con Edison
Matilda Duli, Con Edison
Brian Gordon, NYSEG/RGE

Non-Voting Participants:

Al Adamson, Consultant
Wes Yeomans, NYISO (Dual Fuel discussion)
Jim Grant, NYISO
Mark Capano, NYISO
Aaron Markham, NYISO
Chris Sharp, NYISO
George Cane, NYISO
Max Epstein, Potomac Economics
Wayne Sipperly, NYPA
Dan Head, Con Edison

RRS Meeting # 196 was called to order by Mr. Hochberg at 9:30 am.

1. Introduction

1.1 Executive Session

None requested.

1.2 Requests for Additional Agenda Items

Emergency Transfer Criteria added as item 6.2. RRS accomplishments for 2015 added as item 6.3.

2. Approval of Minutes / Action Items

2.1 Approval of RRS Minutes #195

RRS reviewed the Minutes from the last meeting. On page 3, “Transmission Owners” were capitalized and on page 4 description of an Action Item was revised. With these changes, Minutes are considered as final.

2.2 RRS Action Items List

Action Item 195-1: Discussion today but change status completion for the next meeting.

Action Item 195-2: Discussion today and change status to complete.

Action Item 195-3: Discussion today and change status to complete.

Action Item 195-4: Discussion today and change status to complete.

Action Item 195-5: Discussion today but change status completion for the next meeting.

Action Item 195-6: Change status completion for the next meeting.

Action Item 194-2: Discussion today and change status to complete.

Action Item 194-5: NYPA reports that reference to Planning rule is acceptable. Change status to next meeting for National Grid to review.

Action Item 194-6: Change status completion for the next meeting.

Action Item 193-2: On agenda today and status is changed to complete.

Action Item 189-6: Status is still ongoing.

Action Item 186-13: Change status to complete. New action item is to be created later in today’s meeting.

3. NYSRC Reliability Rules Development

3.1 Outstanding PRR List

3.1.1 PRR 120 Transmission System Planning Performance Requirements

PRR 120 – R1 comments are acceptable by the NYISO. Mr. Adamson does not understand where the redundancy is found. The comments collected from the NYISO states that R1.1 is asking for a transfer analysis twice and requests that the redundancy in the language be removed. PRR 120 - R 1.2 is similar in comment from the NYISO. Mr. Adamson states that it references Table B-1 and B-2 so it does not appear to be a duplicate requirement. The NYISO commented on R4 for the need to require a fault duty procedure. Mr. Adamson reports that Directory 1 R10 requires a procedure so that the

reliability rules should also require a procedure to not be less stringent. He further stated that the NYISO has this as a compliance requirement for the NPCC so it should not require any additional procedures to be developed. Mr. DePugh will comment on this one as well. In a similar fashion, M1 requires a procedure but it should again reference an existing procedure. The NYISO states that the reason it that the NYISO does not want an additional compliance requirement. Mr. Grant will ask Mr. DePugh to elaborate or make document corrections on what specifically is redundant in PRR 120 R1, R 1.2, R4, and M1 so that changes can be developed (**Action Item 196-1**).

3.1.2 PRR 121 B.2, Transmission Planning Assessments

Mr. Grant reported on the NYISO comments for R1 addressing procedure on NYCA procedure in an old format. The planning function should be mentioned instead of operating function. The RRS agreed this PRR is completed and is ready to move to the EC for posting. This will not be forwarded to the EC until PRR 120 and 122 are completed. No more changes needed for PRR 121. Action Item to revise the old procedure that was referenced (**Action Item 196-2**).

3.1.3 PRR 122 C.1, Establishing Operating Transfer Limits

No update at this time.

3.2. Dual Fuel generator testing and fuel supply

The background of dual fuel assurance was reviewed by Mr. Hochberg. The EC asked the RRS to investigate the need for a dual fuel reliability requirement. The EC had concerns over fuel switching performance during past periods of low temperatures and resulting high usage of Natural Gas. As a result the RRS developed action items to learn more about generation switching failures, National Grid gas supplied units, and Transmission Owner notification with units that may experience fuel shortages.

