

**Joint Meeting of the
New York State Reliability Council, L.L.C. (NYSRC)
Reliability Rules Subcommittee (RRS) /
Reliability Compliance Monitoring Subcommittee (RCMS)
Thursday, May 5, 2016**

Minutes of RRS Meeting No. 201

RRS Members and Alternates:

Roger Clayton, Electric Power Resources (Chairman)
Larry Hochberg, NYPA (Vice Chairman) (Phone)
Zoraini Rodriguez, PSEG_LI/LIPA (Phone)
Martin Paszek, Con Edison (Secretary)
Roy Pfleiderer, National Grid (Phone)
Erin Doane, Central Hudson
Brian Gordon, NYSEG/RGE (Phone)

Non-Voting Participants:

Al Adamson, Consultant (Phone)
Matilda Duli, Con Edison (Phone)
Dan Head, Con Edison (Phone)
Brian Shanahan, National Grid
Jim Grant, NYISO
Mark Capano, NYISO
Chris Sharp, NYISO
Douglas Deay, NYISO
Cinto Pascazio, NYISO
Aaron Markham, NYISO (Phone / Partial)
Wayne Sipperly, NYPA
Matthew Schwall, IPPNY
David Johnson, Read & Laniado, LLP
James D'Andrea, Attorney for TC Ravenswood
Howard Fromer, PSEG Power New York
Marji Philips, Direct Energy (Phone)

RRS Meeting # 201 was called to order by Mr. Clayton at 9:30 am.

1. Introduction

1.1 Executive Session

None requested.

1.2 Requests for Additional Agenda Items

None requested.

2. Approval of Minutes / Action Items

2.1 Approval of RRS Minutes #200

RRS reviewed the Minutes from the last RRS meeting. Minor comments were provided to the Minutes and with these changes, Minutes are considered as final.

2.2 RRS Action Items List

Action Item 200-9: On agenda today and status is changed to complete.

Action Item 200-8: Mr. Grant stated that the NYISO has met internally, and upon review of the NYISO Planning and Operating Manuals, reached a conclusion that these manuals do not have to be modified. The NYISO will reference, in its Planning and Operating reports, the Exceptions to the NYSRC Reliability Rules that were invoked by the NYISO in its analysis. Status of this Action Item is changed to Completed.

Action Item 200-7: Mr. Clayton stated that upon receiving all required documentation (from Transmission Owners and the NYISO) the modified Exceptions were approved by the NYSRC Executive Committee. Status of this Action Item is changed to Completed.

Action Item 200-6: On agenda today and status is changed to complete.

Action Item 200-5: Mr. Grant stated that Mr. Markham will call in and provide an answer to the posed question. Status of this Action Item is changed to Completed.

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The following discussion – related to Action Item 200-5 – occurred after Agenda Item 3.1.1. Mr. Markham joined RRS Meeting.

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Mr. Markham answered the following questions: “why the NYISO wouldn’t declare Major Emergency for a Stuck Breaker or Loss of Tower contingency.”

Mr. Markham stated: NPCC region operates to a higher level of transmission security than required by NERC Standards; that is the NYISO respects Common Tower and Stuck Breaker contingencies (these are not required from NERC perspective). NPCC recognizes that conditions may occur that in order to secure to these contingencies, pre-contingency load shedding would have to be invoked. In order to avoid pre-contingency load shedding (for these contingencies) NPCC in its processes allows the declaration of ETC and then allows the entity (i.e. NYISO) to revert to NERC criteria (for the period of ETC declaration). The NYISO will do everything in its power to terminate ETC. Major Emergency does two things: (1) situational awareness and (2) allows voltage reduction and load shed to the action list System Operators may take. When ETC is called for Common Tower and Stuck Breaker contingencies the NYISO provides (1) situational awareness. **Action Item 201-2:** Mr. Markham to provide to RRS a written response to the posed question.

Action Item 200-4: On agenda today and status is changed to complete.

Action Item 200-3: On agenda today and status is changed to complete.

Action Item 200-2: On agenda today and status is changed to complete.

Action Item 200-1: The NYSRC Executive Committee approved PRR 130 to post for comment. Comments are due May 31st, 2016. Status of this Action Item is changed to Completed.

