2023 Interconnection Process Enhancements Track 2 Revised Straw Proposal Workshop

December 19, 2023

New pre-registration process to join meetings

- Pre-registration is required for all future stakeholder meetings in order to receive a link to join the meeting.
  - The link to pre-register is available in the meeting notice, and the ISO calendar.
- A recent update to WebEx disabled the ability to view the list of meeting attendees.
- The new pre-registration process will allow us to provide the list of meeting attendees to stakeholders during the call.
- Please make sure your systems administer white list our domain to receive the web conference notification email.

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

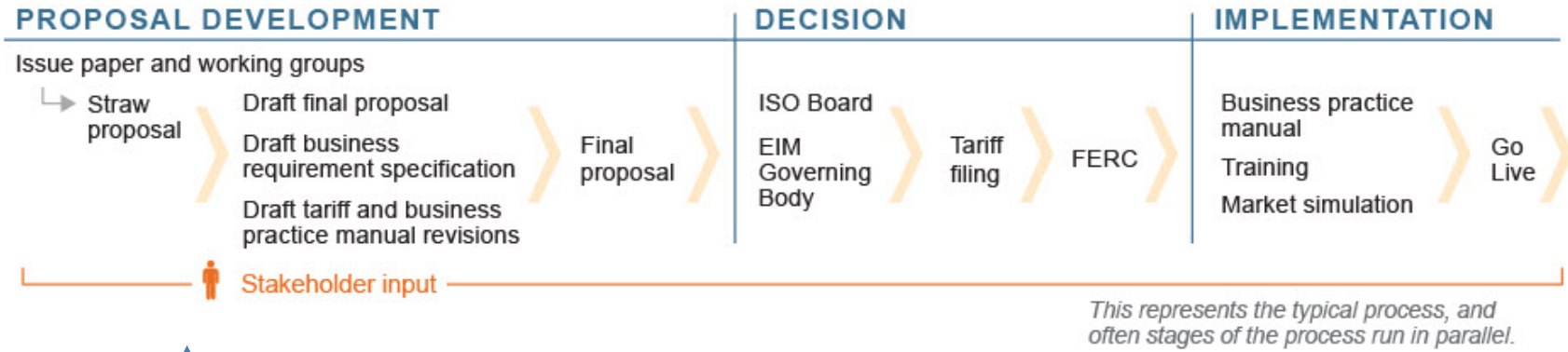
Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon  located on the top right above the chat window. **Note**: #2 only works if you dialed into the meeting.
  - Please remember to state your name and affiliation before making your comment.
- Do not mute yourself until you have completed your question or comment. WebEx platform will LOCK and mute you if you mute yourself once you have finished your question.
- Attendee list for today’s call can be viewed on your chat.
- You may also send your question via chat to either Brenda Corona or to all panelists.

Agenda December 19

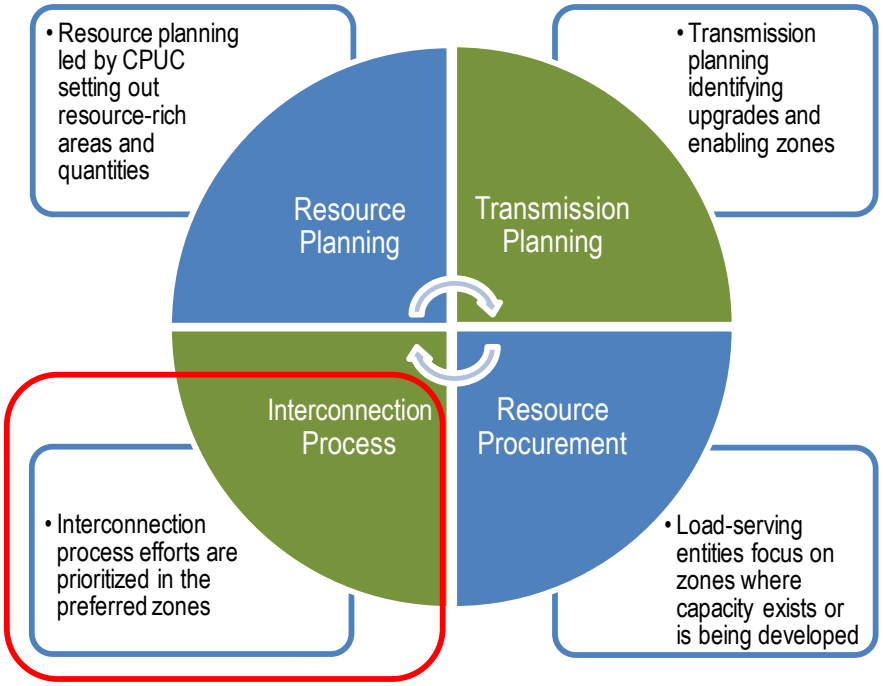
Time	Topic	Presenter
9:00am – 9:30am	Introductions and Background	Brenda Corona, Danielle Mills
9:30am – 12:00pm	Zonal Approach and Interconnection Request Intake	Robert Sparks, Bob Emmert, Steve Rutty
12:00pm – 1:00pm	LUNCH	
1:00pm – 2:45pm	Contract and Queue Management	Jason Foster, Debi Le Vine
2:45 pm – 3:00pm	Summary and Next Steps	Brenda Corona

