2023 Interconnection Process Enhancements Track 2: Final Proposal

Stakeholder Workshop

Addendum on the final proposal

May 16, 2024

Housekeeping reminders

- This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO's permission.
- This collaborative meeting are intended to stimulate open dialogue and engage different perspectives.
- Please keep comments professional and respectful.
- Please try and be brief and refrain from repeating what has already been said so that we can manage the time efficiently.
- If you need technical assistance during the meeting, please send a chat to the event producer

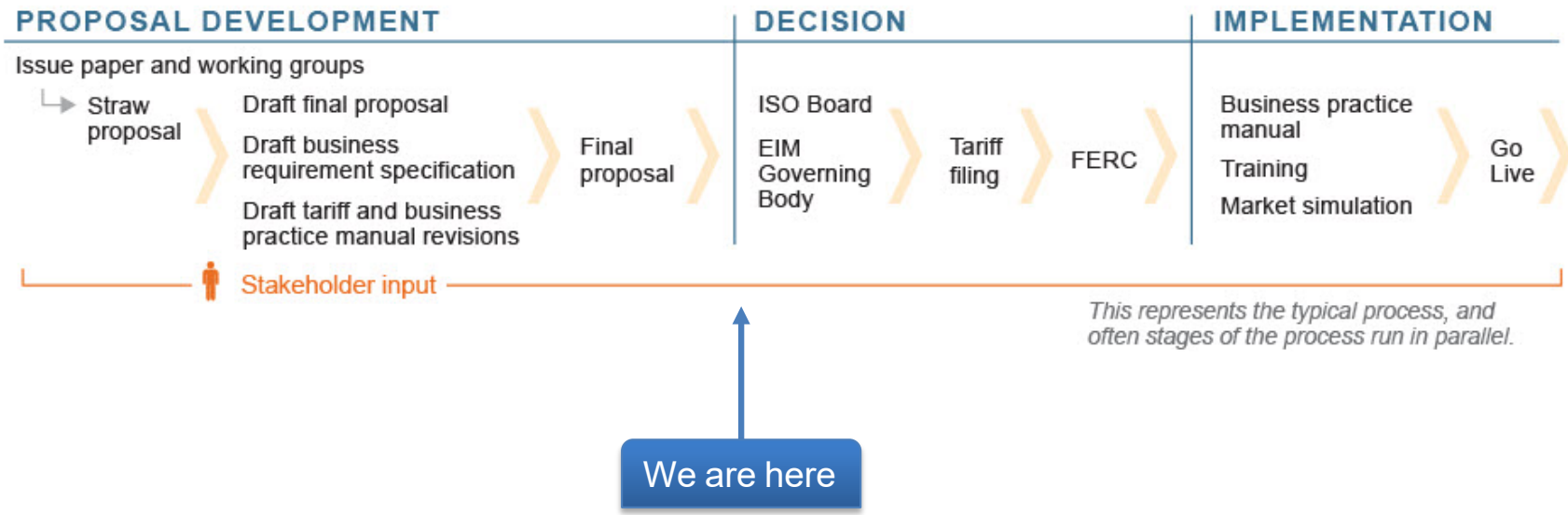
Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon  located on the bottom of your screen.
  - **Note**: *3 only works if you dialed into the meeting.
  - Please remember to state your name and affiliation before making your comment.
- You may also send your question via chat to Brenda Corona or to all panelists.

Agenda

Time	Topic	Presenter
1:00-2:30pm	Implementation of zonal approach	Binaya Shrestha and Robert Sparks
2:30-4:00pm	Addendum topics • Scoring criteria • Treatment of Energy Only resources	Danielle Mills and Bob Emmert
4:00-4:50pm	Overview of Order No. 2023 Compliance Filing	Bill Weaver
4:50-5:00pm	Next steps	Danielle Mills and Yelena Kopylov-Alford

