

Procedure No.	3630
Version No.	7.1
Effective Date	7/13/2023

Modeling - Scheduling ETC and TOR Rights

Distribution Restriction: None

Table of Contents

PURPOSE	1
1. Responsibilities	1
2. Scope/Applicability	
2.1. Background	2
2.2. Scope/ Applicability	2
3. PROCEDURE DETAIL	2
3.1. Scheduling ETC and TOR Rights	2
3.2. Treatment of ETC and TOR Transmission Market Schedules	3
3.3. Existing Transmission Contracts Calculator (ETCC)	4
3.4. ETC/TOR MW Rights Modifications	
4. Supporting Information	
Operationally Affected Parties	5
References	
Definitions	
Version History	
5. PERIODIC REVIEW PROCEDURE	
Review Criteria & Incorporation of Changes	
Frequency	7
APPENDIX	7

Purpose

To provide guidelines for Scheduling the use of Existing Transmission Contract (ETC) rights and, where applicable, Transmission Ownership Rights (TOR) in the CAISO Balancing Authority (BA). It also describes CAISOs Market and Interchange Scheduling system software functionality that supports these purposes.

1. Responsibilities

CAISO	The CAISO Is the single OASIS site administrator for all transmission facilities under its operational control and is responsible for independently calculating OTC and ATC.
CAISO Day-Ahead Operations Engineer	On a daily basis, notifies PTOs via email of the PTO-specific ETC/TOR DAM entitlements and the OTCs used to determine each ETC allocation. ETC/TOR reservations are then used by the CAISO to calculate ATC for each Rated Path (Intertie). ATCs for each Intertie are posted to OASIS.

This document is controlled when viewed electronically. When downloaded or printed, this document becomes UNCONTROLLED.



Procedure No.	3630
Version No.	7.1
Effective Date	7/13/2023

Modeling - Scheduling ETC and TOR Rights

Distribution Restriction:
None

Scheduling Coordinator (SC) Non-Participating Transmission Owner(s) Participating Transmission Owner (PTO)	 Notify the CAISO of any errors identified in the calculation/allocation of ETC/TOR reservation quantities or any misinterpretations of their ETC/TOR instructions reflected by these calculations. Non-Participating TO may request ETCC information to verify that the CAISO has properly incorporated their ETC/TOR instructions. Review their ETC/TOR instructions and the respective ETCC calculation and then advise the CAISO regarding any necessary modifications, using the CAISO TRTC change process.
TOR Owner Existing Transmission Contracts or Existing Contracts (ETC)	If a contract rights owner questions their ETC/TOR allocation then notify their PTO directly.
CAISO Day-Ahead Market Desk	Run process to post Hourly TR Capacity to the Transmission Interface Usage report in OASIS.

2. Scope/Applicability

2.1. Background

Describes ETC and TOR.

2.2. Scope/ Applicability

This procedure applies to ETC and TOR.

3. Procedure Detail

3.1. Scheduling ETC and TOR Rights

The following provides a description of the Scheduling process for ETC and TOR rights:

The use of ETC or TOR transmission rights must be Scheduled in both CAISO Market and Interchange Scheduling systems by a responsible SC. The responsible SC is determined by the PTO or Non-Participating TO, which notifies the CAISO using TRTC instructions. The responsible SC Schedules ETC/TORs using market resources registered as source or sink



Procedure No.	3630
Version No.	7.1
Effective Date	7/13/2023

Modeling - Scheduling ETC and TOR Rights

Distribution Restriction: None

for the ETC/TOR rights, in the CAISO Master File following existing SIBR rules for these selfschedules.

Any transfer or sale of ETC rights must first be coordinated by the ETC rights holder through the PTO. The PTO modifies the TRTC instructions and submits them to the CAISO.

PTOs and Non-Participating TOs may choose to sell all or a portion of their TORs hourly, on their own OASIS sites. An entity that purchases TOR rights must coordinate the use of this PTO or Non-Participating TOs transmission with the responsible SC for the TOR rights owner. The TOR rights owners' SC then Schedules the use of the TOR rights, on behalf of the party that purchased this transmission from the PTO or Non-Participating TOs.

