

California Independent System Operator

&

DCR Transmission

Joint Transmission Planning Base Case Preparation Process

**NERC Reliability Standard MOD-032-1
Data for Power System Modeling and Analysis**

Version 1.0

June 2024

Table of Contents

1	Introduction.....	1
1.1	Purpose	1
1.2	Overview of the Process.....	1
2	CAISO TPP and WECC Base Case Development Process.....	1
2.1	Roles and Responsibilities	2
2.2	Modeling Assumptions and Responsibilities.....	2
2.2.1	Transmission Project Modeling.....	2
2.2.2	Generation	2
2.2.3	Outage Information.....	2
2.3	Generator Owner Procedures	2
2.4	CAISO TPP Base Case Development Process.....	3
2.5	WECC Base Case Development Process.....	3
2.5.1	Initial Base Case Data Submittal.....	3
2.5.2	WECC’s Base Cases for Base Case Review	4
2.6	Short Circuit Modeling Data	4
Appendix A.	Modeling Communications.....	6
Appendix B.	Evidence Retention.....	1

1 Introduction

1.1 Purpose

The purpose of this document is to (i) as required by NERC Reliability Standard MOD-032, Requirement 1, provide a jointly developed process for the California ISO (CAISO) as the Planning Coordinator (PC) and Balancing Authority (BA), and DCR Transmission as the Transmission Planner (TP), to comply with steady state, dynamics, and short circuit modeling data requirements and reporting procedures for the CAISO Planning Coordinator planning area; (ii) provide details of the assumptions for DCR Transmission and CAISO to use in the annual CAISO Transmission Planning Process (TPP) Base Cases; and (iii) provide an overview of the process used in the development of the CAISO Transmission Planning Process (TPP) and Western Electricity Coordinating Council (WECC) Base Cases.

1.2 Overview of the Process

DCR Transmission owns Bulk Electric System transmission facilities in the CAISO PC Area, but does not have any load or generation directly connected to their transmission facilities. DCR Transmission will annually provide the latest available modeling data for their facilities to the CAISO. The model data will be provided during Phase 1 of each TPP planning cycle, during the timeline in the CAISO TPP Study Plan.

This document includes details of the process followed for developing the WECC and CAISO TPP base cases.

2 CAISO TPP and WECC Base Case Development Process

The base case development process is completed on a yearly basis in order to keep the DCR Transmission system model up-to-date and consistent with any changes that may have occurred throughout the year.

DCR Transmission will provide validated data and ensure that it is accurate and represents up-to-date information for modeling the DCR Transmission facilities in the CAISO Planning Coordinator Area.

Requirement R6 of FAC-014-3 directs each transmission planning entity to use facility ratings and criteria that are not less limiting than those described in RC West's SOL methodology unless the entity provides a technical rationale to the entities identified in the standard. To that end, DCRT as a Transmission Owner shall ensure that the facility ratings including the applicable time duration it provides for its facilities to California ISO PC in planning models and the Transmission Register are consistent with the facility ratings data they provide to their Transmission Operator and/or RC West per the RC's SOL

Methodology and the facility ratings criteria in the ISO Planning Standards and/or the ISO TPP Study Plan.

2.1 Roles and Responsibilities

DCR Transmission, as its own TP, is responsible for maintaining all models and modeling data related to DCR Transmission's ownership of transmission facilities in the CAISO Planning Coordinator Area.

2.2 Modeling Assumptions and Responsibilities

DCR Transmission's modeling data will follow the WECC Data Preparation Manual wherever applicable. DCR Transmission will submit WECC base case modeling information in accordance with this CAISO- DCR Transmission Joint Transmission Planning Base Case Preparation Process document posted on the [CAISO web site](#). This section provides additional information on what assumptions are made and what level of detail is required for modeling the various aspects of the base cases created.

2.2.1 Transmission Project Modeling

The existing system model will be based upon as-built design and equipment test reports. Future DCR Transmission transmission projects approved by CAISO will reflect the most up-to-date information available for both scope and in-service dates.

2.2.2 Generation

Existing generator models will reflect the latest models provided by DCR Transmission. Future Generators or modifications to existing generators will be modeled based upon using the latest generator models available. Future projects that have a status of "in construction" will be modeled in future base cases, along with projects in the ISO TPP study plan.

2.2.3 Outage Information

Planned outages that are at least 6 months in duration will be modeled based upon the planned dates of outages using the outage information provided by DCR Transmission and CAISO.