CAISO Policy Initiative Stakeholder Process



THE ZONAL APPROACH

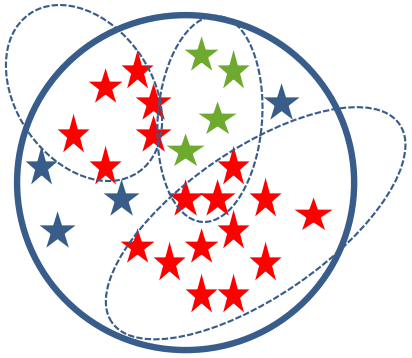
Clarifications on the Zonal Approach and Constrain-Based Available Capacity

- Discussion topics:
  - Process of determining TPD or Merchant zone
  - Process of determining FCDS projects in a TPD zone that can move forward to the scoring process
  - Process of determining FCDS projects in a TPD zone that can move forward to study process

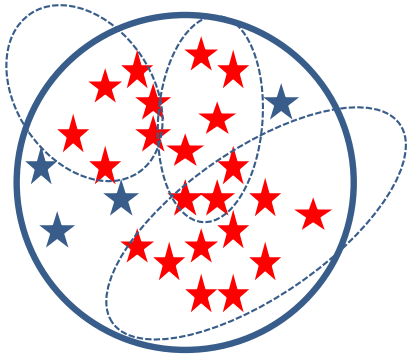
Process of determining TPD or Merchant zone

- Excerpt from the Final Proposal relating to this topic:
  - To address these issues, the ISO is modifying its methodology for determining the amount of available capacity for each zone. The ISO will base this determination on the availability of capacity associated with the known constraints within each zone. This method will provide a more accurate and transparent determination of available capacity within a zone and for determining what zones are TPD option zones and which are Merchant option zones. The CPUC resource portfolio will continue to inform the transmission plan, which determines the amount of capacity on the system and in the zones.

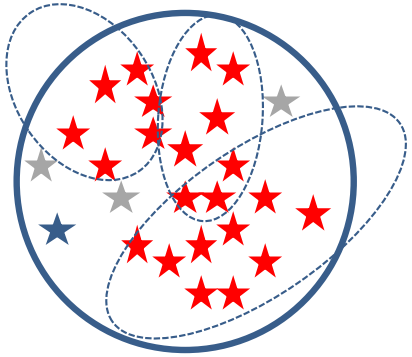
Process of determining TPD or Merchant zone



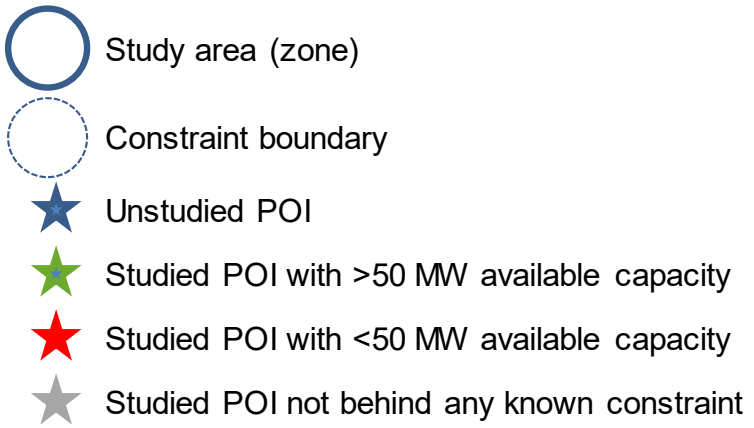
TPD Zone



Merchant Zone



TPD Zone



Process of determining Energy Only zone

>0 MW EO resource in CPUC base portfolio or non-CPUC LSE resource plan

EO Reimbursement Option Zone

- subject to scoring and selection
- can also chose non-reimbursement option in a reimbursement zone and not be subject to scoring.

No need for EO resources identified in CPUC or non-CPUC LSE resource plan

EO Non-Reimbursement Option Zone

- not subject to scoring

ISO will allow projects of any technology in these EODS= zones.

