

## Mapping Document

### Project 2021-02 Modifications to VAR-002-4.1

Standard: VAR-002-5		
Requirement in Approved Standard	Translation to New Standard or Other Action	Description and Change Justification
<p>VAR-002-4.1, Requirement R1</p> <p>The Generator Operator shall operate each generator connected to the interconnected transmission system in the automatic voltage control mode (with its automatic voltage regulator (AVR) in service and controlling voltage) or in a different control mode as instructed by the Transmission Operator unless: 1) the generator is exempted by the Transmission Operator, or 2) the Generator Operator has notified the Transmission Operator of one of the following: <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i></p> <ul style="list-style-type: none"> <li>• That the generator is being operated in start-up,1 shutdown,2 or testing mode pursuant to a Real-time communication or a procedure that was previously provided to the Transmission Operator; or</li> <li>• That the generator is not being operated in automatic voltage control mode or in the control mode that was instructed by the Transmission</li> </ul>	<p>VAR-002-5, Requirement R1</p> <p>The Generator Operator shall operate each <del>generator or dispersed power producing resource</del><u>applicable Facility</u> connected to the interconnected transmission system in the automatic voltage control mode (with its automatic voltage regulator (AVR) or volt/VAR controller(s) in service and controlling voltage) or in a different control mode as instructed by the Transmission Operator unless: 1) <del>the generator or dispersed power producing resources</del><u>applicable Facility are-is</u> exempted by the Transmission Operator, or 2) the Generator Operator has notified the Transmission Operator of one of the following: <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i></p> <ul style="list-style-type: none"> <li>• That <del>the generator or dispersed power producing resource</del><u>applicable Facility</u> is being operated in start- up, shutdown, or testing mode pursuant to a Real-time communication</li> </ul>	<p>Requirement R1 has been maintained due to the importance of Generator Operator running a unit with its automatic voltage regulator (AVR) in service and in either voltage controlling mode, or the mode instructed by the Transmission Operator. The Project 2021-02 SDT proposed minor changes to bring attention to dispersed power producing resource as defined by the Bulk Electric System definition in the NERC Glossary of Terms for inclusion to Generation voltage or Reactive Power control resources and difference in type of voltage control such as a volt/VAR controller for aggregated Generation system control at the Transmission Point of Interconnection or as stated in the Transmission Operator voltage or Reactive Power instruction.</p> <p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>

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Operator for a reason other than start-up, shutdown, or testing	<p>or a procedure that was previously provided to the Transmission Operator; or</p> <ul style="list-style-type: none"> <li>That the <del>generator or dispersed power producing resource</del><u>applicable Facility</u> is not being operated in automatic voltage control mode or in the control mode that was instructed by the Transmission Operator for a reason other than start-up, shutdown, or testing.</li> </ul>	
<p><u>VAR-002-4.1, Measure M1</u></p> <p><u>The Generator Operator shall have evidence to show that it notified its associated Transmission Operator any time it failed to operate a generator in the automatic voltage control mode or in a different control mode as specified in Requirement R1. If a generator is being started up or shut down with the automatic voltage control off, or is being tested, and no notification of the AVR status is made to the Transmission Operator, the Generator Operator will have evidence that it notified the Transmission Operator of its procedure for placing the unit into automatic voltage control mode as required in Requirement R1. Such evidence may include, but is not limited to, dated evidence of transmittal of the procedure such as an electronic message or a transmittal</u></p>	<p><u>VAR-002-5, Measure M1</u></p> <p><u>The Generator Operator shall have evidence to show that it notified its associated Transmission Operator any time it failed to operate an applicable Facility in the automatic voltage control mode or in a different control mode as specified in Requirement R1. If an applicable Facility is being started up or shut down with the automatic voltage control off, or is being tested, and no notification of the AVR status is made to the Transmission Operator, the Generator Operator will have evidence that it notified the Transmission Operator of its procedure for placing the unit into automatic voltage control mode as required in Requirement R1. Such evidence may include, but is not limited to, dated evidence of</u></p>	<p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>

