

A. Introduction

1. **Title:** Transmission Operator and Balancing Authority Data and Information Specification and Collection
2. **Number:** TOP-003-6.1
3. **Purpose:** To ensure that each Transmission Operator and Balancing Authority has the data and information it needs to plan, monitor, and assess the operation of its Transmission Operator Area or Balancing Authority Area.
4. **Applicability:**
 - 4.1 Functional Entities:
 - 4.1.1 Transmission Operator
 - 4.1.2 Balancing Authority
 - 4.1.3 Generator Owner
 - 4.1.4 Generator Operator
 - 4.1.5 Transmission Owner
 - 4.1.6 Distribution Provider
5. **Effective Date:** See Implementation Plan for Project 2021-06.

B. Requirements and Measures

- R1.** Each Transmission Operator shall maintain documented specification(s) for the data and information necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. The specification shall include, but not be limited to: *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*
- 1.1.** A list of data and information needed by the Transmission Operator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments including non-BES data and information, external network data and information, and identification of the entities responsible for responding to the specification as deemed necessary by the Transmission Operator.
 - 1.2.** Provisions for notification of current Protection System and Remedial Action Scheme (RAS) status or degradation that impacts System reliability.
 - 1.3.** Provisions for notification of BES generating unit(s) during local forecasted cold weather to include:
 - 1.3.1.** Operating limitations based on:
 - 1.3.1.1.** capability and availability;
 - 1.3.1.2.** fuel supply and inventory concerns;
 - 1.3.1.3.** fuel switching capabilities; and
 - 1.3.1.4.** environmental constraints
 - 1.3.2.** Generating unit(s) minimum:
 - 1.3.2.1.** design temperature; or
 - 1.3.2.2.** historical operating temperature; or
 - 1.3.2.3.** current cold weather performance temperature determined by an engineering analysis.
 - 1.4.** Identification of a mutually agreeable process for resolving conflicts.
 - 1.5.** Method(s) for the entity identified in Part 1.1 to provide the data and information that includes at a minimum the following.
 - 1.5.1.** Specified deadlines or periodicity which data and information is to be provided;
 - 1.5.2.** Performance criteria for the availability and accuracy of data and information as applicable;
 - 1.5.3.** Provisions to update or correct data and information, as applicable or necessary;
 - 1.5.4.** A mutually agreeable format;
 - 1.5.5.** Mutually agreeable method(s) for securely transferring data and information.

- M1.** Each Transmission Operator shall make available its dated, current, in force documented specification(s) for data and information.
- R2.** Each Balancing Authority shall maintain documented specification(s) for the data and information necessary for it to perform its analysis functions and Real-time monitoring. The data specification shall include, but not be limited to: *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*
 - 2.1.** A list of data and information needed by the Balancing Authority to support its analysis functions and Real-time monitoring including non-Bulk Electric System data and information, and external network data and information, as deemed necessary by the Balancing Authority, and identification of the entity responsible for responding to the specification.
 - 2.2.** Provisions for notification of current Protection System and Remedial Action Scheme status or degradation that impacts System reliability.
 - 2.3.** Provisions for notification of BES generating unit(s) status during local forecasted cold weather to include:
 - 2.3.1.** Operating limitations based on:
 - 2.3.1.1.** capability and availability;
 - 2.3.1.2.** fuel supply and inventory concerns;
 - 2.3.1.3.** fuel switching capabilities; and
 - 2.3.1.4.** environmental constraints.
 - 2.3.2.** Generating unit(s) minimum:
 - 2.3.2.1.** design temperature; or
 - 2.3.2.2.** historical operating temperature; or
 - 2.3.2.3.** current cold weather performance temperature determined by an engineering analysis.
 - 2.4.** Identification of a mutually agreeable process in resolving conflicts
 - 2.5.** Methods for the entity identified in Part 2.1 to provide data and information that includes at a minimum the following.
 - 2.5.1.** Specific deadlines or periodicity in which data and information is to be provided;
 - 2.5.2.** Performance criteria for the availability and accuracy of data and information, as applicable;
 - 2.5.3.** Provisions to update or correct data and information, as applicable or necessary.
 - 2.5.4.** A mutually agreeable format.
 - 2.5.5.** A mutually agreeable method(s) for securely transferring data and information.

- M2.** Each Balancing Authority shall make available its dated, current, in force documented specification(s) for data and information.
- R3.** Each Transmission Operator shall distribute its data and information specification(s) to entities that have data and information required by the Transmission Operator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*
- M3.** Each Transmission Operator shall make available evidence that it has distributed its data specification(s) to entities that have data and information required by the Transmission Operator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.

