
	Reliability Coordinator Procedure	Procedure No.	RC0660
		Version No.	1.1
		Effective Date	9/27/2019
Transmission Relay Loadability: NERC PRC-023-4		Distribution Restriction: None	

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1. Purpose

To define the requirements for a TO, GO, DP and/or PC when Reliability Coordinator (RC) agreement of PRC-023-4 related Facility Ratings is required per PRC-023-4, R3 and to communicate the preferred mechanism for submitting lists to the CAISO RC per PRC-023-4, R4 and R6.2.


2. Introduction

TOs, GOs, PCs, and DPs (Submitting Entity) have an obligation to establish protective relay settings that do not limit transmission loadability. There are various criterion defined for preventing relay settings from limiting transmission system loadability as listed under NERC Reliability Standard PRC-023-4, R1. However, NERC Reliability Standard PRC-023-4, R3 requires TOs, GOs, DPs, and PCs to obtain agreement from their RC when specific criterion are used. Furthermore, PRC-023-4, R4 and R6 requires regular updates to the RC.

3. Roles and Responsibilities

The table below provides the roles and responsibilities associated with PRC-023-4.

Responsible Person	Req. No.	Responsibility
TO, GO, DP	PRC-023-4, R3 and R4	Provide the required information via the CAISO RC CIDI system. For entities that do not have access to CIDI system, please submit an email request to ServiceDesk@caiso.com with "PRC-023" verbiage in subject line. The Service desk will create a ticket and assign to CAISO engineering team.
PC	PRC-023-4, R6.2	Provide the required information via the CAISO RC CIDI system.


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Responsible Person	Req. No.	Responsibility
CAISO RC Operation Engineering Team	PRC-023-4 R3, R4, R6.2	<ul style="list-style-type: none"> Review this process document annually for updates or as revisions are identified. Respond to data requests from TO, GO, DP, and/or PC through the CAISO CIDI system. Review the Submitting Entity request and perform an assessment of the information provided. Work with the Submitting Entity if further information is required. Issue either a notice of agreement or notice of non-agreement to the Submitting Entity per PRC-023 R3 requirement.

4. Information Required to Determine Agreement

The CAISO RC requires the following information from Submitting Entities in order to determine agreement. These requirements are listed below as Items 1 through 7. For items 2 through 6, Submitting Entities should use Table 1 as a format guide for providing information. Item 7 shall be provided via a narrative.

1. Applicable single-line diagrams.
2. Which Facility or Facilities are subject to this circuit capability that shall serve as the Facility Rating? Describe these Facilities by applicable "from buses," "to buses" and circuit breaker identifiers.
3. Include the thermal- or equipment-based Facility Rating of these Facilities. (The CAISO RC uses Facility Ratings for branch elements in its Energy Management System. These Facility Ratings typically reflect thermal or equipment limitations. With this request, the RC is being asked to use a Facility Rating that is based on relay loadability limitations from PRC-023-4. The RC needs to understand both the "PRC-023-4 Facility Ratings" as well as the previously provided "FAC-008-3 Facility Ratings.")
4. Provide the value of and calculations for the circuit capability that shall serve as the Facility Rating based on the practical limitations described in PRC-023-4, R1 Criterion 6, 7, 8, 9, 12, or 13. (What limit value is the RC being asked to agree to?)
5. Identify which of the specific PRC-023-4 criterion – 7, 8, 9, 12, or 13 – apply.
6. Provide Amp and MVA values that indicate the point where the RC can reasonably expect the Facility to trip.
7. Provide a narrative that describes:
 - a. Exactly what the RC is being asked to agree to.

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- b. Why the particular PRC-023-4 criterion was selected instead of a different sub-requirement that does not require RC agreement.
- c. How the requested Facility Rating and associated protective relay settings:
 - i. Do not limit transmission loadability.
 - ii. Do not interfere with system operators' ability to take remedial action to protect system reliability.
 - iii. Are set to reliably detect all fault conditions and protect the electrical network from these faults.

Table 1: Expected format to be used when submitting responses to items 2-6 above

Item 2	Item 3	Item 4	Item 5	Item 6
Facility	Thermal- or equipment-based FAC-008 Facility Rating	PRC-023-4 Criterion-based circuit capability to be used as the Facility Rating	Applicable PRC-023-4 Criterion	Facility Trip point
"From bus," "To bus," breaker identifiers	In Amps and MVA	In Amps and MVA	Criterion 7, for example	300-Amp trip, for example


5. Supporting Information

Operationally Affected Parties

Shared with the Public.

References

NERC Requirements	
BA/TOP Operating Procedure	
Other References	

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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	

Version History

Version	Change	Date
1.0	Approved by Steering Committee.	3/12/19
1.1	Updated RC West logo. Section 3: Updated Responsibilities for entities without access to CIDI system and added R4 requirement reference. Updated Distribution Restriction to “None” for public sharing.	9/27/19

6. 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

No references at this time.