Action Item 197-8: On-going.

Action Item 195-1: Mr. Hochberg stated that the recent discussions on the subject of ETC were quite extensive and that this Action Item can be retired. Status of this Action Item is changed to Completed.

Action Item 191-2: On-going.

Action Item 141-1: On-going.

Action Item 139-1: On-going.

Action Item 87-5: On-going.

Action Item 83-8: On-going.

3. NYSRC Reliability Rules Development

3.1 Outstanding PRR List

PRR 128 is tabled pending NPCC A-10 revision. Mr. Paszek stated that NPCC TFCP is currently meeting in Montreal and that Document A-10 is on their Agenda. Mr. Paszek also informed the group that TFCP will create a working group (CP-11) that will be working specifically toward revising Document A-10. Mr. Grant stated that this process might be a lengthy one, due to all identified issues such as the definition of “local area”.

The NYSRC Executive Committee approved PRR 130 to post for comment. Comments are due May 31st, 2016.

All other PRRs are on the table for today's discussion.

3.1.1 PRR 131 I.6 Modeling & Data (Dual fuel Generating Unit Testing)

Mr. Clayton informed the group that RRS has received comments from IPPNY toward the latest draft of PRR 131 *I.6 Modeling and Data* (Dual fuel Generating Unit Testing). Mr. Clayton also informed the group that the NYISO will present on the current method of compensation for generators that provided LOG/MOB services in the NYISO Market.

Mr. Clayton stated that RRS will not reach a conclusion at today's meeting (i.e. RRS Meeting Item 201) regarding whether to recommend PRR 131 to NYSRC Executive Committee for approval to post for comment. Mr. Clayton informed the group that RRS is still working on this PRR and would like to get input from all affected stakeholders. This input would then be utilized to modify (if necessary) the drafted PRR 131.

Mr. Johnson stated that the provided IPPNY comments can be viewed as a consensus comments from the Generator Sector. Mr. Johnson stated that the main issue is that the dual fuel service is an absolutely voluntary service, and now due to this proposed Reliability Rule the Generator Owners would have to perform potentially expensive and risky dual fuel tests. In addition, some of the Generator Owners do not burn oil in the capability period due to their Air Emission Limits. Mr. Johnson also stated that under this proposed Reliability Rule the Generator Owners will be asked to burn oil that could be uneconomical to burn. The concern is that without compensation this proposed Reliability Rule is very intrusive into the Generator Owner's business model.

Mr. Clayton acknowledged comments from IPPNY and asked if these were written without knowledge of compensation discussions; Mr. Johnson confirmed. Mr. Clayton informed the group that the NYISO will present on the current method of compensation for generators that provided LOG/MOB services in the NYISO Market, and that this presentation could address some of IPPNY's concerns. Mr. Johnson stated that the 'devil is in the detail' as it relates to compensation and that some of his members may say that is not enough. Mr. Sharp provided a clarification toward the NYISO's presentation: "It is not a proposal for a compensation for PRR 131". The NYISO will review existing compensation mechanism for LOG/MOB services as this might be a likely correlation to future compensation for PRR 131. Mr. Sharp also stated that the NYSRC does not deal with compensation issues and that this issue would be deferred to the NYISO Stakeholder Process (i.e. negotiate Tariff changes, similarly to what was done with the fairly recent Black Start Testing Requirements).

Mr. Fromer stated that his client does not support PRR 131. Mr. Former reiterated Mr. Johnson's concern toward the fact that the dual fuel service is an absolutely voluntary service, and now due to this proposed Reliability Rule the Generator Owners would have to perform potentially expensive and risky dual fuel tests. The concern is that without compensation this proposed Reliability Rule is very intrusive into the Generator Owner's business model. Mr. Fromer emphasized the unfair applicability of PRR 131 to Upstate Generators.

Mr. Fromer also stated that there has to be some logical reason as to why NYSRC would start getting involved in this purely economic issue, and not hide behind 'reliability'. There is no standard, no requirement in any Tariff requiring this kind of service. Mr. Fromer reiterated that, although he does not support this proposed Reliability Rule, if passed why would this PRR 131 extend beyond the areas affected by LOG/MOB requirements? In addition to costs and risks, the State Pollutant Discharge Elimination System (SPDES) permit requires the Generator Owner to perform a stack test (every 5 years) which in itself is a lengthy and expensive test. Due to the fact that upstate resources burn oil very rarely, DEP works with Generators to delay (or waive) the test altogether until the unit actually runs on oil. This PRR 131 would force certain units to perform this very expensive Stack test, as it would force them to run on oil.