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<p><u>letter with the procedure included or attached. If a generator is exempted, the Generator Operator shall also have evidence that the generator is exempted from being in automatic voltage control mode (with its AVR in service and controlling voltage).</u></p>	<p><u>transmittal of the procedure such as an electronic message or a transmittal letter with the procedure included or attached. If an applicable Facility is exempted from automatic voltage control mode (with its AVR or volt/VAR controller(s) in service and controlling voltage), the Generator Operator will maintain evidence of an exception.</u></p>	
<p>VAR-002-4.1, Requirement R2</p> <p>Unless exempted by the Transmission Operator, each Generator Operator shall maintain the generator voltage or Reactive Power schedule<sup>3</sup> (within each generating Facility’s capabilities<sup>4</sup>) provided by the Transmission Operator, or otherwise shall meet the conditions of notification for deviations from the voltage or Reactive Power schedule provided by the Transmission Operator. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i></p>	<p>VAR-002-5, Requirement R2</p> <p>Unless exempted by the Transmission Operator, each Generator Operator shall maintain the <del>generator or dispersed power producing resource</del><u>applicable Facility</u> voltage or Reactive Power schedule<sup>3</sup> (within each generating Facility’s capabilities<sup>4</sup>) provided by the Transmission Operator, or otherwise shall meet the conditions of notification for deviations from the voltage or Reactive Power schedule provided by the Transmission Operator. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i></p>	<p>Requirement R2 has been maintained due to the importance of Generator Operator maintaining voltage or Reactive Power schedule within each generating Facility capabilities. The Project 2021-02 SDT proposed minor changes to bring attention to dispersed power producing resource as defined by the Bulk Electric System definition in the NERC Glossary of Terms for inclusion to Generation voltage or Reactive Power control resources and difference in type of voltage control as a volt/VAR controller for aggregated Generation system control at the Transmission Point of Interconnection or as stated in the Transmission Operator voltage or Reactive Power schedule instruction.</p> <p>Typical dispersed power producing resources have a site automatic voltage regulator (AVR) or</p>

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		<p>volt/VAR controller(s) that coordinates the voltage of all generators to a common regulation point. If this site AVR or volt/VAR controller(s) fails each generator will typically either continue to regulate at the last known set point or revert to unity power factor. The Project 2021-02 SDT proposes adding language to provide Transmission Operator notification <del>of limited control capability if no other control capability and without violation of Requirement R3.</del></p> <p>The Project 2021-02 SDT agreed with the Project 2016-EPR-02 recommendations as stated in background section. The EPR final report provides additional rationale and background to the recommendations.</p> <p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>
<p>VAR-002-4.1, Requirement R2, Part 2.1</p> <p>When a generator’s AVR is out of service or the generator does not have an AVR, the Generator Operator shall use an alternative method to control the generator reactive output to meet the</p>	<p>VAR-002-5, Requirement R2, Part 2.1</p> <p>When a generator’s AVR or volt/VAR controller(s) is out of service or the generator does not have an AVR, the Generator Operator shall use an alternative method to control the generator reactive output to meet the voltage</p>	<p>Requirement R2 has been maintained due to the importance of Generator Operator maintaining voltage or Reactive Power schedule within each generating Facility capabilities. The Project 2021-02 SDT proposed minor changes to bring attention to dispersed power producing resource as defined by the Bulk Electric System</p>

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voltage or Reactive Power schedule provided by the Transmission Operator.	or Reactive Power schedule provided by the Transmission Operator or <u>if no other method of control is available, notify the Transmission Operator as soon as becoming aware of the condition</u> <del>provide an explanation if control capability is limited.</del>	<p>definition in the NERC Glossary of Terms for inclusion to Generation voltage or Reactive Power control resources and difference in type of voltage control as a volt/VAR controller for aggregated Generation system control at the Transmission Point of Interconnection or as stated in the Transmission Operator voltage or Reactive Power schedule instruction.</p> <p>Typical dispersed power producing resources have a site automatic voltage regulator (AVR) or volt/VAR controller(s) that coordinates the voltage of all generators to a common regulation point. If this site AVR or volt/VAR controller(s) fails each generator will typically either continue to regulate at the last known set point or revert to unity power factor. The Project 2021-02 SDT proposes adding language to provide Transmission Operator notification <del>of limited control capability if no other control capability and without violation of Requirement R3.</del></p> <p>The Project 2021-02 SDT agreed with the Project 2016-EPR-02 recommendations as stated in background section. The EPR final</p>