2034 – Mapped Total Resources (In-Dev & Generic)

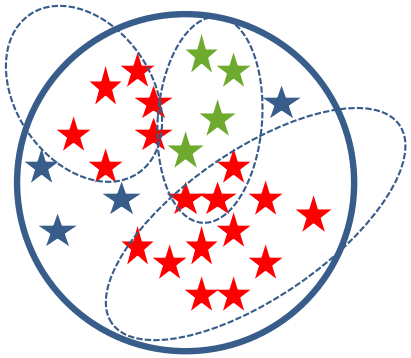
CAISO Study Area	Geothermal	Biomass	Wind			OOS Wind	Offshore Wind	Distributed Solar	Solar			Li_Battery			LDES	Total 2034 Resources
	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)	Total (MW)	FCDS (MW)	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)	Total (MW)	4hr - FCDS (MW)	8hr -FCDS (MW)	Total (MW)	FCDS (MW)	(MW)
PG&E North of Greater Bay Study Area	144.0	97.5	777.50	319.50	1,097	-	931	37	275	320	595	293	88	382	5	3,288
PG&E Greater Bay Study Area	-	24.6	688	90	778	-	-	40	-	100	100	829	212	1,040	-	1,983
PG&E Fresno Study Area	-	20.2	394	96	490	-	-	66	2,636	869	3,505	1,554	200	1,754	130	5,966
PG&E Kern Study Area	-	18.0	300	10	310	-	2,924	73	680	1,301	1,981	777	142	919	-	6,224
SCE Northern Area	-	1.0	564	16	580	-	-	5	1,633	1,653	3,286	3,240	170	3,409	458	7,739
SCE Metro Study Area	-	5.6	-	-	-	-	-	27	-	-	-	1,795	167	1,962	-	1,994
SCE North of Lugo Study Area	-	1.5	310	50	360	-	-	11	672	910	1,582	716	90	806	-	2,761
East of Pisgah Study Area	875.0	-	620	-	620	3,965	-	-	1,075	1,565	2,640	1,684	180	1,864	-	9,964
SCE Eastern Study Area	790.0	2.6	224	100	324	2,131	-	-	810	2,649	3,459	2,680	270	2,950	-	9,656
SDG&E Study Area	160.0	-	1,325	239	1,564	-	-	1	700	882	1,582	1,390	100	1,490	437	5,294
Total 2034 Resources:	1,969.0	171.0	5,203	921	6,123	6,096	3,855	260	8,481	10,248	18,729	14,958	1,618	16,576	1,030	54,808

2039 – Mapped Total Resources (In-Dev & Generic)

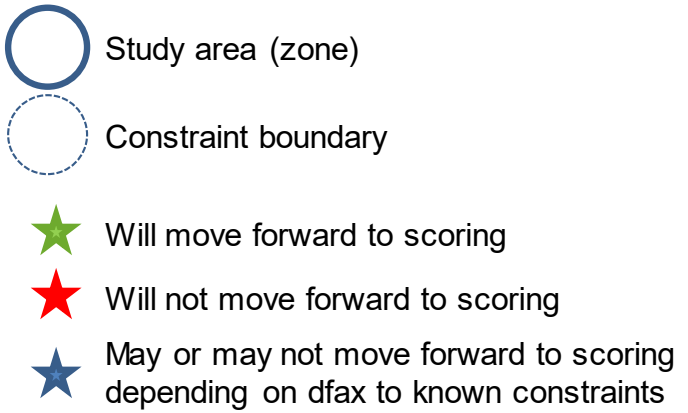
CAISO Study Area	Geothermal	Biomass	Wind			OOS Wind	Offshore Wind	Distributed Solar	Solar			Li_Battery			LDES	Total 2039 Resources
	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)	Total (MW)	FCDS (MW)	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)	Total (MW)	4hr - FCDS (MW)	8hr -FCDS (MW)	Total (MW)	FCDS (MW)	(MW)
PG&E North of Greater Bay Study Area	144.0	97.5	1,677.9	319.5	1,997	-	1,607	37	430	1,115	1,545	293	488	782	5	6,214
PG&E Greater Bay Study Area	-	24.6	688	90	778	1,500	-	40	470	215	685	879	822	1,700	-	4,728
PG&E Fresno Study Area	-	20.2	394	96	490	-	-	66	3,027	3,404	6,430	1,669	1,607	3,276	130	10,412
PG&E Kern Study Area	-	18.0	300	10	310	-	2,924	73	1,096	2,061	3,096	777	682	1,459	-	7,879
SCE Northern Area	-	1.0	564	16	580	-	-	5	1,634	3,017	4,651	3,240	734	3,974	458	9,669
SCE Metro Study Area	-	5.6	-	-	-	-	-	34	-	-	-	1,845	447	2,292	-	2,331
SCE North of Lugo Study Area	-	1.5	310	50	360	-	-	27	752	1,258	2,010	746	265	1,011	-	3,410
East of Pisgah Study Area	875.0	-	620	-	620	4,060	-	-	1,200	3,030	4,230	2,188	696	2,884	-	12,669
SCE Eastern Study Area	790.0	2.6	224	100	324	3,536	-	-	1,610	4,224	5,834	2,680	1,070	3,750	-	14,236
SDG&E Study Area	160.0	-	1,325	239	1,564	-	-	1	700	1,219	1,919	1,390	305	1,695	487	5,826
Total 2039 Resources:	1,969.0	171.0	6,103	921	7,023	9,096	4,531	283	10,858	19,541	30,399	15,707	7,115	22,822	1,080	77,374

