

# Reliability Standard Audit Worksheet<sup>1</sup>

## PRC-002-2 – Disturbance Monitoring and Reporting Requirements

*This section to be completed by the Compliance Enforcement Authority.*

**Audit ID:** Audit ID if available; or REG-NCRnnnnn-YYYYMMDD  
**Registered Entity:** Registered name of entity being audited  
**NCR Number:** NCRnnnnn  
**Compliance Enforcement Authority:** Region or NERC performing audit  
**Compliance Assessment Date(s)<sup>2</sup>:** Month DD, YYYY, to Month DD, YYYY  
**Compliance Monitoring Method:** [On-site Audit | Off-site Audit | Spot Check]  
**Names of Auditors:** Supplied by CEA

### Applicability of Requirements *[RSAW developer to insert correct applicability]*

	BA	DP	GO	GOP	IA	LSE	PA	PSE	RC/PC	RP	RSG	TO	TOP	TP	TSP
R1												X			
R2			X									X			
R3			X									X			
R4			X									X			
R5							X		X						
R6												X			
R7			X												
R8			X									X			
R9			X									X			
R10			X									X			
R11			X									X			
R12			X									X			

<sup>1</sup> NERC developed this Reliability Standard Audit Worksheet (RSAW) language in order to facilitate NERC’s and the Regional Entities’ assessment of a registered entity’s compliance with this Reliability Standard. The NERC RSAW language is written to specific versions of each NERC Reliability Standard. Entities using this RSAW should choose the version of the RSAW applicable to the Reliability Standard being assessed. While the information included in this RSAW provides some of the methodology that NERC has elected to use to assess compliance with the requirements of the Reliability Standard, this document should not be treated as a substitute for the Reliability Standard or viewed as additional Reliability Standard requirements. In all cases, the Regional Entity should rely on the language contained in the Reliability Standard itself, and not on the language contained in this RSAW, to determine compliance with the Reliability Standard. NERC’s Reliability Standards can be found on NERC’s website. Additionally, NERC Reliability Standards are updated frequently, and this RSAW may not necessarily be updated with the same frequency. Therefore, it is imperative that entities treat this RSAW as a reference document only, and not as a substitute or replacement for the Reliability Standard. It is the responsibility of the registered entity to verify its compliance with the latest approved version of the Reliability Standards, by the applicable governmental authority, relevant to its registration status.

The NERC RSAW language contained within this document provides a non-exclusive list, for informational purposes only, of examples of the types of evidence a registered entity may produce or may be asked to produce to demonstrate compliance with the Reliability Standard. A registered entity’s adherence to the examples contained within this RSAW does not necessarily constitute compliance with the applicable Reliability Standard, and NERC and the Regional Entity using this RSAW reserves the right to request additional evidence from the registered entity that is not included in this RSAW. Additionally, this RSAW includes excerpts from FERC Orders and other regulatory references. The FERC Order cites are provided for ease of reference only, and this document does not necessarily include all applicable Order provisions. In the event of a discrepancy between FERC Orders, and the language included in this document, FERC Orders shall prevail.

<sup>2</sup> Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs.

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### Legend:

Text with blue background:	Fixed text – do not edit
Text entry area with Green background:	Entity-supplied information
Text entry area with white background:	Auditor-supplied information

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**Findings**

**(This section to be completed by the Compliance Enforcement Authority)**

Req.	Finding	Summary and Documentation	Functions Monitored
R1			
R2			
R3			
R4			
R5			
R6			
R7			
R8			
R9			
R10			
R11			
R12			

Req.	Areas of Concern

Req.	Recommendations

Req.	Positive Observations

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**Subject Matter Experts**

Identify the Subject Matter Expert(s) responsible for this Reliability Standard.

**Registered Entity Response (Required; Insert additional rows if needed):**

SME Name	Title	Organization	Requirement(s)

DRAFT

**R1 Supporting Evidence and Documentation**

- R1.** Each Transmission Owner shall identify BES buses for which sequence of events recording (SER) and fault recording (FR) data is required by using the methodology in PRC-002-2, Attachment 1, notify other owners of BES Elements connected to those BES buses, if any, within 90 calendar days that those BES Elements may require SER data and/or FR data, and reevaluate the identified BES buses at least once every five calendar years.
  