CAISO Policy Initiative Stakeholder Process



We are here

Transformative change to the interconnection process is part of a larger coordinated strategy with state agencies



Expectations:

- The CPUC will provide direction to its jurisdictional load serving entities (LSEs) to pursue resources in the key zones.
- Procurement will focus on the expected quantities enabled by the planned transmission development, as set forth in the ISO's transmission planning process (TPP);
- State agencies, local regulatory authorities (LRAs), and LSEs will continue to significantly inform the ISO's TPP.

Stakeholder Working Group Engagement

- Development of principles and problem statements
- Feedback on ISO concepts
- Stakeholder proposals
- Informal survey on data and viability
- Working group discussions to refine scoring criteria
- Feedback on the initiative timing

Next steps: additional discussion of deliverability issues

FERC Order No. 2023

- The ISO intends to comply with the order as fully and quickly as possible, with a compliance filing in early April 2024.
- The following elements are FERC requirements, now considered out-of-scope for the IPE initiative:
  - Interconnection request requirements
  - Information availability and heatmap*
  - Entry fees and deposits for queue entry
  - Site control requirements as defined in FERC Order No. 2023
  - Study process timelines*
  - Financial posting requirements and withdrawal penalties
  - Affected system processes
  - Consideration of grid-enhancing technologies
  - Consideration of planned storage operation

Implementation of Order No. 2023 and IPE Track 2

- The ISO must comply with Order No. 2023 and will implement the proposals in this paper before re-engaging with the C15 interconnection request validation process and C15 studies.
- The ISO does not expect to open an interconnection request window in 2024. The tariff requirements for such a cluster would be in flux, and additional queue volume would compound the challenges described below.
- The ISO does not foresee compliance having a significant impact on Cluster 14 or earlier, however, as a transitional measure, all interconnection customers without site control or executed GIAs may be required to have them sooner than the GIDAP currently contemplates.
- It will be part of our compliance to apply Order No. 2023 to Cluster 15, including the site control requirements.

Order 2023 Study Timelines: Off Peak and Operational Deliverability Assessment *(New Proposal)*

- Order No. 2023 prescribes very fast timelines for cluster studies: 150 days for the cluster study, 150 days for the cluster restudy, and 90-180 days for the interconnection facilities study.
- The ISO believes that complying with these prescribed timelines requires the ISO to conform the scope of its interconnection studies to FERC's pro forma.
- The ISO thus proposes to remove both the off-peak and operational deliverability assessments to enable the ISO to meet Order No. 2023's prescribed timelines.
- The ISO invites stakeholder feedback on this proposal.