Process of determining FCDS projects in a TPD zone that can move forward to the scoring process

- Scoring process is only applicable for FCDS projects in TPD zone
- Excerpt from the Final Proposal relating to this topic:
  - The ISO will check projects seeking to interconnect in TPD option zones to determine if their POI are behind any known constraint with no available transmission capacity. Projects with POI behind no known constraints or constraints with some available transmission capacity move forward.



TPD Zone



Process of determining FCDS projects in a TPD zone that can move forward to study process

- Excerpt from the Final Proposal relating to this topic:
  - Using the project's scores, the ISO will determine the projects that are eligible for study based on the 150% of available or planned transmission capacity behind each known constraint.
    - In the case of scores being tied and not enough available transmission capacity for all tied projects to be selected, project's DFAX will be used to break the ties.
    - Any ties that remain due to having same DFAX are designated to move into the auction process.
- Projects will be added one by one in descending order of their scores so that it is unlikely to hit more than one marginally binding constraint at the same point in the loading order

Process of determining FCDS projects in a TPD zone that can move forward to study process

- High-level process of determining FCDS projects in a TPD zone that can move forward to study process.
  - Sort projects in a descending order of their score.
  - Start selecting projects from the top (highest score)
  - Track the constraints impacted by each project selection.
  - If a project selection makes one or more constraint to go over it's 150% available capacity,
    - If the project has no tied score with other project(s), select the project and lock the constraint. Meaning, any lower scored projects impacting this constraint will not be selected.
    - If the project has tied score with other project(s), Dfax will be used for tie breaker. If the tied projects have same POI, auction will be used for tie breaker.

SCORING CRITERIA

Commercial interest

- Two opportunities to obtain points for commercial interest:
  - LSE allocation process
  - Expressions of interest from non-LSEs

LSE allocation process timelines

- The ISO will receive LSE allocations directly from LSEs rather than interconnection customers, within 10 days of the close of the interconnection request application window.
  - For Cluster 15, the ISO will provide 21 days for LSE allocations, until December 21, 2024.

LSE allocation process

- The ISO does not intend to dictate procurement rules.
- To the extent that LSEs consider the LSE allocation process as part of LSE procurement efforts, LSEs naturally will comply with their own procurement requirements.
- The ISO is not in a position to establish additional procurement requirements beyond those set forth by the California Public Utilities Commission or local regulatory authorities.

Recommendations for LSE allocation process: LSEs

- Most LSEs already have requirements to run open, fair, and competitive procurement processes
  - Use the same or similar processes to allocate points
- Prior to the interconnection request application window, conduct public Requests for Information (RFIs), Requests for Offers (RFOs), or some other functionally equivalent process to ensure fairness, transparency, and competition
- Describe and notice review process at least two months prior to the opening of the interconnection request window
- Communicate clear evaluation criteria for this process to prospective interconnection customers