- M1.** The Transmission Owner has a dated (electronic or hard copy) list of BES buses for which SER and FR data are required, identified in accordance with Attachment 1, and evidence that the bus identification has been reevaluated within the required interval. The Transmission Owner will also have dated (electronic or hard copy) evidence that it notified other owners in accordance with Requirement R1.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
A list of owners of BES Elements connected to applicable BES buses.
Dated documentation providing evidence of following the steps outlined in Attachment 1, including all steps as applicable at least once every five years to identify the BES buses for which SER and FR data is required.
Dated documentation or other evidence that the TO notified other owners of BES Elements connected to their BES buses within 90 days, if applicable.

**Registered Entity Evidence (Required):**

**The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.**

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R1**

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***This section to be completed by the Compliance Enforcement Authority***

	Select all, or a sample of, entity's BES buses and verify R1 identification has occurred using the methodology in PRC-002-2, Attachment 1.
	Select all, or a sample of other owners of BES Elements connected to applicable BES buses, and verify entity notified other owner within 90 calendar days that Elements may require SER and/or FR data.
	Review evidence that entity evaluated BES buses at least once every five calendar years.
<b>Note to Auditor:</b> A calendar year is defined as January 1 through December 31.	
Use of a system one-line, list of buses or other information may be appropriate for identifying buses for auditor to determine if they were appropriately identified by entity.	
See Attachment 1 of PRC-002-2 for methodology to be used in identifying applicable BES buses.	

**Auditor Notes:**

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**R2 Supporting Evidence and Documentation**

- R2.** Each Transmission Owner and Generator Owner shall have SER data for circuit breaker position (open/close) for each circuit breaker they own connected directly to the BES buses identified in Requirement R1 and associated with the BES Elements at those BES buses identified in Requirement R1.
- M2.** The Transmission Owner or Generator Owner has evidence (electronic or hard copy) of SER data for circuit breaker position as specified in Requirement R2. Evidence may include, but is not limited to: (1) documents describing the device interconnections and configurations which can include a single design standard as representative for common installations; or (2) actual data recordings.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested<sup>1</sup>:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
A one-line diagram or list of the BES buses identified in Requirement R1 or a list of each circuit breaker owned connected directly to the BES buses identified in Requirement R1. This evidence does not show compliance but facilitates the auditor’s testing of compliance.
Documents describing the SER device interconnections and configurations which can include a single design standard as representative for common installations. Actual data recordings for those BES buses may also be presented.

**Registered Entity Evidence (Required):**

<b>The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.</b>					
File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R2**

***This section to be completed by the Compliance Enforcement Authority***

	Select all, or a sample of, applicable circuit breakers and verify existence of SER data for circuit breaker position.
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<b>Note to Auditor:</b>
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**Auditor Notes:**

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**R3 Supporting Evidence and Documentation**

**R3.** Each Transmission Owner and Generator Owner shall have the following FR data to determine the following electrical quantities for each of the BES Elements they own connected to the BES buses identified in Requirement R1:

- 3.1** Phase-to-neutral voltages for each phase of each specified BES bus.
- 3.2** Each phase current and the residual or neutral current for the following BES Elements:
  - 3.2.1** Transformers that have a low-side operating voltage of 100kV or above.
  - 3.2.2** Transmission lines.

**M3.** The Transmission Owner or Generator Owner has evidence (electronic or hard copy) of FR data is sufficient to determine electrical quantities as specified in Requirement R3. Evidence may include, but is not limited to: (1) documents describing the device specifications and configurations including a single design standard as a representation for common installations; or (2) actual data recordings or derivations.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
Documents describing the device specification and configurations as described in Measure M2.
Actual data recordings for applicable BES buses.
For electrical quantities not directly measured, provide documentation regarding the determination (calculation) of these quantities.

**Registered Entity Evidence (Required):**

**The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.**

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**

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**Compliance Assessment Approach Specific to PRC-002-2, R3**

*This section to be completed by the Compliance Enforcement Authority*

	(R3) Select all, or a sample of, applicable Elements (from list or one-line diagram) and verify existence of FR data for the following electrical quantities:
	(Part 3.1) Phase to neutral voltages for each phase of each specified BES bus.
	(Part 3.2) Each phase current and the residual or neutral current for Transformers that have a low-side operating voltage of 100kV or above and Transmission lines.
<b>Note to Auditor:</b>	

**Auditor Notes:**

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**R4 Supporting Evidence and Documentation**

**R4.** Each Transmission Owner and Generator Owner shall have FR data as specified in Requirement R3 that meets the following:

**4.1** A single record or multiple records that include:

- A pre-trigger record length of at least two cycles and a post-trigger record length of at least 30 cycles for the same trigger point, or
- At least two cycles of the pre-trigger data, the first three cycles of the post-trigger data, and the final cycle of the fault as seen by the fault recorder.