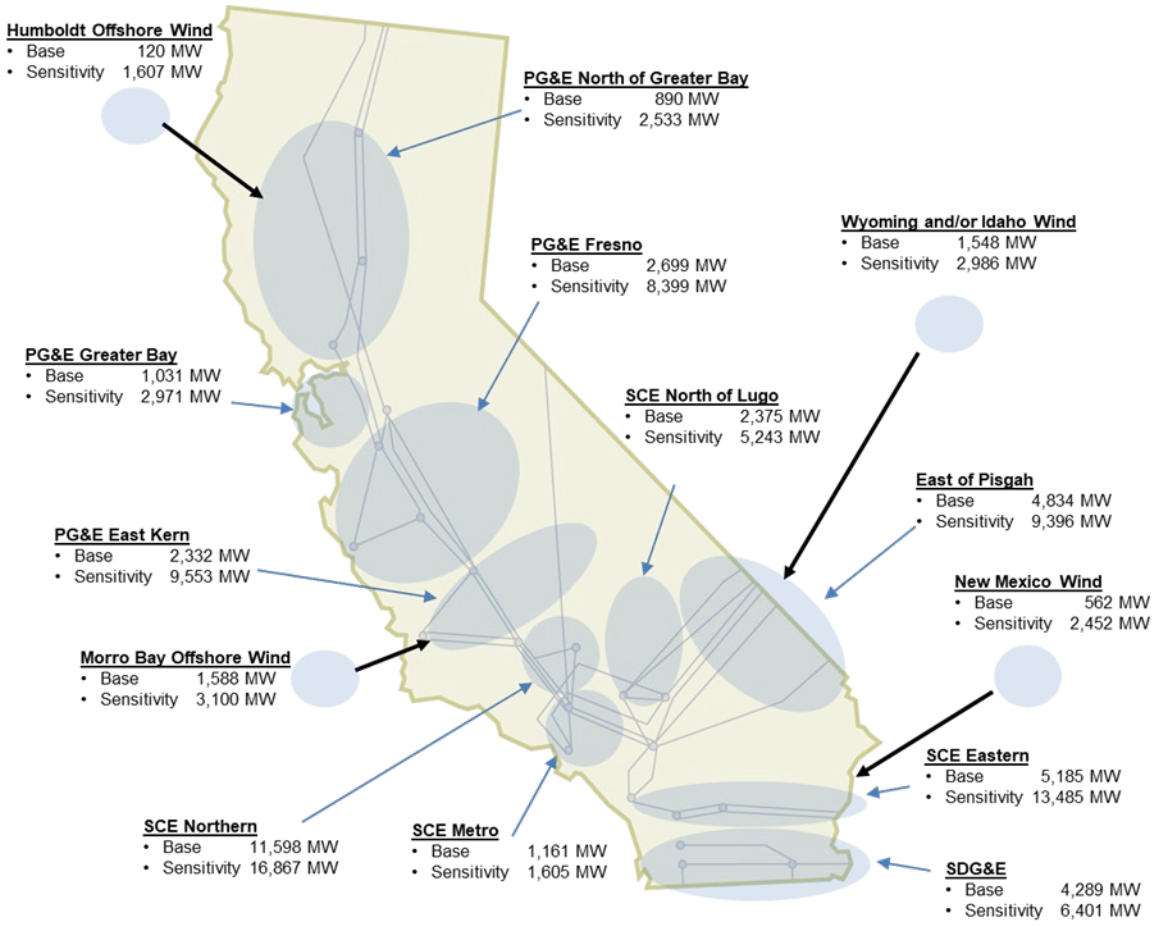
INTERCONNECTION REQUEST INTAKE

Data Accessibility

THE ZONAL APPROACH

Transmission Zones and installed capacity of resources for the 2022-2023 Transmission Planning Process

- Transmission zones and the installed capacity of resources in the base and sensitivity portfolios provided by the CPUC for the 2022-2023 transmission planning process (TPP)
- Transmission zones are aligned with the transmission interconnection areas used in the generation interconnection process



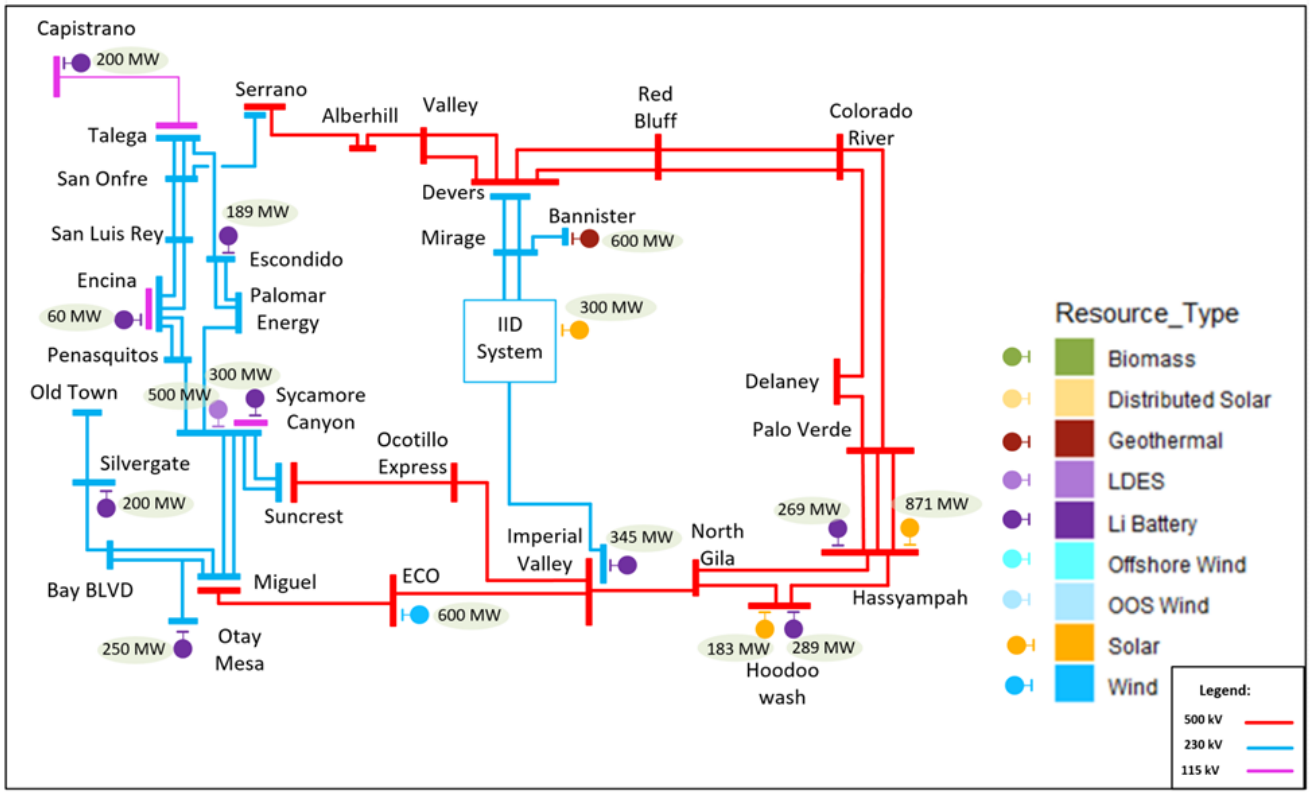
CPUC Busbar Mapping of Resources in Portfolios