Recommendations for LSE allocation process: LSEs

- Conduct broad market outreach to potential interconnection customers regarding their process for LSE allocations
- Seek projects that best align with procurement and resource needs, as indicated by integrated resource plans or other relevant planning documents
  - Make planning documents publicly available and clearly reference them with plans for their individual LSE allocation process
- LSEs are neither expected nor required to participate in this allocation process
  - Two months prior to the interconnection request window, publicly state whether or not they intend to allocate points to the ISO for transparency for prospective interconnection customers

Recommendations for LSE allocation process: Interconnection Customers

- Participate in LSE RFIs, RFOs, and/or bilateral discussions with LSEs to market projects prior to the interconnection request application window to supplement information LSEs will be provided during the scoring process.
- Share project information as needed with individual LSEs in order to inform each LSE's decision.
  - Confidentiality considered under the LSE's tariffs or applicable practices.
- Interconnection projects must be located at a POI with available capacity to be able to be studied.

Recommendations for the LSE allocation process: LSEs and interconnection customers

- Interconnection costs and timelines will be highly uncertain; such information will not become clear until after the interconnection study process. It would be premature to expect agreement between LSEs and interconnection customers on contract terms (e.g., contract price, term length, commercial operation date)
- This process is not intended to result in the exchange of value or have terms.
  - However, each LSE and interconnection customer may decide whether or how binding any allocation would be for future contracts; this decision should be in the mutual interest of both parties.

Expectations for the LSE allocation process: California ISO

- Provide LSEs with a standard form to use in submitting their project capacity selections.
  - Capacity awarded to projects by LSEs will not be known or confirmed by the interconnection customer application window, and therefore will not be included in the interconnection customer's self-assessment.
  - LSEs and interconnection customers may communicate regarding the status of allocations.

Expectations for the LSE allocation process: California ISO

- Develop and provide a list of LSEs for interconnection customers.
  - Must confirm that LSEs and their individual staff are willing to be contacted before posting the list.
  - Provide list at least two months prior to the interconnection request window.
- Provide interconnection customers with an identifying number for each interconnection request to share with LSEs.
- The ISO will not provide LSEs with information the tariff deems to be confidential.

LSE allocation process: Basis for LSE selections

- The capacity value allocated to a project at the POI will be used to determine the number of points the project receives.
- If the LSE awards a capacity amount to a project that equals the project's aggregate MW capacity at its POI (100% of the aggregate MW capacity at its POI), the project will receive 100 points.

Scoring criteria: additional clarifications

- ISO will extend the window for receiving LSE allocations to 21 calendar days for Cluster 15.
- The ISO will post the local areas/sub-areas that have a deficiency of generator capacity and the amount of additional capacity needed to eliminate the deficiency at least two months prior to the interconnection request application window, possibly much earlier.
- Long lead-time projects in zones with existing transmission capacity will be eligible for points, in addition to long lead-time projects in zones with approved transmission.

Commercial interest scoring for Energy Only (EO) Projects

- Use the same process of LSE capacity allocations as is used for allocating available TPD capacity to the LSEs.
- Based on the total amount of EO capacity in the CPUC portfolio and non-CPUC jurisdictional LSE resource plans in each zone.
- To achieve 100 points an LSE will need to allocate an amount of capacity to the Energy Only project as the project's aggregate MW capacity at its POI.

ORDER NO. 2023 COMPLIANCE FILING

Overview

- Filed today
- Effective date tomorrow
- Applies to C15 and future clusters only
- Generally adopts all prescribed revisions, including new timelines for studies:
  - 150 days for cluster study (formerly Phase I)
  - 150 days for reassessment
  - 120 days for interconnection facilities study (formerly Phase II)
- Maintains CAISO traits: cost caps, per unit cost guide, cash reimbursement for network upgrades, TPD allocation, affected system notification, etc.