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		report provides additional rationale and background to the recommendations.
<p>VAR-002-4.1, Requirement R2, Part 2.3</p> <p>Generator Operators that do not monitor the voltage at the location specified in their voltage schedule shall have a methodology for converting the scheduled voltage specified by the Transmission Operator to the voltage point being monitored by the Generator Operator.</p>	<p>VAR-002-5, Requirement R2, Part 2.3</p> <p>Generator Operators that do not monitor the voltage at the location specified in their voltage schedule shall have a methodology for converting the scheduled voltage to the voltage point being monitored by the Generator Operator.</p>	<p>Requirement R2 has been maintained due to the importance of Generator Operator maintaining voltage or Reactive Power schedule within each generating Facility capabilities. The Project 2021-02 SDT proposed minor changes to bring attention to dispersed power producing resource as defined by the Bulk Electric System definition in the NERC Glossary of Terms for inclusion to Generation voltage or Reactive Power control resources and difference in type of voltage control as a volt/VAR controller for aggregated Generation system control at the Transmission Point of Interconnection or as stated in the Transmission Operator voltage or Reactive Power schedule instruction.</p> <p>Typical dispersed power producing resources have a site automatic voltage regulator (AVR) or volt/VAR controller(s) that coordinates the voltage of all generators to a common regulation point. If this site AVR or volt/VAR controller(s) fails each generator will typically either continue to regulate at the last known set point or revert to unity power factor. The Project 2021-02 SDT proposes adding language</p>

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		<p>to provide Transmission Operator notification of limited control capability.</p> <p><u>Requirement R2, Part R2.1 was revised for the additional clarity needed for alternative control. For Requirement R2, Part R2.3 there needs to be a conversion methodology to determine how to adjust voltage to maintain schedule at monitoring point.</u></p> <p>The Project 2021-02 SDT agreed with the Project 2016-EPR-02 recommendations as stated in background section. The EPR final report provides additional rationale and background to the recommendations.</p>
<p><u>VAR-002-4.1, Measure M2</u></p> <p><u>In order to identify when a generator is deviating from its schedule, the Generator Operator will monitor voltage based on existing equipment at its Facility. The Generator Operator shall have evidence to show that the generator maintained the voltage or Reactive Power schedule provided by the Transmission Operator, or shall have evidence of meeting the conditions of notification for deviations from the voltage or Reactive Power schedule provided by the Transmission Operator.</u></p>	<p><u>VAR-002-5, Measure M2</u></p> <p><u>In order to identify when an applicable Facility is deviating from its schedule, the Generator Operator will monitor voltage based on existing equipment at its Facility. The Generator Operator will have evidence to show that the applicable Facility maintained the voltage or Reactive Power schedule provided by the Transmission Operator or will have evidence of meeting the conditions of notification for deviations from the voltage or Reactive Power</u></p>	<p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>

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<p><u>Evidence may include, but is not limited to, operator logs, SCADA data, phone logs, and any other notifications that would alert the Transmission Operator or otherwise demonstrate that the Generator Operator complied with the Transmission Operator’s instructions for addressing deviations from the voltage or Reactive Power schedule.</u></p> <p><u>For Part 2.1, when a generator’s AVR is out of service or the generator does not have an AVR, a Generator Operator shall have evidence to show an alternative method was used to control the generator reactive output to meet the voltage or Reactive Power schedule provided by the Transmission Operator.</u></p> <p><u>For Part 2.2, the Generator Operator shall have evidence that it complied with the Transmission Operator’s instructions to modify its voltage or provided an explanation to the Transmission Operator of why the Generator Operator was unable to comply with the instruction. Evidence may include, but is not limited to, operator logs, SCADA data, and phone logs.</u></p> <p><u>For Part 2.3, for Generator Operators that do not monitor the voltage at the location specified on</u></p>	<p><u>schedule provided by the Transmission Operator.</u></p> <p><u>Evidence may include, but is not limited to, operator logs, SCADA data, phone logs, and any other notifications that would alert the Transmission Operator or otherwise demonstrate that the Generator Operator complied with the Transmission Operator’s instructions for addressing deviations from the voltage or Reactive Power schedule.</u></p> <p><u>For Part 2.1, when an applicable Facility’s AVR or volt/VAR controller(s) is out of service or the applicable Facility does not have an AVR, a Generator Operator shall have evidence to show an alternative method was used to control the generator reactive output to meet the voltage or Reactive Power schedule provided by the Transmission Operator or evidence of notification to the Transmission Operator if no other method of control is available.</u></p> <p><u>For Part 2.2, the Generator Operator will have evidence that it complied with the Transmission Operator’s instructions to modify its voltage or provided an explanation to the Transmission Operator of why the Generator Operator was</u></p>	