Such evidence could include but is not limited to web postings with an electronic notice of the posting, dated operator logs, voice recordings, postal receipts showing the recipient, date and contents, or e-mail records.

- R4.** Each Balancing Authority shall distribute its data and information specification(s) to entities that have data and information required by the Balancing Authority’s analysis functions and Real-time monitoring. *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*
- M4.** Each Balancing Authority shall make available evidence that it has distributed its data specification(s) to entities that have data and information required by the Balancing Authority’s analysis functions and Real-time monitoring. Such evidence could include but is not limited to web postings with an electronic notice of the posting, dated operator logs, voice recordings, postal receipts showing the recipient, or e-mail records.
- R5.** Each Transmission Operator, Balancing Authority, Generator Owner, Generator Operator, Transmission Owner, and Distribution Provider receiving a data and information specification(s) in Requirement R3 or R4 shall satisfy the obligations of the documented specifications. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning, Same-Day Operations, Real-time Operations]*
- M5.** Each Transmission Operator, Balancing Authority, Generator Owner, Generator Operator, Transmission Owner, and Distribution Provider receiving a specification(s) in Requirement R3 or R4 shall make available evidence that it has satisfied the obligations of the documented specification. Such evidence could include, but is not limited to, electronic or hard copies of data transmittals or attestations of receiving entities.

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority: “Compliance Enforcement Authority” (CEA) means NERC or the Regional Entity, or any entity as otherwise designated by an Applicable Governmental Authority, in their respective roles of monitoring and/or enforcing compliance with mandatory and enforceable Reliability Standards in their respective jurisdictions.

1.2. Evidence Retention: The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the CEA may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

Each responsible entity shall keep data or evidence to show compliance as identified below unless directed by its CEA to retain specific evidence for a longer period of time as part of an investigation.

Each Transmission Operator shall retain its dated, current, in force, documented specification for the data and information necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments in accordance with Requirement R1 and Measurement M1 as well as any documents in force since the last compliance audit.

Each Balancing Authority shall retain its dated, current, in force, documented specification(s) for the data and information necessary for it to perform its analysis functions and Real-time monitoring in accordance with Requirement R2 and Measurement M2 as well as any documents in force since the last compliance audit.

Each Transmission Operator shall retain evidence for three calendar years that it has distributed its specification(s) to entities that have data required by the Transmission Operator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments in accordance with Requirement R3 and Measurement M3.

Each Balancing Authority shall retain evidence for three calendar years that it has distributed its specification(s) to entities that have data required by the Balancing Authority’s analysis functions and Real-time monitoring in accordance with Requirement R4 and Measurement M4.

Each Balancing Authority, Generator Owner, Generator Operator, Transmission Operator, Transmission Owner, and Distribution Provider receiving a specification(s) in Requirement R3 or R4 shall retain evidence for the most recent 90-calendar days that it has satisfied the obligations of the documented specifications in accordance with

Requirement R5 and Measurement M5.

1.3. Compliance Monitoring and Enforcement Program: As defined in the NERC Rules of Procedure, “Compliance Monitoring and Enforcement Program” refers to the identification of the processes that will be used to evaluate data or information for the purpose of assessing performance or outcomes with the associated reliability standard.

Violation Severity Levels

R#	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Operations Planning	Lower	The Transmission Operator did not include one or two of the parts (Part 1.1 through Part 1.5) of the documented specification(s) for the data and information necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.	The Transmission Operator did not include three of the parts (Part 1.1 through Part 1.5) of the documented specification(s) for the data and information necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.	The Transmission Operator did not include four of the parts (Part 1.1 through Part 1.5) of the documented specification(s) for the data and information necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.	The Transmission Operator did not include any of the parts (Part 1.1 through Part 1.5) of the documented specification(s) for the data and information necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. OR, The Transmission Operator did not have a documented specification(s) for the data and information on necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.