Mr. Fromer closed by suggesting that PRR 131 should be very narrowly focused, if needed at all.

Mr. Clayton provided the rationale to why PRR 131 was written; due to 10% failure rate of dual fuel swaps in NYC (year 2015). Mr. D'Andrea asked if these units were expected to swap per LOG/MOB requirements. Mr. Paszek answered: Yes.

Mr. Clayton also stated that PSC Article X requires 'all' units (i.e. running on gas) to have dual fuel capability. Mr. D'Andrea stated that the NYISO and TO should not rely on units that have dual fuel capability (to respond) if they are not part of the LOG/MOB program. Mr. D'Andrea added if there was a new compensation mechanism (a new reserve product) additional resources may respond (and provide this service). Mr. Fromer stated that he was not aware of any requirement within PSC Article X that would require dual fuel capability, and in fact the last two units that were approved do not have such requirement (i.e. CPV Valley and Cricket Valley). **Action Item 201-1:** Mr. Clayton to provide to RRS and Generator Owners a citation from PSC Article X toward the Dual Fuel requirement.

Mr. Fromer posed the following question: Is the unit considered dual fuel if there is no oil in the tank? And if the answer is yes, would this rule require fuel to be on-site? Mr. Clayton answered yes and yes, the rule implies fuel being on-site. Mr. Fromer asked the NYISO to consider this fact in its compensation considerations.

Mr. Shanahan asked if there is an existing definition of dual fuel capability. RRS agreed to work on the dual fuel definition.

Mr. Deay presented the “Minimum Oil Burn Compensation Program” presentation. Question asked (page 2): What were the implementation dates of Reliability Rules G.2 *Loss of Gas Supply (NYC)* and G.3 *Loss of Gas Supply (LI)*. Answer: These two rules predate NYSRC (from NYPP). Question asked (page 4): During “Polar Vortex” event did the NYISO observe any reliability issues as it relates to dual fuel issues? Answer: No issues were observed. Comment (page 5): Mr. D’Andrea stated that TC Ravenswood was involved with section 4.1.9, and suggested to the other Generator Owners to review FERC case ER14-1711. Question asked (page 6): Does the SDX include allowance for equipment maintenance or does it simply address out of market fuel costs? Answer: There are NYISO Tariff provisions that could address other costs. In addition, Ms. Rodriguez stated that LIPA has PPA agreements directly (outside of the NYISO Tariff) with Generator Owners on Long Island.

Mr. Clayton asked if this existing process for LOG/MOB services could be used as a frame work for future compensation under PRR 131. Mr. Pascazio agreed that this could be used as a frame work; with certain software enhancements. Mr. D’Andrea stated that what has been discussed is fuel cost, and that is the easy part. There would be other additional costs, such as: storage, barging costs, labor, on-call pollution control, etc., and these would have to be taken into account as part of the compensation package under PRR 131.

Mr. Johnson reviewed with the group his MEMO (Attachment A) and the 12 questions within. Item 1: RRS agreed to work on the dual fuel definition. Item 2: The answer: “site would equal POI”. Items 3,4,5,6 and 7: These items were addressed in the prior discussion. Item 8: RRS agreed to work on this item. Items 9, 10, and 11: These items were addressed in the prior discussion. Item 8: RRS agreed to work on re-defining the word “immediately”.

Mr. Clayton concluded the discussion stating that two items need to be resolved: (1) the scope of PRR 131 (i.e. applicability to upstate Generators) and (2) the compensation issue.

3.1.2 PRR 132 I.4, Transmission Data (Clarification of Material Error)

Mr. Clayton provided a short description of this PRR and what changes have been applied since the last RRS meeting. Mr. Clayton specifically pointed out R1.7 and the use of “reliability violation”, where it has been suggested to replace that phrase with “does not meet reliability criteria”. The group decided to keep the existing wording.