- The CPUC's busbar mapping provides the following information for the portfolios:
  - transmission area/zone
  - substation
  - technology
  - capacity

				22-23 TPP 38 MMT Proposed Base Case Final Mapped Amount		
Transmisison Area	Substation	Voltage	Resource Type	FCDS (MW)	EODS (MW)	Total (MW)
PG&E Fresno Study Area	Alpaugh	115	Biomass/Biogas	3	-	3
SCE Northern Area	Antelope	230	Distributed Solar	3	-	3
SCE Northern Area	Antelope	230	Li_Battery	439	-	439
SCE Northern Area	Antelope	230	Solar	450	497	947
PG&E East Kern Study Area	Arco	230	Li_Battery	76	-	76
PG&E East Kern Study Area	Arco	230	Solar	125	28	153
SDG&E Study Area	Bannister	230	Geothermal	600	-	600
SCE Metro Study Area	Barre	230	Li_Battery	10	-	10
East of Pisgah Study Area	Beatty(VEA system	138	Geothermal	440	-	440
PG&E North of Greater Bay Study Area	Bellota	115	Biomass/Biogas	4	-	4
PG&E North of Greater Bay Study Area	Bellota	115	Li_Battery	132	-	132
SCE Northern Area	Big Creek Hydro Fa	230	Biomass/Biogas	6	-	6

Mapping of CPUC portfolio in Transmission Plan

- Chapter 3 and Appendix F of the ISO's 2022-2023 Transmission Plan included single-line diagrams for each of the transmission zones indicating the capacity and technology type where the resources in the portfolio were mapped to the electrical grid in the zone.



Additional information on transmission capability in the zones

- ISO's Transmission Capability Estimates for the CPUC's Resource Planning Process

- ISO's annual Transmission Plan Deliverability Allocation Report

Transmission capability estimates

- Within each zone, the ISO identified the following information for each of the identified transmission constraints:
  - Available transmission plan capability
  - Network upgrade to increase transmission plan capability
  - Incremental available transmission plan capability
  - Estimated cost of network upgrade