**4.2** A minimum recording rate of 16 samples per cycle.

**4.3** Trigger settings for at least the following:

**4.3.1** Neutral (residual) overcurrent.

**4.3.2** Phase undervoltage or overcurrent.

**M4.** The Transmission Owner or Generator Owner has evidence (electronic or hard copy) that FR data meets Requirement R4. Evidence may include, but is not limited to: (1) device specification (R4, Part 4.2) and configuration (R4, Parts 4.1 and 4.3), or (2) actual data recordings or derivations.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested:**

**Provide the following evidence, or other evidence to demonstrate compliance.**

Data device specification(s) that meet R4, Part 4.2 and data device configuration that meet R4, Parts 4.1 and 4.3. Actual data recordings or derivations to prove compliance with R4, Parts 4.1-4.3.

**Registered Entity Evidence (Required):**

**The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.**

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

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**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R4**

*This section to be completed by the Compliance Enforcement Authority*

	(R4) Using items selected by auditor for R3, verify data meets the following:
	(Part 4.1) A single record or multiple records that include a pre-trigger record length of at least two cycles and a post-trigger record length of at least 30 cycles for the same trigger point, or at least two cycles of the pre-trigger data, the first three cycles of the post-trigger data, and the final cycle of the fault as seen by the fault recorder.
	(Part 4.2) A minimum recording rate of 16 samples per cycle.
	(Part 4.3) Trigger settings for at least the following neutral (residual) overcurrent and phase undervoltage or overcurrent.

**Note to Auditor:**

**Auditor Notes:**

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**R5 Supporting Evidence and Documentation**

**R5.** Each Responsible Entity shall identify BES Elements for which dynamic disturbance recording (DDR) data is required, notify other owners of BES Elements connected to those BES buses, if any, within 90 calendar days, that those BES Elements may require DDR data, and reevaluate the identified buses at least once every five calendar years.

**5.1** The BES Elements shall include the following:

**5.1.1** Generating resource(s) with:

- Gross individual nameplate rating greater than or equal to 500 MVA, or
- Gross individual nameplate rating greater than or equal to 300 MVA where the gross plant/facility aggregate nameplate rating is greater than or equal to 1000 MVA.

**5.1.2** Any one BES Element associated with major transmission interfaces, as defined by the Responsible Entity. Selection of major transmission interfaces should consider the following guidelines:

- Stability related interfaces or other significant Flowgates in the NERC Book of Flowgates for the Eastern Interconnection, or
- Transfer Paths in the Western Interconnection Path Rating Catalog, or
- Voltage stability limited transfer paths or load serving area, or
- Interfaces between Balancing Authority Areas, or
- Areas of significant congestion, thermal violation history, or relatively low Available Transfer Capability (ATC).

**5.1.3** Each terminal of a high voltage direct current (HVDC) circuit with nameplate rating greater than or equal to 300 MVA, on the alternating current (AC) portion of the converter.

**5.1.4** One or more BES Elements associated with Interconnection Reliability Operating Limits (IROLs).

**5.1.5** Any one BES Element within a major voltage sensitive area with an in-service undervoltage load shedding (UVLS) program.

**5.2** The BES Elements shall include a minimum of:

**5.2.1** One BES Element.

**5.2.2** One additional BES Element for each additional 3,000 MW of its historical peak system Demand.

**M5.** The Responsible Entity has a dated (electronic or hard copy) list of BES Elements for DDR data, identified in accordance with Requirement R5, assessed within the required interval, dated evidence (electronic or hard copy) of notification to each Transmission Owner or Generator Owner of Elements identified in Requirement R5. Evidence may include, but is not limited to: letters, emails, electronic files, or hard copy records demonstrating transmittal of information.

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### Registered Entity Response **(Required)**:

#### Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

#### Evidence Requested:

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
One-line diagram(s) of entity's system. Although not evidence of compliance, such diagrams can be used by auditor to identify candidates for identification.
Dated documentation, or other evidence, that the Responsible Entity notified other owners of BES Elements connected to their BES buses within 90 days.
Dated documentation providing evidence of reevaluation of the BES Elements at least once every five years for which DDR data is required. If the audit falls within the first five years of the implementation plan for this standard, this evidence is not required.