Mr. Adamson asked a clarifying question toward R1.4 “*Require Market Participants and Developers to report to the NYISO data errors and corrections or Suspect Data that they may have identified [...]*”; why would Market Participants report to the NYISO their Suspect Data without submitting corrected data? Mr. Paszek responded stating that, for example, Con Edison may observe Suspect Data within its system model on equipment that is not owned by Con Edison, and thus Con Edison will report its findings to the NYISO (so that the NYISO can approach the owner of the equipment in question).

Mr. Shanahan asked about the use of the term “reasonableness” in R1.3; is it an appropriate term? Mr. Clayton responded that all data has a range and that the NYISO already has established guidelines for all equipment being modeled.

Action Item 201-3: Mr. Adamson to add Compliance Elements to PRR 132 I.4, *Transmission Data*.

3.2. Discussion Items

3.2.1 NYSRC & NERC System Restoration Training Requirements

Mr. Clayton introduced this Agenda item noting that the provided material was developed by the NYISO with Transmission Owners’ input. The comparison shows that, in regards to System Restoration Training, NERC Standards are equal or more stringent than NYSRC Reliability Rules. Mr. Clayton then posed a question: Do we need to have NYSRC System Restoration Training Reliability Rules?

Mr. Sipperly provided a detail overview of the provided documentation noting that the comparison took into account NERC Standards EOP-005-2 *System Restoration from Blackstart Resources* EOP-006-2 *System Restoration Coordination* and NYSRC Reliability Rules F.1 and F.2.

Mr. Paszek asked if there is an instance (at least one) where the NYSRC Reliability Rules are more stringent than the NERC Standards. Mr. Sipperly responded that there is no such instance.

Mr. Adamson stated that System Restoration is a very important aspect of the NYSRC Reliability Rules. To omit reference to System Training Requirements, might suggest that NYSRC does not believe that training is important to system restoration. Mr. Clayton stated that NERC Standards have very detailed System Training Requirements. Mr. Grand also added that due to the fact that all NYCA Transmission Owners will become NERC registered Transmission Operators (TOP), the NERC Standards EOP-005-2 and EOP-006-2 will be applicable to NYCA Transmission Owners. Mr. Clayton suggested that NYSRC Reliability Rules could simply have a section toward requiring System Restoration Plans, with an introduction section that would state (among other things) that System Restoration Training is covered by NERC Standards.

Mr. Paszek questioned if the NYSRC is in compliance with its Charter due to the fact that, as of today, the NYSRC Reliability Rules are less stringent than NERC Standards. Mr. Clayton responded that Yes, technically the NYSRC is not compliant but the NYSRC RRS is working on addressing this issue. In addition, from a reliability perspective nothing is lost as NERC Standards trump the NYSRC Reliability Rules.

Mr. Clayton brought into the discussion Agenda Item 3.2.3. Mr. Paszek discussed a comparison of the NERC, NPCC and NYSRC Blackstart Testing Requirements. Mr. Paszek stated that NERC EOP-005-2 and NPCC Directory 8 require (among other things) the ability to energize a [dead] bus and the ability to operate in a stable condition [idle] while isolated from the power system for a minimum of 10 minutes. The NYSRC Reliability Rules do not have such requirements. There is an apparent inconsistency that needs to be addressed as well.

Mr. Fromer asked if these new Black Start requirements imposed on the Generator Owners were changed or are changing, and were the Generator Owners notified. Mr. Sipperly stated that if the Generator Owner is registered as a Generator Operator, the Generator Owner is aware of these requirements.

Action Item 201-4: Mr. Adamson to check the provided comparison documentation of NERC Standards, NPCC Directory 8 and NYSRC Reliability Rules as it relates to System Restoration Training and Blackstart Testing Requirements; to see if there are no omissions (i.e. Requirements that should be left in the NYSRC Reliability Rules).

3.2.2 RRCM Section B and C Introductions

Mr. Adamson provided a short description of the proposed changes applied to the NYSRC Reliability Rules and Compliance Introduction sections Section B; Transmission Planning and Section C: Transmission Operations, per comments received at the last NYSRC RRS meeting. Mr. Clayton asked if there are any comments and with none received Mr. Clayton asked Mr. Adamson to add these revisions to the next version of the NYSRC RR & C Manual. **Action Item 201-7:** Introductions to Section B *Transmission Planning* and Section C *Transmission Operation*.

