
	<b>Reliability Coordinator Procedure</b>	<b>Procedure No.</b>	RC0670
		<b>Version No.</b>	1.7
		<b>Effective Date</b>	10/10/24
<b>NERC PRC-002 Disturbance Monitoring and Reporting Requirements Process</b>		<b>Distribution Restriction: None</b>	

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## 1. Purpose

Document the internal process for RC West:

- Identifies Bulk Electric System (BES) Elements for which Dynamic Disturbance Recording (DDR) data is required
- Identifies a minimum DDR coverage, inclusive of those BES elements identified for which DDR data is required
- Notifies all owners of identified BES elements that their respective BES Elements require DDR data
- Re-evaluates all BES elements at least once every five calendar years and notifies all owners of identified BES elements that had BES elements requiring DDR data
- Facilitates compliance with NERC Reliability Standard PRC-002-4


## 2. Introduction

NERC Reliability Standard PRC-002-4 (Disturbance Monitoring and Reporting Requirements) was created to ensure adequate data is available to facilitate analysis of BES Disturbances. PRC-002-4 requires RC West, as the Reliability Coordinator in the Western Interconnection, to build and maintain a list of Dynamic Disturbance Recorders (DDR) that meet the requirements spelled out in R5.

## 3. Role and Responsibility

The Operations Engineering Services team is responsible for maintenance of this process document including the PRC-002 DDR list in the PRC-002-4 CAISO DDR List. The process document will be reviewed at least once every three years, but updates will occur whenever required. The DDR list will be evaluated at least once every five years.

When a Transmission Owner or Generator Owner notifies RC West of a BES element or DDR status change within the 5 year review period, in accordance with [Section 5](#) of this document, then evaluation and revision of the PRC-002-4 DDR list will also occur. The Operations Engineering team notifies all owners of identified BES Elements within 90 days of changes to the DDR list and when implementation of a reevaluated list of BES Elements is required. The DDR list is considered confidential and will only be shared with owners of an identified BES Element(s) or those having access to the CAISO RC portal. Mechanisms for notification to the owners of identified elements include email and posting of the DDR list to the RC West Portal. RC West will not provide the DDR list or attestations to non-owners of identified BES Elements.

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## 4. BES Element Identification

Per NERC Reliability Standard PRC-002-4 R5.1 and R5.2, RC West identifies BES Elements for which DDR data is required and documents them in the PRC-002-4 CAISO DDR List, in accordance with the notification and review periods in [Section 3](#) of this document.

The PRC-002 DDR list contains identified BES Elements for which dynamic Disturbance recording (DDR) data is required, including the following:

1) Generating resource(s) with:

a) Gross individual nameplate ratings greater than or equal to 500 MVA

The Operations Engineering Services team identifies individual units meeting the minimum 500 MVA or greater nameplate requirement by reviewing and confirming the modeled MVA rating with the GOP for individual units that are identified as potentially  $\geq 500$  MVA with maximum MW  $\geq 375$  MW, 75% of PMax in the EMS model.

b) Gross individual nameplate ratings greater than or equal to 300 MVA where the gross plant/facility aggregate nameplate rating is greater than or equal to 1000 MVA

The Operations Engineering Services team identifies individual units meeting the minimum 300 MVA or greater nameplate, where gross plant/facility aggregate meeting 1000 MVA or greater nameplate requirement by reviewing and confirming the modeled MVA rating with the GOP for individual units that are identified as potentially  $\geq 225$  MW, 75% of PMax 300 MW in the EMS model.

2) BES Elements that are part of a stability (angular or voltage) related System Operating Limit (SOL)

The Operations Engineering team identifies BES Elements that are part of or in the vicinity of a stability (angular or voltage) related SOL by reviewing the stability limits provided by RC customers through the RC SOL methodology process.

3) Terminals of high voltage direct current (HVDC) circuits with a nameplate rating greater than or equal to 300 MVA, on the alternating current (AC) portion of the converter.

The Operations Engineering team identifies HVDC terminals meeting the minimum 300 MVA or greater nameplate requirement by calculating maximum MVA using the Full Network Model AC rated current and nominal voltage parameters.


4) BES Elements that are part of an Interconnection Reliability Operating Limit (IROL).

The Operations Engineering team identifies BES Elements that are critical to the derivation of a defined IROL, which are listed in each IROL procedure.

5) BES Elements with a major voltage sensitive area as defined by an area with an in-service undervoltage load shedding (UVLS) program.

The Operations Engineering team identifies major voltage sensitive areas by reviewing active Undervoltage Load Shedding programs and applicable Remedial Action Schemes through the RC RAS database or BA/TOP procedures submitted by RC customers.

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Based on the equipment list identified from Steps 1 to 5, the Operations Engineering Services team works with the CAISO Operations Compliance team to reach out to impacted entities to review, confirm, and finalize the list.

The PRC-002 DDR list contains identified minimum DDR coverage, inclusive of those BES Elements identified above, of at least one BES Element; and one BES Element per 3000 MW of RC West’s historical simultaneous peak System Demand. In general, this is the ratio of peak system demand to the total amount of DDRs numbers in the RC West footprint.

## 5. Communication

For all PRC-002-4 questions or discussion, please submit a ticket through the CAISO’s CIDI system. For entities that do not have access to CIDI system, please submit an email request to [ServiceDesk@caiso.com](mailto:ServiceDesk@caiso.com) with “PRC-002-4” verbiage in subject line. The Service desk will create a ticket and assign to the CAISO engineering team.

## 6. Supporting Information

### Operationally Affected Parties

Shared with the Public; additionally shared with affected Generator Owners and Transmission Owners listed in RC0670A Appendix.


### References

NERC Requirements	PRC-002-4
BA/TOP Operating Procedure	
Other References	

### Definitions

The following terms capitalized in this Operating Procedure are in accordance with the NERC Glossary, and/or otherwise when used are as defined below:

Term	Description
None	

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### Version History

Version	Change	Date
1.0	Approved by Steering Committee.	3/12/19
1.1	Updated RC West logo. Updated Distribution Restriction to “None” for public sharing.	9/27/19
1.2	Replaced CAISO RC with RC West. Section 5: Updated to include information for users without CIDI access.	11/26/19
1.3	Periodic Review: Updated Operationally Affected Parties based on PRC-002-2 R5.3. Updated remaining instance if ISO RC to RC West and ISO to CAISO.	7/15/22
1.4	Operationally Affected Parties section: Updated due to previous removal of TO/GO contacts from Appendix I of procedure RC0670A and no longer applicable; and added TANC to the additionally shared with list.	7/27/22
1.5	Updated NERC PRC-002 version references throughout and removed standard version from procedure title.	4/01/24
1.6	Section 3: Updated review and update information. Section 4: Updated the criteria of name plate MVA vs MW in EMS model and various other edits for clarification. Section 6: Included Talen and Northwestern Energy under Operationally Affected Parties shared with list. Minor formatting and grammar edits.	9/12/24
1.7	Operationally Affected Parties: Updated to align with procedure attachment RC0670A, Appendix I: DDR List Association with PRC-002, R5. Included RC0670A in Appendix section.	10/10/24

## 7. Periodic Review Procedure

### Review Criteria & Incorporation of Changes

There are no specific review criteria identified for this document.

### Frequency

Review at least once every three years.

## Appendix

### RC0670A PRC-002 RC West DDR List

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