### Registered Entity Evidence **(Required)**:

<b>The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.</b>					
File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

### Audit Team Evidence Reviewed **(This section to be completed by the Compliance Enforcement Authority)**:


### Compliance Assessment Approach Specific to PRC-002-2, R5

#### ***This section to be completed by the Compliance Enforcement Authority***

	Review evidence that entity identified BES Elements for which DDR data is required. Using one-line diagram(s) (or other evidence) obtain reasonable assurance that entity identified BES Elements as follows:
	(Part 5.1.1) Generating resources with gross individual nameplate rating greater than or equal to 500 MVA, or gross individual nameplate rating greater than or equal to 300 MVA where the gross plant/facility aggregate nameplate rating is greater than or equal to 1000 MVA.
	(Part 5.1.2) Any one BES Element associated with major transmission interfaces, as defined by the Responsible Entity.

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	(Part 5.1.3) Each terminal of a high voltage direct current (HVDC) circuit with nameplate rating greater than or equal to 300 MVA, on the AC portion of the converter.
	(Part 5.1.4) One or more BES Elements associated with IROLs.
	(Part 5.1.5) Any one BES Element within a major voltage sensitive area with an in-service UVLS program.
	(Part 5.2) The BES Elements includes a minimum of one BES Element and one additional BES Element for each additional 3,000 MW of its historical peak system Demand.
	For all, or a sample of, BES Elements identified and having other owners, verify entity notified other owners of BES Elements connected to those BES buses within 90 calendar days that those BES Elements may require DDR data.
	Verify that buses were reevaluated once every five calendar years.
<b>Note to Auditor:</b> A calendar year is defined as January 1 through December 31.	
With regard to Requirement R5 Part 5.2, auditor should consider the number of BES Elements required to be the peak demand divided by 3,000 MWs.	

### Auditor Notes:

### R6 Supporting Evidence and Documentation

- R6.** Each Transmission Owner shall have DDR data for each BES Element it owns for which it received notification as identified in Requirement R5, to determine the following electrical quantities:
- 6.1** One phase-to-neutral or positive sequence voltage.
  - 6.2** The phase current for the same phase at the same voltage corresponding to the voltage in Requirement R6, Part 6.1, or the positive sequence current.
  - 6.3** Real Power and Reactive Power flows expressed on a three phase basis corresponding to all circuits where current measurements are required.
  - 6.4** Frequency of any one of the voltage(s) in Requirement R6, Part 6.1.
- M6.** The Transmission Owner has evidence (electronic or hard copy) of DDR data to determine electrical quantities as specified in Requirement R6. Evidence may include, but is not limited to: (1) documents describing the device specifications and configurations; or (2) actual data recordings or derivations.

### Registered Entity Response **(Required)**:

**Questions:** Were there any quantities that you could not determine (directly or through calculation) the electrical quantities identified in Parts 6.1-6.4?  Yes  No

If yes, provide a list of such disturbances and quantities.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

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### Registered Entity Response **(Required)**:

#### Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

#### Evidence Requested:

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
List of BES Elements for which entity owns and received notification pursuant to R5.
Documents describing the DDR device interconnections and configurations which can include a single design standard as representative for common installations. Actual DDR data recordings for those BES Elements buses.
For electrical quantities not directly measured, provide documentation regarding the determination (calculation) of these quantities.

### Registered Entity Evidence **(Required)**:

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

### Audit Team Evidence Reviewed **(This section to be completed by the Compliance Enforcement Authority)**:


### Compliance Assessment Approach Specific to PRC-002-2, R6

#### **This section to be completed by the Compliance Enforcement Authority**

	(R6) Select all, or a sample of, BES Elements where entity received notification pursuant to Requirement R5 and verify entity has DDR data to determine the following electrical quantities:
	(Part 6.1) One phase-to-neutral or positive sequence voltage.
	(Part 6.2) The phase current for the same phase at the same voltage corresponding to the voltage in Requirement R6, Part 6.1, or the positive sequence current.
	(Part 6.3) Real Power and Reactive Power flows expressed on a three phase basis corresponding to all circuits where current measurements are required.
	(Part 6.4) Frequency of any one of the voltage(s) in Requirement R6, Part 6.1.