3.2.3 NERC, NPCC and NYSRC Comparison of Black Start Testing Requirements

See Discussion under Agenda Item 3.2.1.

3.3 Bucket List

Item 7 together with item 8, with adaptation of PRR 130, will be retired.

Action Item 201-5: Review / discuss NERC Standard / NYSRC Reliability Rules comparison documentation as it relates to the Solar Magnetic Disturbance Requirements.

The status of Item 14 changed to completed. The phrase that was proposed to be removed from the NYSRC Reliability Rules (Section C.1 *Establishing Operating Transfer Capabilities*): “to a level that will not result in the loss or separation of a major portion of the system” will stay as part of the NYSRC Reliability Rules.

4. NPCC Directories

There is nothing new to report.

5. NERC SARS/Organization Standards

5.1 NERC Standard Tracking

There is nothing new to report.

6. Additional Agenda Items

6.1 REV potential impact on NYS BPS reliability

Mr. Clayton stated that at this point RRS should hold to a statement that would encompass the following thought: “Whatever the REV does it shall not adversely impact Transmission System Reliability”.

Mr. Clayton informed that group that at the NYSRC Executive Committee the NYISO reported that the NYISO is performing a study toward impact of Distributed Generation on the Bulk Power System. **Action Item 201-6:** NYISO to provide a status discussion toward REV studies (i.e. Behind the Meter and Clean Energy Standards) at the next RRS meeting.

7. Reports

7.1 NYSRC EC Meeting Report

There is nothing additional to report.

7.2 NYSRC ICS Meeting Report

The ICS is developing models toward 2017 IRM study. The NYISO is working with GE toward a new methodology for Locational Capacity Requirements (LCR) based on economics while maintaining reliability criteria. The NYISO must be consistent with the NYSRC Reliability Rules; it is an issue for ongoing discussion.

Meeting ended at 1PM.

Next Meeting #202

Thursday, June 2, 2016; 9:30 am @ NYSERDA, 17 Columbia Circle, Albany

Attachment A:
IPPNY Comments (PRR 131 Dual Fuel Generating Testing (PRR 131))

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To: Roger Clayton, Chairman, Reliability Rules Subcommittee (RRS)

From: David B. Johnson

Date: April 29, 2016

Re: PRR 131 Dual Fuel Generating Testing (PRR 131)

The generator sector, represented by Independent Power Producers of New York, Inc. (“IPPNY”), has a number of questions and concerns regarding PRR 131. According to the proposed rule, the testing requirement is intended to address a perceived failure by dual fuel generators to successfully switch fuels from natural gas to liquid fuel, “which could jeopardize the reliability of the NYS Bulk Power System that could result in the loss of electric load.” The proposed rule would apply to all generating units with dual fuel capability operating in the New York Control Area (“NYCA”).

The rule is unnecessary and unduly burdensome, especially for generating units that have no obligation to install dual fuel capability and receive no compensation from the NYISO for installing such capability or testing fuel burning or switching capability. As dual fuel is not a reimbursable reliability product, it is inappropriate for the NYISO or transmission owners to dictate generator maintenance practices or impose penalties.

Generators that voluntarily install dual fuel capability do so to take advantage of high energy prices when natural gas is unavailable or more expensive than fuel oil. This provides them significant incentive to be able to make the switch between fuels. Also, those generators that take interruptible gas service from their local distribution corporations are already incented to successfully switch to oil because they face penalties for burning gas when they receive operational flow orders.

All dual fuel generators are subject to stringent limitations on burning oil under the Environmental Protection Agency’s Mercury and Air Toxics Standards for Power Plants (“MATS”). MATS limits a unit’s oil burning to an average 10% or more of total fuel consumption over a three-year period or 15% or more of total fuel consumption in any one year. A unit with a low capacity factor could be required to burn gas uneconomically to meet this permit condition. Imposing an oil burning testing requirement every capability period could be very costly to a generator.