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<p><u>the voltage schedule, the Generator Operator shall demonstrate the methodology for converting the scheduled voltage specified by the Transmission Operator to the voltage point being monitored by the Generator Operator.</u></p>	<p><u>unable to comply with the instruction. Evidence may include, but is not limited to, operator logs, SCADA data, and phone logs.</u></p> <p><u>For Part 2.3, for Generator Operators that do not monitor the voltage at the location specified on the voltage schedule, the Generator Operator will demonstrate the methodology for converting the scheduled voltage to the voltage point being monitored by the Generator Operator.</u></p>	
<p>VAR-002-4.1, Requirement R3</p> <p>Each Generator Operator shall notify its associated Transmission Operator of a status change on the AVR, power system stabilizer, or alternative voltage controlling device within 30 minutes of the change. If the status has been restored within 30 minutes of such change, then the Generator Operator is not required to notify the Transmission Operator of the status change. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i></p>	<p>VAR-002-5, Requirement R3</p> <p>Each Generator Operator shall notify, in a mutually-agreeable <del>format</del><u>criteria</u>, its associated Transmission Operator of a status or functionality change of applicable AVR, volt/VAR controller(s), power system stabilizer, or alternative voltage controlling device which degrades<del>or</del> restores <u>from degradation</u> its ability to automatically control voltage. Status or functionality change notifications shall be made within 30<del>of the change</del><u>minutes of becoming aware of a change</u>. If the status has been restored within 30 minutes<del>-of such change</del><u>of becoming aware of the change</u>, then the Generator Operator is not required to notify the Transmission Operator of the status change.</p>	<p>Requirement R3 has been modified to clarify the intent of the requirement for the Generator Operator to communicate to the Transmission Operator in a mutually-agreed <del>format</del><u>criteria</u> like other NERC Standards, e.g., TOP-003, for required notifications for when an AVR or volt/VAR controller(s) meets the notification criteria. The Project 2021-02 SDT proposes additional clarity of status or functionality changes are those that impact the ability to control voltage which degrades or restores from degradation and to exclude notifications that have change in status due to normal characteristics of running the Generation resource or do not meet the Transmission Operator threshold for reporting.</p>

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	<i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i>	<p>The Generator Operator is required to notify the Transmission Operator of power system stabilizer (PSS) unavailability. The Project 2021-02 SDT agreed that the operational requirements for initial state of PSS (on/off) clarity was needed for expectations on startup, shutdown, or testing mode. To clarify notification for PSS status change, the Project 2021-02 SDT proposes to add language of functionality changes that degrade or restore its ability to automatically control voltage.</p> <p>The SDT agreed with the Project 2014-01 VAR-002 SDT as to reasoning for not excluding the individual dispersed Generator for reporting change of status or functionality of volt/VAR control as shown in the background section. This determination for system impacts should have Transmission Operator determine in notification criteria taking facility configuration and type of control into consideration.</p>
<p><u>VAR-002-4.1, Measure M3</u></p> <p><u>The Generator Operator shall have evidence it notified its associated Transmission Operator</u></p>	<p><u>VAR-002-5, Measure M3</u></p> <p><u>The Generator Operator shall have evidence it notified its associated Transmission Operator</u></p>	<p><u>The intent to degrade and restore from degradation is meant to address the site</u></p>