#### Note to Auditor:

**Auditor Notes:**

**R7 Supporting Evidence and Documentation**

**R7.** Each Generator Owner shall have DDR data for each BES Element it owns and is notified according to Requirement R5, to determine the following electrical quantities:

**7.1** One phase-to-neutral, phase-to-phase, or positive sequence voltage at either the generator step up (GSU) transformer high-side or low-side voltage level.

**7.2** The phase current for the same phase at the same voltage in Requirement R7, Part 7.1, phase current(s) for any phase-to-phase voltages, or positive sequence current.

**7.3** Real Power and Reactive Power flows expressed on a three phase basis corresponding to all circuits where current measurements are required.

**7.4** Frequency of at least one of the voltages in Requirement R7, Part 7.1.

**M7.** The Generator Owner has evidence (electronic or hard copy) of DDR data to determine electrical quantities as specified in Requirement R7. Evidence may include, but is not limited to: (1) documents describing the device specifications and configurations; or (2) actual data recordings or derivations.

**Registered Entity Response (Required):**

Were there any quantities that you could not determine (directly or through calculation) the electrical quantities identified in Parts 7.1-7.4?  Yes  No

If yes, provide a list of such disturbances and quantities.

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
List of BES Elements for which entity received notification pursuant to R5.
Documents describing the DDR device interconnections and configurations which can include a single design standard as representative for common installations. Actual DDR data recordings for those BES Elements buses.
For electrical quantities not directly measured, provide documentation regarding the determination (calculation) of these quantities.

**Registered Entity Evidence (Required):**

**The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.**

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File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R7**

*This section to be completed by the Compliance Enforcement Authority*

	(R7) Select all, or a sample of, BES Elements where entity received notification pursuant to Requirement R5 and verify entity has DDR data to determine the following electrical quantities:
	(Part 7.1) One phase-to-neutral or positive sequence voltage at either the generator step up (GSU) transformer high-side or low-side voltage level.
	(Part 7.2) The phase current for the same phase at the same voltage in Requirement R7, Part 7.1, phase current(s) for any phase-to-phase voltages, or positive sequence current.
	(Part 7.3) Real Power and Reactive Power flows expressed on a three phase basis corresponding to all circuits where current measurements are required.
	(Part 7.4) Frequency of any one of the voltage(s) in Requirement R7, Part 7.1.
<b>Note to Auditor:</b>	

**Auditor Notes:**

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**R8 Supporting Evidence and Documentation**

**R8.** Each Transmission Owner and Generator Owner responsible for DDR data in Requirement R5 shall have continuous data recording and storage. If the equipment was installed prior to the effective date of this standard and is not capable of continuous recording, triggered records must meet the following:

**8.1** Triggered record lengths of at least three minutes.

**8.2** At least one of the following three triggers:

- Off nominal frequency trigger set at:

	Low	High
○ Eastern Interconnection	<59.75 Hz	>61.0 Hz
○ Western Interconnection	<59.55 Hz	>61.0 Hz
○ ERCOT Interconnection	<59.35 Hz	>61.0 Hz
○ Hydro-Quebec Interconnection	<58.55 Hz	>61.5 Hz

- Rate of change of frequency trigger set at:

○ Eastern Interconnection	< -0.03125 Hz/sec	> 0.125 Hz/sec
○ Western Interconnection	< -0.05625 Hz/sec	> 0.125 Hz/sec
○ ERCOT Interconnection	< -0.08125 Hz/sec	> 0.125 Hz/sec
○ Hydro-Quebec Interconnection	< -0.18125 Hz/sec	> 0.1875 Hz/sec

- Undervoltage trigger set no lower than 85% of normal operating voltage for a duration of 5 seconds.

**M8.** Each Transmission Owner and Generator Owner has dated evidence (electronic or hard copy) of data recording and storage in accordance with Requirement R8. Evidence may include, but is not limited to: (1) documents describing the device specifications and configurations; or (2) actual data recordings.

**Registered Entity Response (Required):**

**Question:**

Does entity have non-continuous triggered recording capability installed prior to the effective date of PRC-002-2?  Yes  No

If yes, provide documentation that trigger points were set according to the Requirements of R8.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied

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evidence, including links to the appropriate page, are recommended.

**Evidence Requested<sup>1</sup>:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
Data device specification(s) and configuration(s) meeting criteria of R8. Actual data recordings or derivations to prove compliance with R8.

