

California Independent System Operator

&

Metropolitan Water District

**Joint Transmission Planning Base Case
Preparation Process**

NERC Reliability Standard MOD-032-1

Version 1.1

February 2025

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.....	2
2.1	Roles and Responsibilities	2
2.2	Modeling Assumptions and Responsibilities.....	2
2.2.1	Transmission Project Modeling.....	2
2.2.2	Generation	3
2.2.3	Demand.....	3
2.2.4	Outage Information.....	3
2.2.5	Firm Transmission Service and Interchange	3
2.3	CAISO TPP Base Case Development Process.....	4
2.4	WECC Base Case Development Process.....	4
2.4.1	Initial Base Case Data Submittal.....	4
2.4.2	WECC’s Base Cases for Base Case Review	4
2.5	Short Circuit Modeling Data	5
Appendix A.	Modeling Communications.....	1
Appendix B.	Evidence Retention.....	1

1 Introduction

1.1 Purpose

Metropolitan Water District (MWD) and the California Independent System Operator (CAISO) entered into a Planning Coordinator Agreement dated July 21st, 2016. The purpose of this document is to (i) as required by NERC Reliability Standard MOD-032-1, Requirement 1, provide a jointly-developed process for CAISO, as Planning Coordinator (PC) and Balancing Authority (BA), and Metropolitan Water District (MWD), as Transmission Planner (TP), effective October 1, 2017, to address steady state, dynamics, and short circuit modeling data requirements and reporting procedures for the PC planning area; (ii) provide details of the assumptions for the MWD area used in the Annual CAISO Transmission Planning Process (TPP) Base Cases; and (iii) provide an overview of the process used in the development of CAISO TPP and Western Electricity Coordinating Council (WECC) Base Cases.

1.2 Overview of the Process

MWD will cooperate with the CAISO as the Planning Coordinator, and SCE as the WECC base case Area Coordinator in the participation of the WECC base case development process as defined by WECC. MWD will also annually provide CAISO TPP base case data to the CAISO. MWD will copy Arizona Electric Power Cooperatives (AEPSCO), MWD's Transmission Operator, on the base case submittals. In order to provide this data, MWD will review and update WECC base cases identified by the CAISO for the development of CAISO TPP base cases. The CAISO TPP base cases follow the CAISO TPP timeline and use the assumptions included in the CAISO TPP Study Plan.

Previously approved WECC base cases are used as the starting cases for all future cases. The base cases are modified as necessary depending upon the objective of the study and the study assumptions.

This document includes details of the assumptions used and the process followed for developing the WECC and CAISO TPP base cases. The CAISO shall make this document available to all Participating Transmission Owners (PTO)s and non-PTOs in area 24 of the WECC base cases by posting it on the CAISO's public website.

2 CAISO TPP and WECC Base Case Development Process

The CAISO TPP and WECC base case development process is completed at least once every 13 calendar months. The objective of MWD's participation in this process pursuant to this document is to keep the MWD system model up-to-date and provide consistency with changes that have occurred throughout the year.

Previously-approved WECC base cases serve as the starting cases for the CAISO TPP base cases. MWD validates the previously approved WECC base cases to ensure that they are accurate and represent up-to-date information for modeling the MWD system.

Requirement R6 of FAC-014-3 directs each transmission planning entity to use facility ratings and criteria that are equally or more limiting than those described in RC West's System Operating Limit (SOL) methodology, unless the entity provides a technical rationale to the entities identified in the standard. To that end, MWD shall provide that the facility ratings it provides to the CAISO PC, including the applicable time duration, for use in planning models and the Transmission Register are consistent with the facility ratings data MWD provides to its 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

MWD, as its own TP, is responsible for maintaining all models and modeling data related to MWD's ownership of transmission, resources and loads directly connected to MWD's transmission system. MWD will follow the data modeling requirements (steady-state and dynamics) in WECC's latest approved Data Preparation Manual (DPM).

2.2 Modeling Assumptions and Responsibilities

MWD's modeling data will follow the WECC's DPM wherever applicable. MWD will submit WECC base case modeling information (in PSLF format) in accordance with the CAISO-SCE Joint Transmission Planning Base Case Preparation Process document posted on the [CAISO website](#). 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

Existing system model will be based upon as-built design and equipment test reports. Future capacity projects approved by MWD will reflect the most up-to-date information available for both scope and in-service dates.

Future maintenance projects' in-service dates are based upon the latest information on the schedule of the maintenance projects. The maintenance projects that have a firm plan to be implemented and are either "under construction" or scheduled to be "under construction" will be modelled in the cases based upon the scope of work provided by the maintenance team.

2.2.2 *Generation*

a. Models

Existing generator models will reflect the latest models provided by MWD. Future Generators or modifications to existing generators will be modeled based upon MWD project status using the latest generator models available. Future projects that have a status of "in construction" will be modeled in future base cases. The exception to this will be for the cases that require the Renewable Portfolio Standard (RPS) needs to be modelled. If the "in construction" list of generation does not meet the RPS needs, additional generation will be modeled to meet these needs. This additional generation shall be based upon most likely to occur generation that is still moving forward.

b. Dispatch

Generation dispatch for existing units will be based either on historical information (if available) or based upon Net Qualifying Capacity (NQC) values. Future renewable generation dispatch will be based upon the CAISO TPP Study Plan for the given scenario.