Mr. Yeomans reports on the NYISO position surrounding these action items that were developed:

3.2.1 NYISO Generic response on generation switching failures

Over past winter there were 170 generation fuel switching events. Of these, 160 fuel switching events were successful and 10 fuel switching events resulted in the generators tripping offline. Mr. Cane discussed in more detail but generically about these ten generation tripping events during winter period. He stated the decision for initiating a fuel switch was based on economics and reliability. The generators usually drop down in load level output to about 30 MW to switch from gas to oil for better switching performance. When switching from oil source to gas source, it is a requirement for units to reduce in load to 30 MWs of output because water injection is required. Problems in fuel switching can be experienced on the oil supply side and on the water injection side. Units that are the most successful have utilized best practices. One best practice is for the generation owner to install a liquid fuel recirculation system to maintain temperature so that the switch from gas

to oil will happen more reliably. Another best practice is to periodically test the units to exercise the switch. This test is usually performed during normal unit shutdown periods and fuel switch to demonstrate the reliability of the switch. It was also reported that most units are utilizing these practices. It was also reported by Mr. Cane that when units fail to switch fuel and trip offline, these units can usually start within the hour. Mr. Paszek reported that Con Edison area has experienced a 10 percent fuel switching failure with their data but the NYISO has experienced 10 out of 170. The NYISO also reported that the units that failed were the large combined cycle units and evenly interspersed with those using the best practices or not using the best practices. Those units with fuel recirculation systems were overall more reliable. Units that practice both best practices comprise about 60% to 75% of the fuel switching capable units.

3.2.2 National Grid gas LDC units

More background was explained on the fact that some units in Con Edison electric service territory are supplied gas from the Con Edison LDC system and some units are supplied gas from the National Grid LDC system. Con Edison's Transmission Planning criteria requires new or re-powered generating projects proposing to be installed in the Con Edison service territory and supplied from the Con Edison LDC gas system, to have dual fuel switching capability. There are no requirements on new generation to have fuel switching capability if supplied from the National Grid LDC gas system. The issue at hand, does this make sense and is it acceptable. The RRS asked if the NYISO address these issues with its rules or tariffs as opposed to creating a reliability rule. Mr. Yeomans reported that the NYISO regularly monitors conditions to raise concerns and during the last 24 months there have been market rule changes that resulted in stronger market signals and have instituted higher reserve requirements. It was also reported that they have received more information from the voluntary fuel surveys to assist the NYISO detect fuel shortage conditions. Fuel surveys have been very good and have contained accurate information on fuel deliveries and levels of backup storage. If the NYISO detects any issues on fuel assurances through their monitoring processes, the NYISO would proceed to develop more stringent rules. If RRS creates a rule the NYISO will review the proposal to make sure the need is present to support the effort and cost involved. Action Item 193-2 will remain open.

3.2.3 Fuel assurance

LIPA mentioned the need to know when fuel shortages are detected from the upstate gas supply. It was stated that the NYISO is currently in a better position than the Transmission Owners in detecting and identifying potential upcoming gas shortage events for gas generation. The NYISO reports that the weekly updates during day to day operating conditions and daily updates during high load periods may not be as accurate a system to accurately identify gas shortages but it may be useful information. Better ideas about fuel supply and information exchange can be provided by the NYISO at the next meeting.

3.3 Bucket Item List

Items 7 and 8 will be done by NYISO.

4. NPCC Directories

4.1 Directory 1 Discussion

No new information to report.

5. NERC SARS/Organization Standards

5.1 NERC Standard Tracking

Mr. Adamson voted yes on all listed by following Con Edison and National Grid recommendation.

6. Additional Agenda Items.

6.1 Reforming the Energy Vision (REV)

Move this item for the next meeting.

6.2 Emergency Transfer Criteria

This item is to determine the consistency of the NYISO rules manual with NPCC descriptions of emergency transfer criteria. There are two existing action items: Interpretation of NPCC phase “prior to load shed” (NPCC has an interpretation process) and the NYISO will send again the previous PowerPoint presentation on Emergency Transfer Criteria (ETC).

6.3 List of Accomplishments

An action item is for the RRS to review the draft version of the list of accomplishments and send any changes to Mr. Gordon (**Action Item 196-3**). Mr. Adamson mentioned that the RCMS used a narrative form and it was approved in February last year.

7.1 NYSRC EC Meeting Report

There is nothing to report.

7.2 NYSRC ICS Meeting Report

Yesterday ICS approved a draft IRM report to send to EC for approval at the Friday meeting. It includes the PJM five zone model and it recommends a 17% IRM.

Meeting ended at 11:00.

Next Meeting #197

Wednesday, January 6, 2015; 9:30 am @ NYSERDA, 17 Columbia Circle, Albany