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<p><u>within 30 minutes of any status change identified in Requirement R3. If the status has been restored within the first 30 minutes, no notification is necessary.</u></p>	<p><u>within 30 minutes of a change identified in Requirement R3 and evidence of the mutually-agreeable criteria such as any of the following: emails, voltage schedule documentation, or reliability data specification. If the status or functionality change has been restored within the first 30 minutes of the change, no notification is necessary.</u></p>	<p><u>controllers that are partially degraded the ability to automatically control voltage to follow instruction or facility degraded reactive capability to TOP for assessing regional system reactive resource capability impacts.</u></p>
<p>VAR-002-4.1, Requirement R4</p> <p>Each Generator Operator shall notify its associated Transmission Operator within 30 minutes of becoming aware of a change in reactive capability due to factors other than a status change described in Requirement R3. If the capability has been restored within 30 minutes of the Generator Operator becoming aware of such change, then the Generator Operator is not required to notify the Transmission Operator of the change in reactive capability. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i></p> <ul style="list-style-type: none"> <li>Reporting of status or capability changes as stated in Requirement R4 is not applicable to the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition.</li> </ul>	<p>VAR-002-5, Requirement R4</p> <p>Each Generator Operator shall notify, in a mutually-agreeable <del>format</del>criteria, its associated Transmission Operator within 30 minutes of becoming aware of a change in reactive capability that <del>degrades or restores</del> <u>from degradation and</u> exceeds the threshold for notification due to factors other than specified in Requirement R3. If the capability has been restored within 30 minutes of the Generator Operator becoming aware of such change, then the Generator Operator is not required to notify the Transmission Operator of the change in reactive capability. <i>[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]</i></p>	<p>Requirement R4 has been modified to clarify the intent of Requirement for Generator Operator to communicate to the Transmission Operator in a mutually agreed <del>format</del>criteria like other NERC Standards, e.g., TOP-003, for required notifications when Generator controlled reactive resources change in <del>real</del>Real-time operations and impact the output of the generation facility other than AVR or volt/VAR controller(s) specified in R3. The Project 2021-02 SDT proposes additional clarity of capability changes are those that meet the threshold for notification from the Transmission Operator that Transmission would deem to have an impact on assessing Generation reactive resources in <del>real</del>Real-time as required by the Transmission Operator in VAR-001 R2. The Project 2021-02 SDT proposes to remove the bulleted requirement exempting individual</p>

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		<p>generating units of dispersed Generation resources determining this requirement was not necessary if Transmission Operator provides the threshold of reporting. The Transmission Operator would be in best position to evaluate BES element impacts to system operations for Real-time assessment and monitoring as reactive resources change and excluding single generating units of dispersed Generation does not provide enough clarity to what reporting is required for dispersed generation. Furthermore, excluding individual generating units of dispersed Generation resources from Requirement R4 reporting may pose a conflict with other enforceable standards requiring this type of data such individual generating unit on/off status.</p> <p>The SDT agrees with the Project 2014-01 VAR-002 SDT that coming offline for dispersed Generation would not need to be reported for capability changes but feel the details of these impacts should be mutually agreed with the Transmission Operator.</p> <p><u>The intent to degrade and restore from degradation is meant to address the site controllers that are partially degraded the</u></p>

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		<u>ability to automatically control voltage to follow instruction or facility degraded reactive capability to TOP for assessing regional system reactive resource capability impacts.</u>
<p><u>VAR-002-4.1, Measure M4</u></p> <p><u>The Generator Operator shall have evidence it notified its associated Transmission Operator within 30 minutes of becoming aware of a change in reactive capability in accordance with Requirement R4. If the capability has been restored within the first 30 minutes, no notification is necessary.</u></p>	<p><u>VAR-002-5, Measure M4</u></p> <p><u>The Generator Operator shall have evidence it notified its associated Transmission Operator within 30 minutes of becoming aware of a change in reactive capability in accordance with Requirement R4. If the capability has been restored within the first 30 minutes, no notification is necessary. The Generator Operator will provide evidence of coordination with the Transmission Operator to identify a mutually-agreeable criteria, such as any of the following: emails, voltage schedule documentation, or reliability data specification.</u></p>	<p><u>Requirement R4 has been modified to clarify the intent of Requirement for Generator Operator to communicate to the Transmission Operator in a mutually agreed criteria like other NERC Standards, e.g., TOP-003, for required notifications when Generator controlled reactive resources change in Real-time operations and impact the output of the generation facility other than AVR or volt/VAR controller(s) specified in R3.</u></p>
<p>VAR-002-4.1, Requirement R5</p> <p>The Generator Owner shall provide the following to its associated Transmission Operator and Transmission Planner within 30 calendar days of a request. <i>[Violation Risk Factor: Lower] [Time Horizon: Real-time Operations]</i></p>	<p>VAR-002-5, Requirement R5</p> <p>The Generator Owner <u>for each applicable Facility</u> shall provide the following to its associated Transmission Operator and Transmission Planner within 30 calendar days of a request. <i>[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]</i></p>	<p>Requirement R5 and corresponding measure have been maintained due to the importance of having accurate tap settings. If not properly set, then the VARs available from that unit can be affected. This requirement has been modified to update R5.1 for technology neutral language</p>