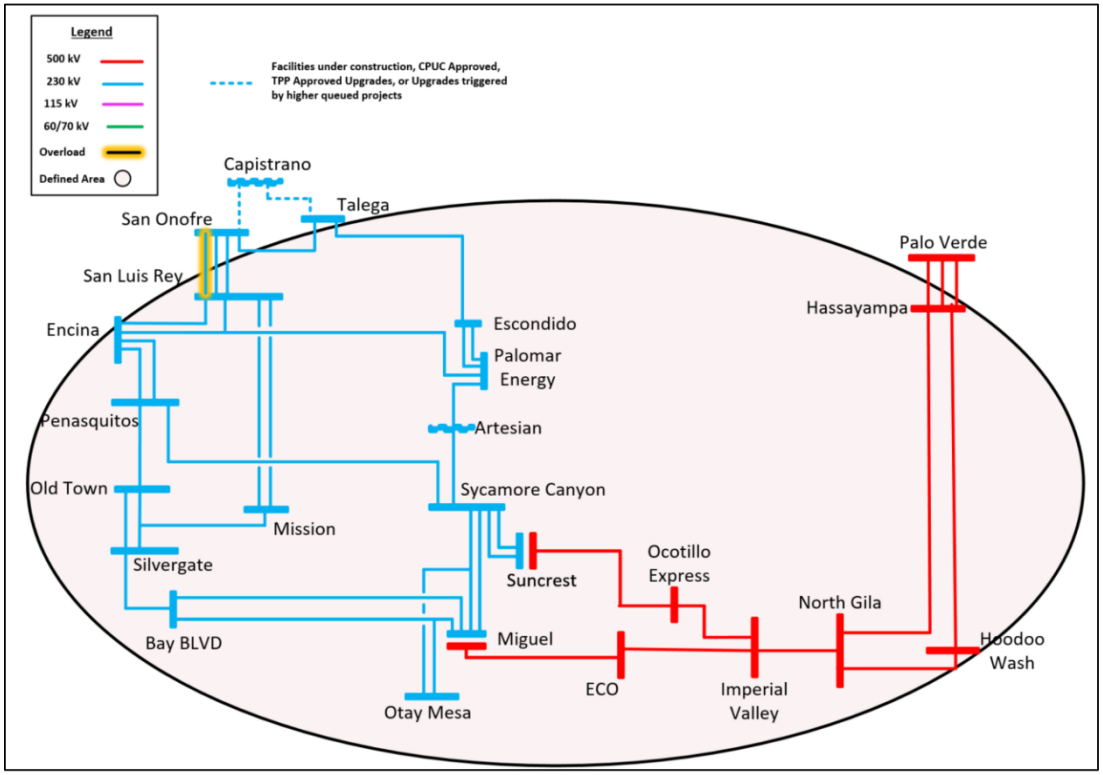
Transmission capability estimates for use in the CPUC's IRP process - Revised 6/28/2023						
Transmission Constraint	Affected Resource Locations	Condition Under Which Constraint is Binding (On-peak and/or Off-peak)	Estimated FCDS Capability Based on On-peak Study Resource Output (MW)**		ADNU & Cost Estimate ($million)	
			Transmission Plan Capability***	Incremental due to ADNU	ADNU (Time to Construct)	Cost (2022$)
SDG&E Interconnection Area Constraints						
Capistrano-San Onofre 230 kV constraint	SDGE local area	On-peak	1,500	920	Capistrano-San Onofre 230 kV upgrade (60 months)	$58
Chicarita 138 kV constraint	Baja, Imperial, SDGE local area	On-peak	224	700	Chicarita 138 kV Upgrades (48 months)	$100
El Cajon 69 kV constraint	SDGE local area	On-peak	406	547	El Cajon 69 kV Upgrade (48 months)	$15
Internal San Diego Area constraint	Baja, Imperial, SDGE local area	On-Peak, Off-Peak	1,001	2,757	Internal San Diego Area reconductors (48 months)	$107
Miguel 69 kV constraint	SDGE local area	On-peak	231	431	Miguel 69 kV upgrades (48 months)	$671
Encina - San Luis Rey 230 kV constraint	Baja, Imperial, Arizona, SDGE local area	On-Peak, Off-Peak	1,922	4,660	New Encina - San Luis Rey 230 kV line (120 months)	$84
East of Miguel constraint	Baja, Imperial, Arizona, Riverside East	On-Peak, Off-Peak	1,035	1,286	New Imperial Valley - Serrano 500 kV line (188 months)	$2,713
San Luis Rey-San Onofre 230 kV line constraint	Baja, Imperial, Arizona, SDGE local area	On-Peak, Off-Peak	2,018	4,254	New San Luis Rey-San Onofre 230 kV line (120 months)	$107
Ocean Ranch 69 kV constraint	SDGE local area	On-peak	274	692	Ocean Ranch 69 kV upgrade (48 months)	$28
Otay Mesa 230 kV constraint	Imperial, SDGE local area	On-peak	1,425	2,189	Otay Mesa 230 kV upgrade (60 months)	$80
Silvergate - Bay Blvd 230 kV constraint	Baja, Imperial, SDGE local area	On-Peak, Off-Peak	663	4,887	Silvergate - Bay Blvd 230 kV 3-ohm Series Reactor (36 months)	$30
Silvergate-Old Town 230 kV constraint	Baja, Imperial, SDGE local area	On-peak	1,221	2,522	Silvergate-Old Town 230 kV Upgrades (60 months)	$283
Talega 230 kV constraint	SDGE local area	On-peak	1,205	2,201	Talega 230 kV Upgrades (60 months)	$211
Trabuco-Capistrano 138 kV constraint	SDGE local area	On-peak	501	556	Trabuco-Capistrano 138 kV upgrade (48 months)	$103

- In addition to the table identifying the constraints within the zone, single line diagrams, similar to those provided in the transmission plan, are provided identifying the substations where generators located would be behind the identified constraint

Annual transmission plan deliverability report

- Transmission Plan Deliverability Report includes a diagram of the constraints within the transmission zones identifying the substations that within the constraint .

- Provides for the constraints in the zone:
  - Non-operational prior commitments
  - requested TPD
  - allocated TPD
  - remaining TPD



Non-Operational Prior Commitment (MW)	2148
Eligible TPD Candidate (MW)	2747
TPD Allocated (MW)	0
Remaining TPD available (MW)	0

The ISO understands that access to information is critical to the zonal approach

- The ISO will develop a heat map along with the associated information, as required in FERC Order No. 2023.
  - Based on discussions with entities that have already developed a heat map, the ISO anticipates developing a heat map by Q3/Q4 2024.

- The ISO will work to ensure consistency of single line diagrams for each of the transmission zones and transmission interconnection areas in the generation interconnection process.
  - The diagrams will identify the boundaries of the zones/area, location of resources in the portfolios and the queue, the affected stations and the available TPD for allocation behind each of the transmission constraints.

Fulfillment of 150% of available and planned transmission capacity in Option A zones *(New description)*

Process of selecting projects that can proceed to the study process within each Option A zone

- ISO will add projects to their various POIs within each zone, in descending order of project's scores, until the available and planned transmission capacity for each constraint at the POI is filled to 150% of that capacity.
- Projects at a POI that are affected by a constraint with no available or planned transmission capacity will not be included in the study for that zone.
- Projects at a POI that has not been previously studied will be evaluated using engineering judgement based on its effectiveness to the known constrains.

