

Request to Develop or Modify Reliability Rules and Requirements (NYSRC Policy No. 1-7)

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Item	Information
1. PRR No. & Title of Reliability Rule or Requirement change	PRR 131 <u>Reliability Rule 1.6</u> : Dual Fuel <u>Generating Unit</u> Testing
2. Rule Change Requester Information	
Name	Reliability Rules Subcommittee (RRS)
Organization	
3. New rule or revision to existing rule?	New
4. Need for rule change, including advantages and disadvantages	<p>Con Edison and the NYISO, observed a significant failure rate of fuel switching events which could jeopardize the reliability of the NYS Bulk Power System that could result in the loss of electric load. Therefore, new requirements need to be added in order to establish appropriate periodic testing requirements, for both new and old <u>generating</u> units, that have dual fuel capability. This testing will increase the likelihood of successful switching by identifying and addressing the cause of failure.</p> <p>The reliability of the NYS Bulk Power System relies heavily on the performance of dual fuel capable units to either 1) burn both fuels simultaneously prior to experiencing low system gas pressure or a loss of gas condition (applicable to steam electric units) or 2) automatically switch fuel from natural gas to liquid fuel whenever experiencing low system gas pressure or a loss of gas condition (applicable to simple cycle / combined cycle units).</p>
5. Related NYSRC rules	G.2 & <u>G.3</u> Loss of Gas Supply —New York City / G.3 Loss of Gas Supply — Long Island
6. Section A – Reliability Rule Elements	
1. Reliability Rule	<u>I.6</u> <u>The Generator Owner of a dual fuel unit shall test the unit's dual fuel capability in each <u>Capability Period</u>.</u> <u>The dual fuel capability of all NYCPA generating units with dual fuel capability shall be tested.</u>
2. Associated NERC & NPCC Standards and Criteria	None
3. Applicability	NYISO, Generator Owners
7. Section B – Requirements	
Requirements	R1. The NYISO shall document, maintain and publish a current list of <u>all NYCPA</u> dual fuel <u>generating</u> units.

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	<p>R2. The NYISO shall have procedures requiring all Generator Owners of dual fuel <u>generating</u> units, that have generation resources connected at one site with an aggregate capacity of more than or equal to 75 MVA (gross nameplate rating), to test the unit's dual fuel capability in each <u>Capability Period</u>, as follows:</p> <p><u>Combined Cycle units:</u> Each Combined Cycle unit shall complete a successful test of the automatic swap to a liquid fuel during each <i>Capability Period</i>.</p> <p>The requirement for a test can be substituted by a real-time automatic fuel swap, if the most recent fuel swap was successful and the latter occurred during the current <i>Capability Period</i>.</p> <p><u>Steam Electric units:</u> Each Steam Electric unit shall successfully test that it can maintain a minimum level of oil as part of the unit fuel burn mixture for each <i>Capability Period</i>.</p> <p>The requirement for a test can be substituted by a real-time burn of fuel mixture, if the latter occurred during the current <i>Capability Period</i>.</p> <p>R2.1. The NYISO procedure shall identify the appropriate parameters for a test to be considered successful.</p> <p>R3. Each Generator Owner of a dual fuel unit shall develop and implement appropriate test procedures in accordance with Requirement R2 to ensure those dual fuel units are able to perform their intended functions. This test procedure shall be shared with the NYISO.</p> <p>R4. Each Generator Owner of a dual fuel unit shall test its dual fuel capability per Requirement R3.</p> <p>R4.1 If a dual fuel test is not successful, the Generator Owner shall identify the causes of the failure and immediately undertake repairs that are necessary to address the failure and keep the NYISO informed as to the progress of its dual fuel unit repairs.</p>
<p>8. Section C – Compliance Elements</p>	
<p>1. Measures</p>	<p>M1. The NYISO documented, maintained and published a current list of dual fuel <u>generating</u> units <u>in accordance with R1</u>. <u>The NYISO also</u></p> <p>M2. The NYISO had in place procedures, <u>in accordance with R2</u>, requiring all Generator Owners of dual fuel units, that have generation resources connected at</p>