2.2.3 *Demand*

MWD's demand models will follow WECC's Data Preparation Manual wherever it is applicable as well as other requirements found in the CAISO SCE MOD-032-1 Requirements posted on [CAISO web site](#).

2.2.4 *Outage Information*

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

2.2.5 *Firm Transmission Service and Interchange*

Known commitments for Firm Transmission Service and Interchange on the MWD system will be modelled.

2.3 CAISO TPP Base Case Development Process

MWD is responsible for providing its transmission system model updates to CAISO, SCE, and AEPCO at least once every 13 calendar months, usually at the beginning of the CAISO TPP, to accurately capture MWD's transmission system model in the TPP study cases.

Submittal of CAISO TPP base cases shall be provided to CAISO and AEPCO.

2.4 WECC Base Case Development Process

For the development of WECC base cases, MWD will provide modeling data to SCE, given that SCE is the area coordinator for area 24 in the WECC base case development process. MWD will also include the CAISO and AEPCO, as MWD's Transmission Operator, on WECC base case submittals.

2.4.1 Initial Base Case Data Submittal

- a. MWD shall submit its loads and generation dispatch for each WECC base case scenario to SCE, AEPCO, and CAISO in accordance with the WECC's annual Base Case Compilation Schedule.
- b. If other changes are needed to the base case models, MWD shall submit its data to SCE, AEPCO, and CAISO in accordance with the WECC's annual Base Case Compilation Schedule for the requested WECC base case scenario.
- c. MWD shall submit generation data for any generators in its transmission planning area and modeled within area 24 to SCE, AEPCO, and CAISO, if applicable, for the WECC base case scenarios, or if changes to the WECC base case are needed.
- d. All WECC base case submittals shall be provided to SCE at basecase@sce.com, AEPCO at btumarin@azgt.coop, and CAISO at GridModelingData@caiso.com.

2.4.2 WECC's Base Cases for Base Case Review

MWD is responsible for reviewing and submitting comments to the CAISO, AEPCO, and SCE on the WECC base cases sent out by WECC for review. SCE, as the area coordinator, is responsible for submitting MWD's review comments received to WECC in accordance with WECC Base Case Compilation Schedule. MWD will provide its 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 the comments to be incorporated into the base case. MWD will also include the CAISO and AEPCO on WECC Base Case review emails.

Consistent with Requirement R3 of MOD-032-1, upon receipt of written notification from the CAISO regarding technical concerns with the data submitted under MOD-032-1, Requirement R2, including the technical basis or reason for the technical concerns with the data, MWD shall respond to the CAISO as follows:

- By providing either updated data or an explanation with a technical basis for maintaining the current data;
- By providing the response within 90 calendar days of receipt, unless a longer time period is agreed upon with the CAISO.

2.5 Short Circuit Modeling Data

MWD maintains short circuit modeling data for its transmission planning area and will provide it to SCE, AEPSCO, CAISO, or WECC upon request.

Version History

Version	Change	By	Date
1.0	CAISO MWD Joint Process Document for MOD-032-1 Requirement R1 Implementation and Compliance, initial version	Charles Cheung, Mudita Suri and Edwin Tso	9-27-17
1.1	CAISO MWD Joint Process Document updated to reflect MOD-032-1 Requirement R6 implementation and compliance of FAC-014-3 and minor edits for clarity	Anuj Hiray	02-11-25

Technical Review

Reviewed By	Name	Signature	Date
Engineer, Regional Transmission South-CAISO	Anuj Hiray	Signed by: <i>Anuj Hiray</i> 699D532BC6854D2...	02/11/2025
Sr. Manager, Regional Transmission South, Infrastructure Development (CAISO)	Robert Sparks	Signed by: <i>Robert Sparks</i> F18DD60F4309448...	2/12/2025
Principal Resource Specialist Metropolitan Water District (MWD)	Nayeem Mohammad Abdullah	Signed by: <i>Nayeem Mohammad Abdullah</i> 0DEAEC4ECA51467...	12/18/2024

Approval

Approved By	Name	Signature	Date
Sr. Manager, Regional Transmission South, Infrastructure Development (CAISO)	Robert Sparks	Signed by: <i>Robert Sparks</i> F18DD60F4309448...	2/12/2025
Unit Manager - Power Compliance and Programs Metropolitan Water District (MWD)	Helen Lin	Signed by: <i>Helen Lin</i> 1372B8C2A3B141C...	12/18/2024

Appendix A. Modeling Communications

Entities responsible for providing data should send it to:

PC – ISO at: GridModelingData@caiso.com

TP – MWD at: Powercompliance@mwdh2o.com

As WECC Area Coordinator or Sub- coordinator of area 24 data, data may also be submitted to SCE at:
basecase@sce.com

Appendix B. Evidence Retention

The following evidence for demonstrating compliance with MOD-032 will be retained for a period of 4 years unless one of the following is true:

1. Last audit performed by the Compliance Enforcement Authority was over 4 years ago, then at a minimum, maintain evidence from the last audit until a new audit is performed.
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 MWD 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.