INTERCONNECTION REQUEST REQUIREMENTS AND REVIEW

Interconnection Request Window

- Site control requirements consistent with FERC Order No. 2023
- Entry fees and deposits consistent with FERC Order No. 2023

Interconnection Request Limitations

- Based on data from resent clusters, the ISO continues to believe that it is necessary to limit the number of interconnection requests from any one parent company.
- The ISO proposes to limit interconnection request capacity that a developer may submit in any given cluster application window to 25% of the total available transmission capacity across the system for each cluster.
  - The available capacity will reflect the total amount of system need in a given year, based on the year-ahead target from the resource planning portfolios used in the TPP process.
- This limit is scalable to the total available transmission capacity for a cluster, ensuring consistency and alignment with planning and procurement efforts.

PRIORITIZATION OF PROJECTS ADVANCING TO THE STUDY PROCESS *(UPDATED)*

LRAs and non-CPUC jurisdictional entities

- As a part of the ISO transmission planning process, the ISO will coordinate with the LRAs and non-CPUC jurisdictional entities, in addition to the portfolios received by the CPUC for the annual transmission planning process.
- The ISO will automatically include any project that a non-CPUC jurisdictional LSE demonstrates is a preferred resource in its resource plan that has been approved by its LRA (or where no approval is required). These projects will be included in the group of projects comprising the 150% available capacity that move forward to the study process.

Scoring criteria for prioritization to study process

- Criteria designed to rank interconnection requests by zone based on readiness.
- Used to reduce capacity to 150% of available transmission capacity within each zone when exceeded.
- A project that crosses the 150% line will be studied in its entirety.

Indicators of Readiness	Total Points	Weight (%)	Total Score
LSE Interest (Numeric value)	100	40%	**40**
Project Viability (check all that apply)	100	30%	**30**
System Need (check all that apply)	100	30%	**30**
Total		100%	**100**

Scoring criteria for prioritization to study process - LSE Interest

Indicators of Readiness	Points	Weight (%)	Total Score	Validation
LSE Interest (Numeric value)				
□ Preferred resource in non-CPUC jurisdictional resource plan that has been approved by Local Regulatory Authority	Automatically advances			
□ Points based on the percentage of capacity allocated by LSEs to the project (e.g. a 500 MW project receiving 500 MW capacity allocation would earn 100 points for this category. A 500 MW project receiving 250 MW capacity allocation would earn 50 points for this category.)	100	40%	**40**	LSE communication

Scoring criteria for prioritization to study process - Project Viability

Indicators of Readiness	Points	Weight (%)	Total Score	Validation
Project Viability (check all that apply)				
□ Demonstration of business partnerships for future supply of major equipment prior to COD	15	30%	**30**	Affidavit of Master Services Agreement or Purchase Order
□ Engineering Design Plan	15			Engineering design plan submitted to ISO with IR
□ Expansion of an existing facility	30			IC submits information indicating that new IR uses same or directly adjacent site from existing facility
□ Expansion of an existing facility where the existing Gen-Tie already has sufficient surplus capability to accommodate the additional resource	40			IC submits information indicating that new IR uses same or directly adjacent site from existing facility

Scoring criteria for prioritization to study process - System Need

Indicators of Readiness	Points	Weight (%)	Total Score	Validation
System Need (check all that apply)				
□ Ability to provide Local Resource Adequacy (RA) in an LCRA with an ISO demonstrated need for additional capacity in that local area	40	30%	**30**	
<u>Long Lead-time Resources</u> □ Meets the requirements of the current CPUC resource portfolio where the TPP has approved transmission projects to provide the necessary transmission requirements	60			

Scoring criteria for prioritization to study process Distribution Factor Tie-Breaker

- *The ISO will use each project's distribution factor (DFAX) as a tie-breaker when the selection process is near the 150% threshold and two or more projects are tied.*
  - DFAX is a measure of the impact of injections of energy from a generator at a particular location which could result in required network changes on the grid.
- Projects will be selected in order of the lowest DFAX with the selection process ending with the project that caused the 150% threshold to be exceeded, regardless of the size of the last project.
- If project ties still exist after the use of projects' DFAX then the auction process will be used to break the ties.

Auction process for final project inclusion in zonal studies

- If required, the ISO will conduct a market-clearing, sealed-bid auction for the right to be studied in a specific zone.
  - The auction will only be used if the viability scoring is unable to limit the proposed capacity to 150% of available capacity within each zone.
  - Only projects that are deemed equal in viability rating and cause the total MW for a zone to cross the 150% capacity limit for that zone will participate in the auction.
  - *Auction bids, on a dollar per MW basis, will be requested after the viability scoring process has been completed.*
  - *Projects that submit the highest bids and are either within or the first project that crosses the 150% MW transmission zone capacity will be accepted to be studied in their entirety for that transmission zone.*
  - Bidder will only submit at-risk auction financial security if they win the auction and proceed to be studied.