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	<p>one site with an aggregate capacity of more than or equal to 75 MVA (gross nameplate rating), to test their dual fuel capability, including identification of parameters for a test to be considered successful.</p> <p>M23. Each Generator Owner of a dual fuel <u>generating</u> unit developed and implemented appropriate test procedures in accordance with Requirement R3.</p> <p>M34. Each Generator Owner of a dual fuel <u>generating</u> unit tested its dual fuel capability per Requirement R34. In addition, If a dual fuel test is was not successful; the Generator Owner identified the causes of the failure and immediately undertook repairs that were necessary to address the failure and kept the NYISO informed as to progress of its dual fuel unit repairs.</p>
<p>2. Levels of Non-Compliance</p>	<p>For Measure 1:</p> <p>Level 1: Not applicable.</p> <p>Level 2: NYISO documentation in accordance with Requirement R1 was provided when requested, but was incomplete in one or more areas.</p> <p>OR</p> <p><u>NYISO procedures requiring all Generator Owners of dual fuel units to test their dual fuel capability, including identification of parameters for a test to be considered successful have been prepared, but were incomplete in one or more areas.</u></p> <p>Level 3: Not applicable.</p> <p>Level 4: The required NYISO documentation in accordance with Requirement R1 was not provided when requested.</p> <p>OR</p> <p><u>NYISO procedures requiring all Generator Owners of dual fuel units to test their dual fuel capability, including identification of parameters for a test to be considered successful have not been prepared.</u></p> <p>▲</p> <p>For Measure 2:</p> <p>Level 1: Not applicable.</p> <p>Level 2: NYISO procedures requiring all Generator Owners of dual fuel units to test their dual fuel capability, including identification of parameters for a test to be considered successful have been prepared, but were incomplete in one or more areas.</p> <p>Level 3: Not applicable.</p> <p>Level 4: NYISO procedures requiring all Generator Owners of dual fuel units to test their dual fuel capability, including identification of parameters for a test to be considered successful have not been prepared.</p>

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	<p>For Measure 23:</p> <p>Level 1: Not applicable.</p> <p>Level 2: The NYISO certified that the required test procedure that was provided was complete, but was not submitted to the NYISO - by one or more Generator Owner - by the specified time by one or more dual fuel units.</p> <p>Level 3: The NYISO certified that the required test procedure was submitted to the NYISO - by one or more Generator Owner - on time, but was incomplete in one or more areas for one or more dual fuel units.</p> <p>Level 4: The NYISO certified that the required test procedure from one or more dual fuel units was not submitted to the NYISO.</p> <p>For Measure 34:</p> <p>Level 1: Not applicable.</p> <p>Level 2: Not applicable.</p> <p>Level 3: Not applicable.</p> <p>Level 4: The NYISO certified that the required dual fuel test (1) has not been performed, or (2) the required test has been unsuccessfully performed and the Generator Owner is not progressing with unit repairs.</p>
3. Compliance Monitoring Process (See Policy 4):	
3.1 Compliance Monitoring Responsibility	<ul style="list-style-type: none"> • M1: RCMS • M2: RCMS • M23: NYISO/RCMS • M34: NYISO/RCMS
3.2 Reporting Frequency	<ul style="list-style-type: none"> • M1: In accordance with Compliance Program • M2: In accordance with Compliance Program • M23: Annually • M34: Annually
3.3 Compliance Reporting Requirements	<ul style="list-style-type: none"> • M1: NYISO Self-Certification • M2: NYISO Self-Certification • M23: NYISO Certification of dual fuel unit compliance. • M34: NYISO Certification of dual fuel unit compliance.
9. Implementation Plan	The NYISO shall prepare ^{revise} appropriate procedures <u>in accordance with R1 and R2</u> within 90 days of Executive Committee approval of PRR 131.
10. Comments	
11. Date Rule Adopted	
12. PRR Revision Dates	3/47/16

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