Note: If the PTO or Non-Participating TOs sell TORs to another party, on a long-term basis, the new PTO may reassign all/part of its rights to the purchaser's SC to Schedule use directly with the CAISO. The new PTO makes such assignment by revising its TRTC instructions and submitting them to the CAISO, accordingly.

ETC/TORs need to be Scheduled in Day-Ahead Market (DAM) and Real-Time Market (RTM) for priority and settlements treatment. In many cases, ETC/TOR rights can be Scheduled after the close of the CAISOs RTM. To Schedule the use of these "Real-Time" rights (after the close of the HASP/RTM), the responsible SC must contact the Interchange Scheduler by telephone, or use a separately agreed upon process. The exact cutoff times for Scheduling ETC/TOR rights in Real-Time vary according to the individual ETC/TOR contract. MSS entities with load-following capabilities may also Schedule up until 20 minutes before the hour.

3.2. Treatment of ETC and TOR Transmission Market Schedules

The following provides a description of the treatment of ETC and TOR transmission Market Schedules:

Scheduled use of ETC/TOR rights within their effective MW allocations are not assessed CAISO Congestion and/or access charges, as applicable. Scheduled use of ETC/TOR rights within their effective MW allocations have priority rights in the CAISO transmission Markets and typically are not curtailed by the Market optimization software until all other Schedules using CAISO Market transmission service have been curtailed.



Procedure No.	3630
Version No.	7.1
Effective Date	7/13/2023

Modeling - Scheduling ETC and TOR Rights

Distribution Restriction: None

3.3. Existing Transmission Contracts Calculator (ETCC)

The following provides a description of the Existing Transmission Contracts Calculator (ETCC):

In accordance with TRTC instructions and existing market rules, the ETCC calculates the amount of firm transmission Capacity in MW to be "reserved back" for each individual ETC/TOR right, for each hour, each trade Day and each market .

Contract Reference Numbers (CRNs) are used as flags in both the CAISO Market and Interchange Scheduling systems to identify these ETC and TOR Schedules for special Scheduling priority and Settlements treatment.

The amount of Operational Transfer Capability (OTC) for each branch group and/or ITC, inclusive of the Interties, is determined by CAISO Outage Coordination, based upon operating conditions. Outage Coordination loads the OTCs into the ETCC.

CAISO Day-Ahead Operations Engineer uses the ETCC to calculate the amount of transmission Capacity entitlement (allocation) for each ETC/TOR CRN (right) in accordance with the curtailment calculations provided by the PTO or the Non-Participating TO.

The total ETC/TOR entitlements per branch group are published to the OASIS System by the CAISO Day-Ahead Operations Engineer Individual ETC/TOR rights (MW) CRN allocations are published for each responsible SC, via SIBR.

3.4. ETC/TOR MW Rights Modifications

Based on CAISO Tariff section 16 and 17, TRTC modifications need to be submitted by the PTO and Non-Participating TO.

Non-Participating Transmission Owner(s), Participating Transmission Owner (PTO)

- 1. **Complete** the TRTC instructions Template.
- 2. Send the modified TRTC instructions to TRTC@caiso.com

CAISO Transmission Rights and Transmission Curtailment (TRTC) Administrator

- 1. **Review** the TRTC instruction and **verify** they are complete and accurate.
 - Once changes have been reviewed and approved,
 - Notify PTO or Non-Participating TO of the acceptance of the revised TRTC instructions.
 - Initiate change management request for Master File if needed.



Procedure No.	3630
Version No.	7.1
Effective Date	7/13/2023

Modeling - Scheduling ETC and TOR Rights

Distribution Restriction:

CAISO Transmission Rights and Transmission Curtailment (TRTC) Administrator

- 2. **Notify** the following CAISO teams about the TRTC instruction updates and intended effective date:
 - Market Operators
 - Interchange Scheduling & Transmission Operators
 - Operations Planning Engineers
 - Congestion Revenue Rights (CRR).
- 3. **Update** Master File (MF) for requested TRTC changes, if needed; following regular MF update timeline and procedure.
- 4. **Notify** PTO/ Non-Participating TO that TRTC change process is complete per request.