**Registered Entity Evidence (Required):**

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R8**

***This section to be completed by the Compliance Enforcement Authority***

	(R8) For all, or a sample of, BES Elements where entity is responsible for DDR data, examine evidence to verify that entity has continuous data recording and storage. If entity has recording equipment installed prior to the effective date of this standard and is not capable of continuous recording, skip this Compliance Assessment Step and perform the next step, which is not applicable if entity has continuous data recording and storage.
	(Part 8.1 and 8.2) Select all, or a sample of, BES Elements where entity is responsible for DDR data and verify (Part 8.1) triggered records record lengths of at least three minutes for (Part 8.2) at least one of the three triggers listed in Part 8.2.

**Note to Auditor:**

**Auditor Notes:**

**R9 Supporting Evidence and Documentation**

**R9.** Each Transmission Owner and Generator Owner in Requirement R5 shall have DDR data that conforms to the following technical specifications:

**9.1** Input sampling rate of at least 960 samples per second.

**9.2** Output recording rate of electrical quantities of at least 30 times per second.

**M9.** The Transmission Owner or Generator Owner has evidence (electronic or hard copy) that DDR data meets Requirement R9. Evidence may include, but is not limited to: (1) device specification and configuration, or (2) actual data recordings (R9, Part 9.2).

**Evidence Requested<sup>i</sup>:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
Actual DDR data recordings or derivations to prove compliance with R9.

**Registered Entity Evidence (Required):**

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R9**

*This section to be completed by the Compliance Enforcement Authority*

	(R9) For all, or a sample of, BES Elements where entity is responsible for DDR data, examine evidence to verify that entity data conforms to the following technical specifications:
	(Part 9.1) Input sampling rate of at least 960 samples per second.
	(Part 9.2) Output recording rate of electrical quantities of at least 30 times per second.

**Note to Auditor:**

**Auditor Notes:**

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**R10 Supporting Evidence and Documentation**

**R10.** Each Transmission Owner and Generator Owner shall time synchronize all SER, FR and DDR data for the BES buses identified in Requirement R1 and BES Elements identified in Requirement R5 to within  $\pm 2$  milliseconds of Coordinated Universal Time (UTC), time stamped with or without a local time offset.

**M10.** The Transmission Owner or Generator Owner has evidence (electronic or hard copy) of time synchronization described in Requirement R10. Evidence may include, but is not limited to: (1) device specification and configuration, or (2) actual data recordings, or (3) station drawings.

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
Actual DDR data recordings or derivations to prove compliance with R10.

**Registered Entity Evidence (Required):**

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R10**

***This section to be completed by the Compliance Enforcement Authority***

	For all, or a sample of, BES buses/Elements examine evidence to verify that entity time synchronized all SER, FR and DDR data to within $\pm 2$ milliseconds of UTC per Requirement R10.
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**Note to Auditor:**

**Auditor Notes:**

**R11 Supporting Evidence and Documentation**

**R11.** Each Transmission Owner and Generator Owner shall provide all SER, FR, and DDR data for the BES buses identified in Requirement R1 and BES Elements identified in Requirement R5 to the Reliability Coordinator, Regional Entity, or NERC as follows:

- 11.1** The recorded data will be provided within 30 calendar days of a request.
- 11.2** The recorded data will be retrievable for the period of 10 calendar days preceding a request.
- 11.3** SER data will be provided in Comma Separated Value (.CSV) format following Attachment 2.
- 11.4** FR and DDR data will be provided in electronic C37.111, (C37.111-2013 or later) IEEE Standard for Common Format for Transient Data Exchange (COMTRADE), formatted files.
- 11.5** Data files will be named in conformance with C37.232, IEEE Standard for Common Format for Naming Time Sequence Data Files (COMNAME).

**M11.** The Transmission Owner or Generator Owner has evidence (electronic or hard copy) data was submitted upon request in accordance with Requirement R11. Evidence may include, but is not limited to: (1) dated transmittals to the requesting entity with formatted records, (2) device specification and configuration, or (3) actual data recordings.

**Registered Entity Response (Required):**

**Question:** Did you have any requests for SER, FR and/or DDR data?  Yes  No

If yes, provide a list of such requests.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested<sup>1</sup>:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
Dated transmittals to the requesting entity with formatted records in accordance with R11, Parts 11.1 and 11.2.
Actual data recordings that conform with R11, Parts 11.3-11.5. In the absence of a request, device specification and configuration may be provided as evidence of compliance with R11.