2.3 Generator Owner Procedures

Any Participating Generator Owner connected to DCR Transmission Owned Facilities shall provide modeling data in accordance with applicable NERC Reliability Standards, the WECC Data Preparation Manual, the WECC Generating Unit Model Validation Guideline, and the CAISO's Business Practice Manual for Transmission Planning Process¹ to DCR Transmission

¹ <https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Transmission%20Planning%20Process>

(gridmodelingdata@lotuspartners.com) and the CAISO (gridmodelingdata@caiso.com) based on the periodicity in the NERC Reliability Standards (MODs 025, 026, & 027 & PRCs 19 & 24), WECC Generating Unit Model Validation Guideline, and Section 10 of BPM for Transmission Planning Process. Upon receipt of this data from Generator Owners and after usability is validated, these generating unit data will be included in DCR Transmission's master system modeling data.

MOD-032 explicitly requires the submission of data at least once every 13 calendar months. Therefore, at minimum, modeling data shall be submitted by the end of each calendar year, but not to exceed 13 calendar months between each submission. For data that has not changed since the last submission, a written confirmation that the data has not changed is sufficient. As a reminder, section 25.5 of the CAISO Tariff requires notification to the CAISO and DCR Transmission at least 90 calendar days in advance of making modifications to generating facilities. Please refer to that section of the Tariff and the Generator Management BPM on the CAISO website for more details.

2.4 CAISO TPP Base Case Development Process

DCR Transmission is responsible for providing its model updates to the CAISO and SCE at least once a year, during Phase 1 of each CAISO TPP planning cycle, during the timeline in the CAISO TPP Study Plan, to accurately capture DCR Transmission's system model in the TPP study cases.

2.5 WECC Base Case Development Process

For the development of WECC base cases, DCR Transmission will provide inputs to SCE, given that SCE is the area coordinator for area 24 in the WECC base case development process. DCR Transmission will also provide the WECC base case submittals to CAISO.

2.5.1 Initial Base Case Data Submittal

- a. DCR Transmission shall submit generation data for any generators in their transmission planning area and modeled within area 24 to SCE and CAISO, if applicable for the WECC base case scenarios, or if changes to the WECC base case are needed.
- b. DCR Transmission shall submit their system data, including generator data to SCE and CAISO in accordance with the WECC's Annual Compilation schedule for the requested WECC's base case scenario.
- c. All WECC base case submittals shall be provided to SCE at basecase@sce.com and CAISO at GridModelingData@caiso.com.

2.5.2 WECC's Base Cases for Base Case Review

DCR Transmission is responsible for reviewing and submitting comments to CAISO and SCE on the WECC base cases sent out for review by WECC. SCE, as the area coordinator, is responsible for submitting the review comments received by DCR Transmission to WECC in accordance with the WECC Base Case Compilation schedule. DCR Transmission will provide review comments and the appropriate signoff sheet(s) for each WECC base case review request. Review comments and signoff sheet(s) must be received by SCE prior to the stipulated deadline as communicated by WECC in the review request letter in order for them to be incorporated into the base case. DCR Transmission will also include the CAISO on WECC base case review emails.

2.6 Short Circuit Modeling Data

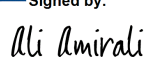
DCR Transmission maintains short circuit modeling data for their transmission planning area and will provide it to SCE, CAISO, or WECC upon request.

Version History



Version	Change	By	Date
1.0	CAISO-DCR Transmission Joint Transmission Planning Base Case Preparation Process document for MOD-032-1 Requirement R1 Implementation and Compliance, initial version	Robert Sparks	6/04/2024

Technical Review

Reviewed By	Name	Signature	Date
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Approval

Approved By	Name	Signature	Date
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CEO, Lotus Infrastructure Partners	Himanshu Saxena	DocuSigned by:  <small>5F7EC6A692DD481...</small>	10/22/2024

Appendix A. Modeling Communications

Entities responsible for providing data should send it to:

Planning Coordinator (PC) – California ISO at: GridModelingData@caiso.com

Transmission Planner (TP) – DCR Transmission at: gridmodelingdata@lotuspartners.com

Appendix B. Evidence Retention

The following evidence for demonstrating compliance with MOD-032 will be retained according to the following guidelines:

1. Maintain evidence for five years or since the last audit, whichever is longer.
2. Maintain evidence for a longer period of time if asked by the Compliance Enforcement Authority, as part of an investigation.
3. If an applicable entity is found non-compliant, it shall keep information related to the non-compliance, at a minimum, until mitigation is complete and approved.

The following documents need to be retained:

- Documentation showing that DCR Transmission and CAISO jointly developed required modeling data requirements and reporting procedures;
- Modeling requirements document;
- Posting and reporting procedures for modeling requirements documents; and
- Written notification regarding technical concerns with data submitted under R2, including the technical basis or reason for the technical concerns.