R#	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R2	Operations Planning	Lower	The Balancing Authority did not include two or fewer of the parts (Part 2.1 through Part 2.5) of the documented specification(s) for the data and information necessary for it to perform its analysis functions and Real-time monitoring.	The Balancing Authority did not include three of the parts (Part 2.1 through Part 2.5) of the documented specification(s) for the data and information necessary for it to perform its analysis functions and Real-time monitoring.	The Balancing Authority did not include four of the parts (Part 2.1 through Part 2.5) of the documented specification(s) for the data and information necessary for it to perform its analysis functions and Real-time monitoring.	The Balancing Authority did not include any of the parts (Part 2.1 through Part 2.5) of the documented specification(s) for the data and information necessary for it to perform its analysis functions and Real-time monitoring. OR, The Balancing Authority did not have a documented specification(s) for the data and information necessary for it to perform its analysis functions and Real-time monitoring.
For the Requirement R3 and R4 VSLs only, the intent of the SDT is to start with the Severe VSL first and then to work your way to the left until you find the situation that fits. In this manner, the VSL will not be discriminatory by size of entity. If a small entity has just one affected reliability entity to inform, the intent is that that situation would be a Severe violation.						
R3	Operations Planning	Lower	The Transmission Operator did not distribute its Specification(s) to one entity, or 5% or less of the entities, whichever is greater, that have data and information required by the Transmission Operator's Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.	The Transmission Operator did not distribute its Specification(s) to two entities, or more than 5% and less than or equal to 10% of the reliability entities, whichever is greater, that have data and information required by the Transmission Operator's Operational Planning Analyses, Real-	The Transmission Operator did not distribute its Specification(s) to three entities, or more than 10% and less than or equal to 15% of the reliability entities, whichever is greater, that have data and information required by the Transmission Operator's Operational	The Transmission Operator did not distribute its Specification(s) to four or more entities, or more than 15% of the entities that have data and information required by the Transmission Operator's Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.

R#	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
				time monitoring, and Real-time Assessments.	Planning Analyses, Real-time monitoring, and Real-time Assessments.	
R4	Operations Planning	Lower	The Balancing Authority did not distribute its Specification(s) to one entity, or 5% or less of the entities, whichever is greater, that have data and information required by the Balancing Authority’s analysis functions and Real-time monitoring.	The Balancing Authority did not distribute its Specification(s) to two entities, or more than 5% and less than or equal to 10% of the entities, whichever is greater, that have data and information required by the Balancing Authority’s analysis functions and Real-time monitoring.	The Balancing Authority did not distribute its Specification(s) to three entities, or more than 10% and less than or equal to 15% of the entities, whichever is greater, that have data and information required by the Balancing Authority’s analysis functions and Real-time monitoring.	The Balancing Authority did not distribute its Specification(s) to four or more entities, or more than 15% of the entities that have data and information required by the Balancing Authority’s analysis functions and Real-time monitoring.
R5	Operations Planning, Same-Day Operations, Real-time Operations	Medium	The responsible entity receiving a specification(s) in Requirement R3 or R4 satisfied the obligations in the specification but failed to meet one of the parts in Requirement R1 Part 1.5- or Requirement R2 Part 2.5.	The responsible entity receiving a specification(s) in Requirement R3 or R4 satisfied the obligations in the specification but failed to meet two of the parts in Requirement R1 Part 1.5 or Requirement R2 Part 2.5.	The responsible entity receiving a specification(s) in Requirement R3 or R4 satisfied the obligations in the specification but failed to meet three or more of the parts in Requirement R1 Part 1.5 or Requirement R2 Part 2.5.	The responsible entity receiving a specification(s) in Requirement R3 or R4 did not satisfy the obligations of the documented specifications .

D. Regional Variances

None.

E. Interpretations

None.

F. Associated Documents

None.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata
1		Modified R1.2 Modified M1 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
1	October 17, 2008	Adopted by NERC Board of Trustees	
1	March 17, 2011	Order issued by FERC approving TOP- 003-1 (approval effective 5/23/11)	
2	May 6, 2012	Revised under Project 2007-03	Revised
2	May 9, 2012	Adopted by Board of Trustees	Revised
3	April 2014	Changes pursuant to Project 2014-03	Revised
3	November 13, 2014	Adopted by Board of Trustees	Revisions under Project 2014-03
3	November 19, 2015	FERC approved TOP-003-3. Docket No. RM15-16-000, Order No. 817	
4	February 6, 2020	Adopted by NERC Board of Trustees	Revisions under Project 2017-07
4	October 30, 2020	FERC approved TOP-003-4. Docket No. RD20-4-000	
5	May 2021	Changes pursuant to Project 2019-06	Revised
5	June 11, 2021	Board approved	Project 2019-06 Cold Weather
5	August 24, 2021	FERC approved TOP –003-5 Docket No. RD21-5-000, Order 176	
6	TBD	Adopted by NERC Board of Trustees	Revisions under project 2021-06
6.1	Errata	Approved by the Standards Committee	