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**Registered Entity Evidence (Required):**

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R11**

*This section to be completed by the Compliance Enforcement Authority*

	(R11) For all, or a sample of, BES buses/Elements examine evidence to verify that entity provided all SER, FR, and DDR data to the Reliability Coordinator, Regional Entity or NERC as follows:
	(Part 11.1) within 30 days of request
	(Part 11.2) retrievable for 10 calendar days preceding request
	(Part 11.3) provided in .CSV format following Attachment 2 of this Reliability Standard
	(Part 11.4) FR and DDR data provided in electronic C37.111-2013 or later format per IEEE COMTRADE.
	(Part 11.5) Data file named in conformance with C37.232 format per IEE COMNAME.

**Note to Auditor:** See Attachment 2 of PRC-002-2 for information regarding format of submitted SER data.

**Auditor Notes:**

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**R12 Supporting Evidence and Documentation**

**R12.** Each Transmission Owner and Generator Owner shall, within 90 calendar days of the discovery of a failure of the recording capability for the SER, FR or DDR data, restore the recording capability or develop a timeline for restoration and a Corrective Action Plan (CAP) for submission to the Regional Entity.

**M12.** The Transmission Owner or Generator Owner has dated evidence (electronic or hard copy) that meets Requirement R12. Evidence may include, but is not limited to: (1) dated reports of discovery of a failure, (2) documentation noting the date the data recording was restored, or (3) dated CAP transmittals to the Regional Entity.

**Registered Entity Response (Required):**

**Question:** Did you experience a failure of recording capability for SER, FR or DDR data as required by PRC-002-2?  Yes  No

If yes, provide a dated list of such failures.

[Include additional information regarding the question here, including the type of response and format of the response requested, as appropriate.]

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

**Registered Entity Response (Required):**

**Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**Evidence Requested:**

<b>Provide the following evidence, or other evidence to demonstrate compliance.</b>
If the responsible entity experienced the failure of recording capability for SER, FR or DDR data as required by PRC-002-2, the responsible entity will provide (1) dated reports of discovery of a failure, (2) documentation noting the date the data recording was restored, or (3) dated CAP transmittals to the Regional Entity.

**Registered Entity Evidence (Required):**

**The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.**

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

**DRAFT NERC Reliability Standard Audit Worksheet**

**Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):**


**Compliance Assessment Approach Specific to PRC-002-2, R12**

*This section to be completed by the Compliance Enforcement Authority*

	For all, or a sample of, recording device failures per Requirement R12, examine evidence and verify entity, within 90 days, either restored the recording capability for the SER, FR or DDR data or developed a timeline for restoration and a CAP, which it submitted it to its Regional Entity.
	If entity experienced no applicable failures during the compliance monitoring period, auditor should understand entity's process for discovering and mitigating such failures in accordance with Requirement R12.

**Note to Auditor:**

**Auditor Notes:**

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**Additional Information:**

**Reliability Standard**

*The RSAW developer should provide the following information without hyperlinks. Update the information below as appropriate.*

The full text of PRC-002-2 may be found on the NERC Web Site (www.nerc.com) under “Program Areas & Departments”, “Reliability Standards.”

In addition to the Reliability Standard, there is an applicable Implementation Plan available on the NERC Web Site.

In addition to the Reliability Standard, there is background information available on the NERC Web Site.

Capitalized terms in the Reliability Standard refer to terms in the NERC Glossary, which may be found on the NERC Web Site.

**Sampling Methodology**

Sampling is essential for auditing compliance with NERC Reliability Standards since it is not always possible or practical to test 100% of either the equipment, documentation, or both, associated with the full suite of enforceable standards. The Sampling Methodology Guidelines and Criteria (see NERC website), or sample guidelines, provided by the Electric Reliability Organization help to establish a minimum sample set for monitoring and enforcement uses in audits of NERC Reliability Standards.

**Regulatory Language** [[Developer to ensure RSAW has been provided to NERC Legal for links to appropriate Regulatory Language – See example below](#)]

E.g. FERC Order No. 742 paragraph 34: “Based on NERC’s.....”

E.g. FERC Order No. 742 Paragraph 55, Commission Determination: “We affirm NERC’s.....”

**DRAFT** NERC Reliability Standard Audit Worksheet

**Revision History for RSAW**

Version	Date	Reviewers	Revision Description
1	06/06/2014	NERC Compliance	New Document

<sup>i</sup> Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity's discretion.

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