Imposition of burdensome and expensive testing requirements that penalize generating units and expose them to environmental permit risk could discourage the installation of dual fuel capability and result in some owners deciding to remove the dual fuel capability from their units. This is especially the case when the NYISO market does not provide any compensation to generators for their ability to switch fuels.

Further, there is no evidence that the vast majority of dual fuel generating units in the NYCA are having difficulty switching fuels. While certain combined cycle gas turbine generating units in New York City may have tripped offline during a switching event, that is no justification to impose a testing requirement on all units.

IPPNY has the following additional concerns and questions:

1. The rule applies broadly to units “with dual fuel capabilities.” Some generating units co-fire coal, gas and oil. Is the rule intended to apply to such units?
2. Does the testing requirement apply to all units with a rating of greater than or equal to 75 MVA or to multiple units with a rating of less than 75 MVA, but in the aggregate greater than or equal to 75 MVA, that are located at the same site? Specifically, what is the definition of “site”? Is it location on the same parcel? Is it injection at the same point of interconnection? For example, the Gowanus Generating Station is comprised of 32 GE Frame 5 units, each with a gross nameplate rating of ~ 25 MVA. The site total obviously exceeds 75 MVA. Is the rule applicable to this site?
3. Dual fuel is not a compensable service under the NYISO tariff. The tariff only provides for the recovery of certain costs in the context of the “minimum oil burn rule.” Does the RRS/NYSRC support the NYISO providing compensation to generators that provide this reliability service?
4. Consumption of oil as compared to natural gas produces notably higher air emissions. This testing requirement will increase air emissions and the costs to generation owners to comply with air regulations. Has the RRS considered this ramification?
5. The proposed language appears to require an on-line transfer. Many air permits do not contain a provision to allow for excess emissions during fuel transfers. Swapping fuels on-line causes excess emissions beyond permit limits. If a unit with such a restrictive permit is required to perform a fuel switch on-line, it will be in violation of its permit. The switch can be performed as part of a shutdown sequence but this means that a generator owner will be forced to take their unit off-line when market conditions may not be favorable. Many generator owners maintain their liquid fuel system in a ready to start but not primed condition. This eliminates the coking in fuel lines adjacent to the engine, which is the primary reason for unsuccessful transfers. In this situation the generator owner would switch by coming off-line (in the face of no fuel gas), prime the liquid fuel lines and then restart. This process has a much better potential for success than an on-line transfer with coked lines. If the goal is reliability on liquid fuel, the rule should allow for this alternate process.
6. Auto-swapping to liquid fuel poses a unit trip risk to combined cycle gas turbine units. If a unit trips during a test, how would the owners be compensated for the financial and operational implications (*e.g.*, not meeting a DAM schedule, increased EFORd, *etc.*)?

7. How will the costs of a test be addressed? How will the costs of “remedial actions” necessary after a failed test be addressed?
8. In R2, what constitutes a “successful test”? This is very important to generators because the ability to switch fuels and associated testing procedures will vary depending on technology. Not all tests have the same risk. A testing requirement that obligated a High Load/Full Load would be inappropriate because it adds significant risk to the entire plant as well as potential down time. What are the implications of the addition of the words “complete a successfully (sic) test” in R2, as applied to Steam Electric units?
9. In M3, what constitutes keeping the NYISO informed of progress of remedial actions? The GADS reporting system treats all generators greater than 50 MW equally regardless of fuel type. The existing procedures for NYISO notification should suffice. For instance, if a unit tests on ultra-low-sulfur diesel and trips, an out-of-merit notice will be issued and a derate logged while the unit is unavailable due to the liquid fuel trip. That would constitute immediate notice of fuel swap failure. A simple email to genplan@nyiso would cover notification of whatever repairs are needed as well as an estimated timeline to restore liquid fuel system to available status and retest.
10. Does the RRS intend that the rule apply to units that previously installed oil burning capability but have temporarily disabled that capability and removed oil from storage tanks?
11. For units that have such oil burning capability but have not been economically dispatched in years on such fuel, who will compensate such generator for the costs of performing a stack test if having to perform this new test would, in itself, also trigger the need to perform a stack test?
12. “Immediately” should be removed from R4.1. As the generator is not being reimbursed for testing and maintaining dual fuel capability, the generator should be allowed to address remedial actions at the next planned shutdown.