 California ISO	Operating Procedure	Procedure No.	3640
		Version No.	8.1
		Effective Date	1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None	


Table of Contents

Purpose	1
1. Responsibilities	2
2. Scope/Applicability	2
2.1 Background	2
2.2 Scope/ Applicability	3
3. Procedure Detail	3
3.1 CAISO Day-Ahead Operations Engineer or CAISO Operations Planning Engineer	3
3.1.1 One Day Before the Operating Day	4
3.1.2 Two Days Before the Operating Day	5
3.2 CAISO Transmission Desk	5
3.2.1 Real-Time Events	5
3.2.2 Resolving Negative ATC	6
3.2.3 ETCC Changes and Updates	7
4. Supporting Information	7
Operationally Affected Parties	7
References	8
Definitions	8
Version History	9
5. Periodic Review Procedure	10
Review Criteria & Incorporation of Changes	10
Frequency	10
Appendix	10

Purpose

Provides guidance for managing path de-rates and re-rates using the Existing Transmission Contract Calculator (ETCC), proper communication between the affected parties when a de-rate or re-rate occurs, and Operator instructions for managing ETC and TOR preexisting transmission contract reservations on the rated paths (Interconnections) and on internal Congestion paths.

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

 California ISO	Operating Procedure	Procedure No.	3640
		Version No.	8.1
		Effective Date	1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None	

1. Responsibilities


CAISO Operations Planning Engineer	Update TTC, ETC or contract information as directed. Updates the ETCC for changes to path rating Hourly TTCs Scheduled by 4 days out from the present day.
CAISO Day-Ahead Operations Engineer	Enters Outage notes in the Outage Short Description that limit a path's Hourly TTC, as soon as practical. Calculates ETC/TOR MW allocation values for 1 to 2 days out. Verify and publish TTC/ETC/ATC information to OASIS for next operating day and D+2. Update TTC, ETC, TOR or contract information as needed for D+3, D+2 and DA.
CAISO Transmission Desk	Enter changes in ETC values into ETCC for current or next Operating Day. Notify Market Participants through a Market Message for OASIS of Hourly TTC Path rating changes for current Operating Day that affect Market Participants and affected outage days. Verify correct TTC/ETC/ATC data published to OASIS & Market Systems.

2. Scope/Applicability

2.1 Background

The **California** ISO (**CAISO**) updates the ETCC to reflect Outages that de-rate Interchange path ratings over the next 30 days. Hourly TTC path ratings and Responsible Participating Transmission Owners (RPTO) curtailment instructions are used to calculate ETC/TOR MW allocation values. The resultant ETC, TOR and ATC (Market transmission) values are used to run the Day-Ahead and HASP Markets. These ETC/TOR/ATC values are published to OASIS for Market Participant's use.

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

 California ISO	Operating Procedure	Procedure No.	3640
		Version No.	8.1
		Effective Date	1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None	

2.2 Scope/ Applicability

This procedure applies to updates to ETCC for any time frame. They can be fully coordinated with other affected Transmission Operators and Balancing Authority Areas, and they are entered into all systems affected by the change.

Note: Path rating changes (due to an Outage on the CAISO Controlled Grid) submitted after 09:00 will not be included in the Day-Ahead market.

3. Procedure Detail

3.1 CAISO Day-Ahead Operations Engineer or CAISO Operations Planning Engineer


Take the following actions to update the ETCC:

Note: The CAISO Day-Ahead Operations Engineer (DAOE) prepares work one (1) day out from present day (updating all requests from Trade Date plus 1 day (Day 1) and the following two (2) days through Day 4 after 15:00, with their primary focus on Day 1. The default Total Transmission Capacity (TTC) MW values are determined by Regional Transmission and any required MW changes to the ETCC default settings are made by the Day-Ahead Operations Engineer.

Note: Operations Planning Engineers process all requests made prior to 1500 four (4) days out from present day (updating all values from Trade Date plus four (4) days (Day 4) and the following six (6) days through Day 7, with their primary focus on requests made prior to 1500 on Day 4. The default Total Transmission Capacity (TTC) MW values are determined by Regional Transmission and any required MW changes to the ETCC default settings are made by Operations Planning Engineers, as needed, based on the outage studies or any potential changes in the system.

CAISO Day-Ahead Operations Engineer
<ol style="list-style-type: none"> 1. Associate paths to the correct Outages, as necessary, and enter the Study Limit values in ETCC. 2. Review Path 15 derate due to outages and make changes per CAISO Operating Procedure 6310 Path 15 (Midway – Los Banos) and CAISO Desktop Procedure OES-OERT-006. 3. Manually enter VEA ITC limits into ETCC for Day 1 and Day 2, using the “Upload Forecast” button in the ATC/ETC Summary. <ul style="list-style-type: none"> • Verify the same.