Auction process for final project inclusion in zonal studies (continued)

Use of Auction Revenues

- Auction funds posted by an interconnection customer will be in favor of the Participating TO.
  - Financial security instruments are the same as currently allowed for interconnection financial security.
- Projects that successfully compete in an auction and reach commercial operation will be refunded their auction-posted security.
- If a project withdraws, or is withdrawn prior to reaching commercial operation, some or all of their auction-posted security will be forfeited and used to offset and support still-needed network upgrades.

Auction process for final project inclusion in zonal studies (continued)

Withdrawal Timeline (Timeline is consistent with FERC Order 2023)	Amount to be refunded to the Interconnection Customer	Amount to be dispersed to the applicable Participating TO
If Interconnection customer withdraws or is deemed withdrawn during the Cluster Study or after receipt of a Cluster Study Report, but prior to commencement of the Cluster Restudy or Interconnection Facilities Study	85%	15%
If Interconnection customer withdraws or is deemed withdrawn during the Cluster Restudy or after receipt of any applicable restudy reports issued, but prior to commencement of the Interconnection Facilities Study	70%	30%
If Interconnection customer withdraws or is deemed withdrawn during the Interconnection Facilities Study, after receipt of the Interconnection Facilities Study Report issued, or after receipt of the draft LGIA but before Interconnection customer has executed an LGIA or has requested that its LGIA be filed unexecuted	50%	50%
If Interconnection customer has executed an LGIA or has requested that its LGIA be filed unexecuted	0%	100%

Modifications to the Merchant-Financing "Option B" Process

- Only projects seeking to interconnect in areas that have no available or planned TPD capacity are eligible to select Option B.
- Option B will not be available to projects that were not selected to be studied in transmission zones that have available or planned capacity.
- Option B projects will not have to compete for TPD in the allocation process.
- Projects requiring LDNUs will be eligible for cost recovery of the IFS posted for the LDNU.
- Projects eligible to receive Merchant Transmission Congestion Revenue Rights for ADNU

Modifications to the Merchant-Financing "Option B" Process (continued)

- Projects required to make an initial IFS posting of *5%* of the estimated cost of required ADNU – 50% non-refundable
  - ISO will publish available cost estimates of ADNUs from prior cluster studies – posting range $500,000 min, *$5M max*.
  - If no applicable ADNU cost estimate is available, the project would be required to post an amount equal to $10,000 per MW, with same $500,000 min & *$5M max*.
- Projects that complete the cluster studies will be required to increase their posting to 50% and no longer eligible for a partial refund of their IFS posting upon withdrawal.
- *If TPP determines an Option B ADNU is required to support the CPUC portfolio, ICs will be relieved of their ADNU funding requirement and refunded posting.*

COMPETITION TO SECURE TPD IN EACH ZONE

Full proposal on modifications to the TPD Allocation process is pending further initiative work

- The ISO will defer the TPD allocation discussion until greater certainty has been achieved from the Deliverability Assessment Methodology and the IPE 2023 initiatives.
  - The proposals from the Straw Proposal are deferred to keep all related TPD allocation issues together in one holistic discussion.
- It is likely the TPD allocation discussions may not advanced to the final proposal stage in time for the May 2024 ISO Board of Governors meeting.
  - If that is the case, the TPD allocation discussions will continue in an IPE 2023 Track 3, targeting the July 2024 Board of Governors meeting.

CONTRACT AND QUEUE MANAGEMENT

Contract and Queue Management
One-Time Withdrawal Opportunity

- Uncertainties around the potential benefits and costs associated with this proposal
- Challenges with cost allocation leave two potential solutions:
  - Seek additional sources of funding for network upgrade costs associated with withdrawals, either through a green bank or government grant or loan program.
  - Remove this option from IPE and focus on other mechanisms to encourage withdrawals of stagnant projects.

Contract and Queue Management
Limited Operation Study Updates

- Extend from 5 months to 9 months to submit a LOS request.
  - Cannot extend further due to less accurate operating information and risk of reliability of the system.

- Update BPM for Generator Management to clarify that a MMA request submitted simultaneously with a LOS must be deemed complete and valid prior to the start of the LOS. If an MMA is submitted after a LOS is completed and the MMA results may impact the LOS, the LOS will need to be re-evaluated and potentially restarted.

Contract and Queue Management

- Revise Attachment 7 (SGIA) to be consistent with Appendix H (LGIA)
- Remove suspension rights
- TP Deliverability Transfer Limitations
  - Project transferring TPD will be withdrawn from the queue upon the approval of such transfer request.
  - *ISO will forgo such withdrawal of the transferring project if the transferring project provides an Energy Only Power Purchase Agreement at the time of such transfer request.*
  - *ISO removed language regarding a single parent company owning multiple queue positions due to preferential treatment issues. The above would apply to all projects*
  - TPD between resources/technologies within the same queue number is not considered a TPD transfer.