Compliance with Order

Complete compliance | Minor variations | Alternative

- Heatmap (early)
- Cluster Study
- Definitions
- Definitive POI
- Request/Engagement windows
- Scoping Meeting
- Metrics
- Evaluation Process
- 3-year COD Extension
- Cluster Study Provisions
- Restudy Triggers
- LGIA Tender, Negotiation, & Execution
- Cluster Subgroups
- Restudy
- Allocation of Study Costs
- Allocation of Upgrade Costs
- Shared Upgrades
- Increased Financial Commitments/Readiness and Withdrawal Penalties

Compliance with Order

Complete compliance | Minor variations | Alternative

- Site Control
- Elimination of Reasonable Efforts Standard
- Penalties for Late Studies
- CAISO as Affected System
- Notifying Affected Systems
- Co-Located Facilities
- GETs
- Modeling Requirements
- Applicability of Ride-through Requirements
- Ride-through Requirements

Minor Independent Entity Variations

- Request/Engagement Window
  - Maintains 15-day/90-day split to enable meaningful iteration on technical errors
- Cluster Study
  - Maintain cluster process through interconnection facilities study
  - Cost caps are advisory in cluster study and binding in facilities study
- Annual reassessment for all clusters and studies
  - Occurs after cluster study within 150 days
  - Subject to penalties for late restudies
  - For ICs with Phase II/interconnection facilities studies, reassessment cost changes are advisory in reassessment and binding in next facilities study

Minor Independent Entity Variations

- LGIA Execution
  - Includes 240-day maximum delay for affected system study extension to account for non-jurisdictional affected systems (18 of 20 for CAISO)
- Affected System Notification
  - Maintains CAISO's two-step process where affected systems can review study results and waive rights during first 60 days
  - Affected systems forgo studying between 50-100 percent of CAISO projects based on study results

Other Changes on Compliance

- Cluster Application Window will move to October to re-align with transmission planning
- No window in 2025
  - Enables C15 study to progress and new TPP upgrades to reach base case
- Independent study process removed

NEXT STEPS

Interconnection Reform Schedule

Date	Milestone
5/9/2024	Addendum to final proposal posted
5/16/2024	FERC Order No. 2023-A compliance filing deadline
5/16/2024	Stakeholder workshop • Zonal approach and constraint analysis • Addendum to Final Proposal • Discussion of Order No. 2023 compliance filing
5/23/2024	Board of Governors meeting: informational briefing on IPE Track 2 final proposal
6/12/2024	Board of Governors meeting: decision on IPE Track 2 final proposal
Early June 2024	Initiate Track 3 of IPE, focusing on transmission plan deliverability

Additional information

- Visit initiative webpage for more information and comments template: https://stakeholdercenter.caiso.com/StakeholderInitiatives/Interconnection-process-enhancements-2023

- If you have any questions, please contact isostakeholderaffairs@caiso.com

SAVE THE DATE | OCT. 30, 2024 SACRAMENTO, CA

2024 STAKEHOLDER SYMPOSIUM

The California ISO Stakeholder Symposium will be held on Oct. 30, 2024 at the Safe Credit Union Convention Center in Sacramento, California.

A welcome reception for all attendees will be held the evening of Oct. 29.

Additional information, including event registration and sponsorship opportunities, will be provided in a future notice and on the ISO's website.

Please contact Symposium Registration at **symposiumreg@caiso.com** with any questions.

New training series: Resource Operations Readiness Training

Training Goal: to prepare customers in advance of summer to meet ISO expectations for successful resource management, especially during tight conditions.

These courses build on concepts shared during the May 1st Resource Interconnection Fair.

Resource Performance Expectations May 7th

- Dispatch/Operating instruction response
- Hybrid resource management
- Outage cards completion
- Flex Alerts/EEA response

Battery Performance Expectations May 15th

- Resource capabilities
- Correct Nature of Work
- Off-Grid Charging Indicator
- Physical management requirements

Managing Intertie Transactions May 16th

- Wheel-through concepts
- Export priority
- Tagging expectations
- Flex Alert/EEA

WEIM Resource Performance Expectations May 22nd

- Assistance Energy Transfer
- Demand Response process for WEIM

Register today at: https://caiso.regfox.com/resource-operations-readiness-training-series

Contact CustomerReadiness@caiso.com with questions.

Share this information with your staff!

A new **caiso.com** is coming in late May

Training sessions will be held on
May 23 from 9:00 a.m. – 10:00 a.m.
May 29 from 10:00 a.m. – 11:00 a.m.

Watch the Daily Briefing for details and follow us on social media.