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

 California ISO	Operating Procedure	Procedure No. 3640
		Version No. 8.1
		Effective Date 1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None


CAISO Day-Ahead Operations Engineer
<p>4. Update and Publish to send all ETCC MW changes for days 1-7 to the market systems before 1600 each day.</p> <p><i>Note: This should be done whether or not ETCC changes were published earlier in the day. This must be completed each day for all days that are transferred to Real-Time operations. By "Publishing" the ETC data, the ETCC application will automatically copy the 30-day Branch Group Outage Information to OASIS.</i></p>

3.1.1 One Day Before the Operating Day

Take the following actions using the ETCC, one (1) day before the Operating Day:

CAISO Day-Ahead Operations Engineer
<p><i>Note: The ETCC automatically recalculates ETC and TOR rights allocations, by tie, based primarily upon TTC.</i></p> <ol style="list-style-type: none"> Review ETCCs MW changes one (1) day before the Operating Day. Adjust associated ETCCs, as required, based upon RPTO and NPTO instructions for administration of their contracts on each specific tie. Modify WAPA and/or CDWR ETC MW "CRN" values, per their direction and notification as Responsible SC, <u>by 08:30 PPT.</u> For Path 15 TTC changes, <ul style="list-style-type: none"> Follow CAISO Operating Procedure 6310 Path 15 (Midway – Los Banos) and CAISO Desktop Procedure OES-OERT-006. If Path 15 changes are for the current day, <ul style="list-style-type: none"> Inform the CAISO Real-Time Transmission Dispatcher to update the ETCC accordingly Each day: "Update" <u>and</u> "publish" to send all ETCC MW changes for days 1-7 to the market systems. <p><i>Note: This should be done whether or not ETCC changes were published earlier in the day. This must be completed each day for all days that are transferred to Real-Time operations. By "Publishing" the ETC data, the ETCC application will automatically copy the 30-day Branch Group Outage Information to OASIS.</i></p>

CAISO Day-Ahead Market Desk
<ol style="list-style-type: none"> Verify ETC data was pushed and published correctly.

 California ISO	Operating Procedure	Procedure No. 3640
		Version No. 8.1
		Effective Date 1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None

3.1.2 Two Days Before the Operating Day

Take the following actions, after the 15:30 meeting to set up ETCs, 2 days out:


CAISO Day-Ahead Operations Engineer
<ol style="list-style-type: none"> 1. Complete the ETC calculations for two (2) days out. 2. Run Market Setup manually each day, for seven (7) days from D+2 on a rolling basis <u>and</u> 3. Publish ETCC. 4. Run Path 15 calculators for any TTC de-rates or re-rates on Path 15 or DCPD Production changes <u>and</u> 5. Enter the corresponding Path 15 ETC CRN values into the ETCC, per CAISO Operating Procedure 6310 Path 15 (Midway – Los Banos) and CAISO Desktop Procedure OES-OERT-006. 6. Check the ETC calculations <u>and</u> 7. Ensure no negative ATCs are calculated for two (2) days out.

3.2 CAISO Transmission Desk

3.2.1 Real-Time Events

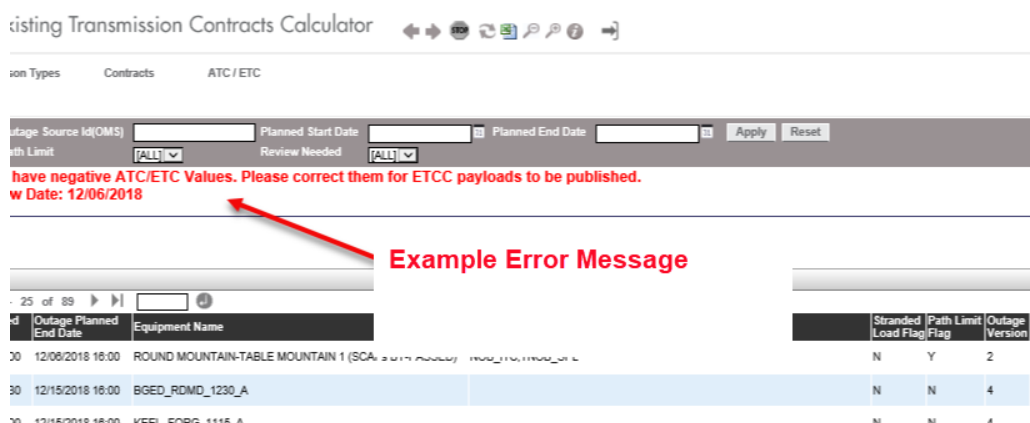
Take the following actions for all events that occur in the Real-Time:

CAISO Transmission Desk
<ol style="list-style-type: none"> 1. If a de-rate occurs mid-hour, <ul style="list-style-type: none"> • Enter the de-rate into the ETCC starting with <u>that</u> hour. 2. If a re-rate occurs mid-hour, <ul style="list-style-type: none"> • Enter the re-rate into the ETCC starting with the <u>next hour</u>. 3. If a de-rate or a re-rate occurred in the past (i.e. no notification was made to the CAISO in the same hour), <ul style="list-style-type: none"> • Enter the de-rate or re-rate into the ETCC starting with the <u>next hour</u>. <p>Caution: <i>Transmission Dispatchers must act when tags are accepted on a tie above the current ETC. There are settlements implications when a tag is accepted, but the ETC was not properly modified.</i></p>


 California ISO	Operating Procedure	Procedure No. 3640
		Version No. 8.1
		Effective Date 1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None

3.2.2 Resolving Negative ATC

CAISO Service Desk
<p>A monitor runs at the top of the hour to notify through phone and email about the ATC/ETC < 0.</p> <p><u>Any changes</u> to the notification will <u>need to be communicated</u> to the CAISO Service Desk.</p> <p>1. Alerts will be sent out in reference to the following timeframes:</p> <ul style="list-style-type: none"> • Within 3 hours – <ul style="list-style-type: none"> ○ Call and Email, CAISO Real-Time Ops Trans ○ Email Copy, ETCC Support • 3 hours to 2 days – Email, <ul style="list-style-type: none"> ○ CAISO Real-Time Ops Trans ○ Email Copy, ETCC Support • 2 to 3 days – Email, <ul style="list-style-type: none"> ○ OEs-RT • 4 days to 2 weeks – Email, <ul style="list-style-type: none"> ○ OEs-Planning ○ Copy OEs-RT

CAISO System Operator (Real-Time / Operations Engineer)																								
<p>There is a notification message on the ETCC landing page, Outage Summary Page, which mentions the ATC/ETC values are negative for a certain path on specific dates and these values <u>need to be addressed</u> for ETCC to broadcast.</p> <p>This error message will only be displayed on the Outage Summary Page.</p>  <p style="color: red; text-align: center;">Example Error Message</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>id</th> <th>Outage Planned End Date</th> <th>Equipment Name</th> <th>Stranded Load Flag</th> <th>Path Limit Flag</th> <th>Outage Version</th> </tr> </thead> <tbody> <tr> <td>30</td> <td>12/06/2018 16:00</td> <td>ROUND MOUNTAIN-TABLE MOUNTAIN 1 (SCA)</td> <td>N</td> <td>Y</td> <td>2</td> </tr> <tr> <td>30</td> <td>12/15/2018 16:00</td> <td>BGED_RDMD_1230_A</td> <td>N</td> <td>N</td> <td>4</td> </tr> <tr> <td>30</td> <td>12/15/2018 16:00</td> <td>KEEL_FORG_1115_A</td> <td>N</td> <td>N</td> <td>4</td> </tr> </tbody> </table>	id	Outage Planned End Date	Equipment Name	Stranded Load Flag	Path Limit Flag	Outage Version	30	12/06/2018 16:00	ROUND MOUNTAIN-TABLE MOUNTAIN 1 (SCA)	N	Y	2	30	12/15/2018 16:00	BGED_RDMD_1230_A	N	N	4	30	12/15/2018 16:00	KEEL_FORG_1115_A	N	N	4
id	Outage Planned End Date	Equipment Name	Stranded Load Flag	Path Limit Flag	Outage Version																			
30	12/06/2018 16:00	ROUND MOUNTAIN-TABLE MOUNTAIN 1 (SCA)	N	Y	2																			
30	12/15/2018 16:00	BGED_RDMD_1230_A	N	N	4																			
30	12/15/2018 16:00	KEEL_FORG_1115_A	N	N	4																			

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

 California ISO	Operating Procedure	Procedure No. 3640
		Version No. 8.1
		Effective Date 1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None

CAISO System Operator (Real-Time / Operations Engineer)
<ol style="list-style-type: none"> If an error message is received indicating Negative ATC for a trade date: <ul style="list-style-type: none"> Identify the branch group with the negative values <u>and take</u> the following steps: <ul style="list-style-type: none"> Click on ATC/ETC <u>and</u> Use the CRN Originals and Adjustments tab to identify the hourly ATC values associated with the error message. Update the OTC values in the corresponding outage record in ETCC. <p><i>Note: For the TRACY230_BG line, refer to CAISO Operating Procedure 8530 New Melones Pseudo Tie.</i></p> Make all other routine notifications unrelated to ETCC or market actions taken.

