

Standard Development Timeline

This section is maintained by the drafting team during the development of the standard and will be removed when the standard is adopted by the NERC Board of Trustees (Board).

Description of Current Draft

This is the final draft of the proposed standard.

| Completed Actions | Date |
|-------------------------------------------------------------------------------|-------------------------------|
| Standards Committee approved Standard Authorization Request (SAR) for posting | January 20, 2021 |
| SAR posted for comment | July 8 - August 6, 2021 |
| SAR posted for comment | January 11 - February 9, 2022 |
| 45-day formal comment period with ballot | October 25 - December 9, 2022 |
| 45-day formal comment period with additional ballot | May 5 - June 11, 2023 |

| Anticipated Actions | Date |
|---------------------|-------------------|
| 10-day final ballot | July 21 – 31 2023 |
| Board adoption | August 2023 |

A. Introduction

1. Title: Transmission Operator and Balancing Authority Data and Information Specification and Collection

2. Number: TOP-003-~~5~~6

3. Purpose: To ensure that each Transmission Operator and Balancing Authority has the Transmission Operator and Balancing Authority have data needed and information it needs to fulfill their operational and planning responsibilities 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 20~~19~~-06.

B. Requirements and Measures

- R1.** Each Transmission Operator shall maintain a 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 ~~data~~ 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. 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.

~~1.4. Specified deadlines or periodicity for providing data.~~

~~1.4.1.1.5.1. The deadline by which the respondent data and information is to provide the indicated data 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 a 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. A-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.

~~2.4. Specific deadlines or periodicity for providing data.~~

~~2.4.1.2.5.1. The deadline by in which the respondent data and information is to provide the indicated data 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 methods 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 using: [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-Day Operations, Real-time Operations*]

~~5.1. A mutually agreeable format~~

~~5.2. A mutually agreeable process for resolving data conflicts~~

~~5.3. A mutually agreeable security protocol~~

M5.- Each Transmission Operator, Balancing Authority, Generator Owner, Generator Operator, Transmission Owner, and Distribution Provider receiving a ~~data~~ specification(s) in Requirement R3 or R4 shall make available evidence that it has satisfied the obligations of the documented specifications. 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

4.1.1 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.

4.1.2 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 ~~Compliance Enforcement Authority~~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 ~~Compliance Enforcement Authority~~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 ~~data~~-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 ~~data~~-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 ~~data~~

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.

4.1.3 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.

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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 two or fewer one or two of the parts (Part 1.1 through Part 1.5) of the documented specification(s) for the data <u>and information</u> 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 <u>and information</u> 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 <u>and information</u> 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 <u>and information</u> 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 <u>and information</u> on necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. |
| 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 <u>and information</u> 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 <u>and information</u> 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 <u>and information</u> 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 <u>and information</u> necessary for it to perform its analysis functions and Real-time monitoring. |

| R# | Time Horizon | VRF | Violation Severity Levels | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| | | | | monitoring. | | OR, The Balancing Authority did not have a documented specification(s) for the data <u>and information</u> 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 data <u>Specification(s)</u> to one entity, or 5% or less of the entities, whichever is greater, that have data <u>and information</u> required by the Transmission Operator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. | The Transmission Operator did not distribute its data <u>Specification(s)</u> to two entities, or more than 5% and less than or equal to 10% of the reliability entities, whichever is greater, that have data <u>and information</u> required by the Transmission Operator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. | The Transmission Operator did not distribute its data <u>Specification(s)</u> to three entities, or more than 10% and less than or equal to 15% of the reliability entities, whichever is greater, that have data <u>and information</u> required by the Transmission Operator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. | The Transmission Operator did not distribute its data <u>Specification(s)</u> to four or more entities, or more than 15% of the entities that have data <u>and information</u> required by the Transmission Operator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. |
| R4 | Operations Planning | Lower | The Balancing Authority did not distribute its data <u>Specification(s)</u> to one entity, or 5% or less of the entities, whichever is greater, that have data <u>and information</u> required | The Balancing Authority did not distribute its data <u>Specification(s)</u> to two entities, or more than 5% and less than or equal to 10% of the entities, whichever is greater, that | The Balancing Authority did not distribute its data <u>Specification(s)</u> to three entities, or more than 10% and less than or equal to 15% of the entities, whichever is greater, that | The Balancing Authority did not distribute its data <u>Specification(s)</u> to four or more entities, or more than 15% of the entities that have data <u>and information</u> required by |

| R# | Time Horizon | VRF | Violation Severity Levels | | | |
|----|----------------------------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| | | | by the Balancing Authority’s analysis functions and Real-time monitoring. | have data <u>and information</u> required by the Balancing Authority’s analysis functions and Real-time monitoring. | have data <u>and information</u> required by the Balancing Authority’s analysis functions and Real-time monitoring. | 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 data specification(s) in Requirement R3 or R4 satisfied the obligations in the data specification but <u>failed did-not to</u> meet one of the parts criteria shown in Requirement R15 (Parts 15.51- or 5.3) <u>Requirement R2 Part 2.5.</u> | The responsible entity receiving a data specification(s) in Requirement R3 or R4 satisfied the obligations in the data specification but did-notfailed to meet two of the parts criteria shown in Requirement R15 (Parts 15.51–5.3) <u>or Requirement R2 Part 2.5.</u> | The responsible entity receiving a data specification(s) in Requirement R3 or R4 satisfied the obligations in the data specification but did-notfailed to meet three or more of the parts criteria shown in Requirement R15 (Parts 15.15 –5.3) <u>or Requirement R2 Part 2.5.</u> | The responsible entity receiving a data specification(s) in Requirement R3 or R4 did not satisfy the obligations of the documented specifications for data . |

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 |