CAISO Day-Ahead Operations Engineer

Update ETCC tool calculation:

- 1. **Request** ETCC admin to update ETC and/or TOR MW per PTO/ Non-Participating TO requested adjustments If a contract change that requires modification on calculation of the contract, request ETCC admin to update calculation of contract.
- 2. **Confirm** with PTO/Non Participating TO that the changes are reflected correctly in OASIS for ETCC limits and/or SIBR reports for CRN limits.
- 3. Review and Make requested changes in ETCC spreadsheet for Path 15 and VEA.
- 4. **Submit** E2T to update spreadsheets in PI process book.

Operations will update spreadsheet for ETCC on EOR and WOR.

Note: The ETCC tool has most calculations included, only Path 15, Path 26, VEA and EOR/WOR require a separate spreadsheet to calculate share on contract during outages.

CAISO Day-Ahead Market Desk

1. **Run** process to post Hourly TR Capacity to the Transmission Interface Usage report in OASIS.

4. Supporting Information

Operationally Affected Parties

Shared with the Public.



Procedure No.	3630
Version No.	7.1
Effective Date	7/13/2023

Modeling - Scheduling ETC and TOR Rights

Distribution Restriction: None

References

Resources studied in the development of this procedure and that may have an effect upon some steps taken herein include but are not limited to:

CAISO Tariff	Sections 16 and 17
CAISO Operating Procedure	
NERC Requirements	
WECC Criterion	
Other References	

Definitions

Unless the context otherwise indicates, any word or expression defined in the Master Definitions Supplement to the CAISO Tariff shall have that meaning when capitalized in this Operating Procedure.

The following additional terms are capitalized in this Operating Procedure when used as defined below:

CRR Obligation	A financial instrument that entitles the holder to a CRR payment when Congestion is in the direction of the CRR Source to CRR Sink specification and imposes on its holder a CRR charge when Congestion is in the opposite direction of the CRR Source to CRR Sink specification.
ETC	The contracts, which grant transmission service rights in existence on the ISO Operations Date (including any contracts entered into pursuant to such contracts) as, may be amended in accordance with their terms or by agreement between the parties thereto from time to time.
TOR	The ownership or joint ownership right to transmission facilities, within the CAISO Balancing Authority Area of a Non-Participating TO that has not executed the Transmission Control Agreement, which transmission facilities are not incorporated into the CAISO Controlled Grid.
TRTC	Transmission Rights and Transmission Curtailment - Operational directives developed between Existing Rights Holders and the Participating TO, submitted to the CAISO by the Participating TO, unless otherwise agreed to by the Participating TO and the Existing Rights Holder to facilitate the accommodation of Existing Rights in the CAISO Markets.



Procedure No.	3630
Version No.	7.1
Effective Date	7/13/2023

Modeling - Scheduling ETC and TOR Rights

Distribution Restriction: None

Version History

Version	Change	Date
6.5	Updated section 3.4 for ISO Day-Ahead Operations Engineer actions. Updated each step to reflect that ETC reservation table to calculate CRN and ETC is no longer needed. ETCC tool has most calculations included, only Path 15, Path 26, VEA and EOR/WOR require a separate spreadsheet to calculate share on contract during outages. Formatting and grammar corrections.	2/06/18
7.0	Periodic Review: Minor format and grammar updates. Removed version history prior to 5-years. Updated review criteria for procedure reference and updated frequency. Added document controlled footer.	10/08/20
7.1	Periodic Review: Updated from ISO to CAISO, minor formatting and grammar edits.	7/13/23

5. Periodic Review Procedure

Review Criteria & Incorporation of Changes

There are no specific criteria for reviewing or changing this document, follow instructions in CAISO Operating Procedure 5510.

Frequency

Every three (3) years.

Appendix

3630A ETC/TOR Instructions