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		<p>with respect to transformer modeling data by removing the words, “fixed tap ranges.” The Project 2021-02 SDT agrees with the Project 2016-EPR-02 and proposes to update the Operations Planning horizon to Real-Time horizon, due to requirement for Generator Owner to provide data to the Transmission Operator and Transmission Planner within 30 calendar days of a request.</p> <p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>
<p>VAR-002-4.1, Requirement R5, Part 5.1.2</p> <p>Available fixed tap ranges.</p>	<p>VAR-002-5, Requirement R5, Part 5.1.2</p> <p>Available tap ranges.</p>	<p>Requirement R5 and corresponding measure have been maintained due to the importance of having accurate tap settings. If not properly set, then the VARs available from that unit can be affected. This requirement has been modified to update R5.1 for technology neutral language with respect to transformer modeling data by removing the words, “fixed tap ranges.” The Project 2021-02 SDT agrees with the Project 2016-EPR-02 and proposes to update the Operations Planning horizon to Real-Time</p>

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		horizon, due to requirement for Generator Owner to provide data to the Transmission Operator and Transmission Planner within 30 calendar days of a request.
<p><u>VAR-002-4.1, Measure M5</u></p> <p><u>The Generator Owner shall have evidence it provided its associated Transmission Operator and Transmission Planner with information on its step-up and auxiliary transformers as required in Requirement R5, Part 5.1.1 through Part 5.1.3 within 30 calendar days.</u></p>	<p><u>VAR-002-5, Measure M5</u></p> <p><u>The Generator Owner for each applicable Facility shall have evidence it provided its associated Transmission Operator and Transmission Planner with information on its step-up and auxiliary transformers as required in Requirement R5, Part 5.1.1 through Part 5.1.3 within 30 calendar days.</u></p>	<p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>
<p>VAR-002-4.1, Requirement R6</p> <p>After consultation with the Transmission Operator regarding necessary step-up transformer tap changes, the Generator Owner shall ensure that transformer tap positions are changed according to the specifications provided by the Transmission Operator, unless such action would violate safety, an equipment rating, a regulatory requirement, or a statutory requirement. <i>[Violation Risk Factor: Lower] [Time Horizon: Real-time Operations]</i></p>	<p>VAR-002-5, Requirement R6</p> <p>After consultation with the Transmission Operator regarding necessary generator owned step-up transformer tap changes, the Generator Owner <b>for each applicable Facility</b> shall ensure that transformer tap positions are changed according to the specifications provided by the Transmission Operator, unless such action would violate safety, an Equipment Rating, a regulatory requirement, or a statutory requirement. <i>[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]</i></p>	<p>Requirement R6 and corresponding measure have been maintained due to the importance of having accurate tap settings. If not properly set, then the VARs available from that unit can be affected. This requirement has been modified to capitalize the words, “equipment rating,” for a NERC defined term. Step-up transformer tap changes according to the specifications provided by the Transmission Operator will typically involve an outage of the transformer and is the culmination of a longer term process to determine if a transformer tap change is appropriate, therefore the Project 2021-02 SDT</p>

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		<p>agrees with the Project 2016-EPR-02 and proposes changing the time horizon from Real-Time Operations to Operations Planning horizon.</p> <p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>
<p><u>VAR-002-4.1, Requirement Part R6.1</u></p> <p><u>If the Generator Owner cannot comply with the Transmission Operator’s specifications, the Generator Owner shall notify the Transmission Operator and shall provide the technical justification.</u></p>	<p><u>VAR-002-5, Requirement Part R6.1</u></p> <p><u>If the Generator Owner for each applicable Facility cannot comply with the Transmission Operator’s specifications, the Generator Owner for each applicable Facility shall notify the Transmission Operator and shall provide the technical justification.</u></p>	<p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>
<p><u>VAR-002-4.1, Measure M6</u></p> <p><u>The Generator Owner shall have evidence that its step-up transformer taps were modified per the Transmission Operator’s documentation in accordance with Requirement R6. The Generator Owner shall have evidence that it notified its associated Transmission Operator when it could not comply with the Transmission Operator’s step-up transformer tap specifications in accordance with Requirement R6, Part 6.1.</u></p>	<p><u>VAR-002-5, Measure M6</u></p> <p><u>The Generator Owner for each applicable Facility shall have evidence that its step-up transformer taps were modified per the Transmission Operator’s documentation in accordance with Requirement R6. The Generator Owner for each applicable Facility shall have evidence that it notified its associated Transmission Operator when it could not comply with the Transmission Operator’s</u></p>	<p><u>Section 4.2 has been revised to “applicable Facility” to specifically include BES definition aspects.</u></p>



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	<u>step-up transformer tap specifications in accordance with Requirement R6, Part 6.1.</u>	