3.2.3 ETCC Changes and Updates

Take the following actions to enter new Outage information into the ETCC:


CAISO Transmission Desk
<ol style="list-style-type: none"> Associate path(s) to the appropriate outages using ETCC. Verify that changes reflect on OASIS. If the ETCC changes have a market impact, <ul style="list-style-type: none"> Send a market message. E-mail Outage entry to “ETC Changes Notification” and “OEs-RT” distribution list (which notifies all necessary departments).

4. Supporting Information

Operationally Affected Parties

Shared with the Public.

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

 California ISO	Operating Procedure	Procedure No.	3640
		Version No.	8.1
		Effective Date	1/12/2021
Existing Transmission Contract Calculator Update		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 23 and 30
CAISO Operating Procedures	6310 Path 15 (Midway – Los Banos) 8530 New Melones Pseudo Tie
NERC Requirements	MOD-001-1a R2 MOD-029-2a R1
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:

ATC (Available Transfer Capability)	A measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses (ETC & TOR reservations). ATC is defined as the Total Transfer Capability (TTC), less the Transmission Reliability Margin (TRM), less the sum of preexisting transmission commitments (which includes ETC & TOR) and the Capacity Benefit Margin (CBM).
CRN	Contract Reference Number
ETC	Existing Transmission Contract
NPTO	Non-Participating Transmission Owner
Publish	Publishes the active entitlements/volumes associated with the selected Operating Date. <i>Note: There is a seven (7) day publish that publishes for the Operating Date + 6.</i>
Publish 30-Day OASIS	Publishes the Outage Equipment description, Outage text, Transmission Interface (limit), Direction, Start hour, End hour, and line ratings. <i>Note: This publish does not contain the entitlements or volumes.</i>

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


 California ISO	Operating Procedure	Procedure No.	3640
		Version No.	8.1
		Effective Date	1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None	

RPTO	Responsible Participating Transmission Owner
TOR	Transmission Ownership Right
TTC (Total Transfer Capability)	Total Transfer Capability defined as the amount of electric power that can be moved or transferred reliably from one area to another area of the interconnected transmission system by way of all transmission lines (or paths) between those areas under specified system conditions.
Update	<p>This commits changes for Outage notes that have been entered and updates the Outage Sheet.</p> <p>Note: Where multiple notes exist for a given Interchange Name (Path), the most restrictive will apply.</p>

Version History

Version	Change	Date
6.7	Changed "SLIC entry" to "Outage entry" in Sections 3.3.3, 3.3.4 and 3.3.5. Changes throughout reflecting roles changed in Operations Planning. Updated calculator references.	2/27/2015
7.0	Periodic review: Section 3.1 & 3.2: Revised due to role/responsibility changes. Changed the role names used in this procedure to their new role names. Changed all references from CAISO to ISO. Updated formatting and grammar.	2/03/2017
7.1	Updated procedure to add language/steps from 3640A into this procedure, resulting in the retirement of 3640A (as it relates to Path 15).	6/22/2017
7.2	Updated procedure to remove all references of 3640A, as this procedure was retired on 6/22/2017. Updated formatting and grammatical improvements.	9/28/2017
7.3	Responsibilities Section & Sections 3.1 & 3.2: Various updates due to the implementation of the new ETCC tool. Replaced Peak RC with the RC. Minor format and grammar updates throughout. Removed version history prior to 5-years.	1/16/2019
7.4	Section 2.2: Added note regarding path rating changes after 9:00, for clarity.	1/25/2019
7.5	Section 3.2.1: Updated Caution note, removing reference to Interchange Scheduler. Minor format and grammar updates.	4/29/2019

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

 California ISO	Operating Procedure	Procedure No.	3640
		Version No.	8.1
		Effective Date	1/12/2021
Existing Transmission Contract Calculator Update		Distribution Restriction: None	

Version	Change	Date
8.0	Periodic Review: Updated section 3.2.2 Resolving Negative ATC. Removed “the RC” from Operationally Affected Parties since procedure is shared with public. Minor edits and formatting for consistency. Removed history prior to 5-years.	12/01/2020
8.1	Updated Section 3.2.2 Resolving Negative ATC. Updated all ISO references to CAISO. Added CAISO Tariff and NERC references.	1/12/2021

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

3640B MEADELDORD_BG, MEAD_ITC and MEADVEA_BG ETCC Administration

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