Contract and Queue Management
Viability and Time-in-Queue *(Revised Topic)*

- Impose an unavoidable time-in-queue requirement for all projects to meet Commercial Viability Criteria (7 years).
  - Provide proof of having an executed PPA – for RA/TPD or as EO.
    - If PTO extension cause loss of PPA, customer will be provided 12 months to execute a new PPA.
  - Provide 3rd Financial Security Posting
  - Demonstrate 100% Site Control
  - Have executed ISO GIA, and be in good standing
  - Provide detailed status and demonstration of the following as a baseline for annual progress to commercial operation:
    - Progress of GIA Milestones
    - List of all expected permits and their current status
    - Status of engineering, design, and construction activities of generating facility and upgrades
    - Status of major equipment procurement

Contract and Queue Management
Viability and Time-in-Queue

- These CVC requirements *do not* rely on a project's commercial operation date, long-lead upgrade or procurement needs, long-lead development timelines (offshore wind, geothermal, etc.), or a project's TPD status.

- They *do* provide equal and reasonable time and flexibility to
  - seek and receive a TPD allocation,
  - park as needed,
  - execute an interconnection agreement,
  - seek and execute a power purchase agreement (whether for resource adequacy requiring TPD or for Energy Only), and
  - commence design, permitting, procurement, and construction activities.

Contract and Queue Management
Viability and Time-in-Queue (Annual Demonstration)

- Annual Demonstration of specific and distinct progress of:
  - All status' identified for CVC
  - GIA Milestones
  - Submittal of or approvals from regulating authorities for all necessary permits.
  - Status of engineering, design, and construction activities of generating facility and upgrades
  - Status of major equipment procurement

Contract and Queue Management
Viability and Time-in-Queue

CVC Requirements for active queue projects
GIA Execution Requirement

	# Projects with unexecuted GIAs	MW Capacity at POI	IR Received Date (April)	7 years in queue	Years in Queue as of Nov. 2023	GIA Executed No Later Than:	Years-in-queue
Cluster 8 and prior	1	50	2015	2022	8.5+	June 30, 2025	10.2+
Cluster 9	3	450	2016	2023	7.5	June 30, 2025	9.2
Cluster 10	2	300	2017	2024	6.5	June 30, 2025	8.2
Cluster 11	6	921	2018	2025	5.5	June 30, 2025	7.2
Cluster 12	13	3915	2019	2026	4.5	Sept. 30, 2025	6.4
Cluster 13	46	12,117	2020	2027	3.5	Dec. 31, 2025	5.7
Cluster 14*	204	65,506	2021	2028	2.5	April 30, 2026	5.0

*FERC Order No. 2023 may impact or change the timeline for Cluster 14 GIA tendering and execution requirements

Contract and Queue Management Viability and Time-in-Queue

CVC Requirements for active queue projects

CVC Demonstration Requirement

	# Projects impacted	MW Capacity at POI	IR Received Date (April)	7 years in queue	Years in Queue as of Nov. 2023	Demonstrate all CVC No Later Than:	Years-in-queue	Months to demonstrate CVC after GIA execution
Cluster 8 and prior	49	7,377	2015 and prior	2022 and prior	8.5+	Dec. 31, 2025	10.7+	6 Months
Cluster 9	27	5,367	2016	2023	7.5	Dec. 31, 2025	9.7	6 Months
Cluster 10	21	6,501	2017	2024	6.5	Dec. 31, 2025	8.7	6 Months
Cluster 11	30	5,362	2018	2025	5.5	April 30, 2026	8.0	10 Months
Cluster 12	44	14,768	2019	2026	4.5	Sept. 30, 2026	7.4	12 Months
Cluster 13	60	16,323	2020	2027	3.5	April 30, 2027	7.0	16 Months
Cluster 14	204	65,506	2021	2028	2.5	April 30, 2028	7.0	24 Months

*FERC Order No. 2023 may impact or change the timeline for Cluster 14 GIA tendering and execution requirements

Contract and Queue Management
Modification Request Updates

- Increase deposit to $30,000
- Increase time to complete engineering analysis from 45 days to 60 days
- Increase time to complete the FRR from 45 days to 60 days

Process Updates

- Work to host calls following the second or third validation turn.
- Coordinate with the PTOs to improve the initial and subsequent validation reviews for modification requests.
- Work to identify specific milestones such as executing the GIA or providing notice to proceed in the modification results.
- Update the BPM for Generator Management (Section 6.2.1.4) that projects must have started construction and be within *nine (9)* months of achieving their then-current synchronization or commercial operation date to submit a construction sequencing delay request.

Contract and Queue Management
Earlier Financial Security Postings for Projects with Shared Upgrades

- Concern is shared upgrades are not getting started when the first project is ready potentially resulting in a delay for that project
- ISO Proposal
  - Once the first project provides a Notice to Proceed then the PTOs will notify all other project with the same shared network upgrade they need to post for the upgrade
  - *Posting for the shared network upgrade would be due 60 – 90 days to post depending upon the status of the GIA*
  - *PTO would commence activity 30 days after receipt off the posting and funds*

Contract and Queue Management
Revise Timing of GIA Amendments to Incorporate Modification Results

- In the past 2 ½ years there have been 376 MMAs been approved which currently results in potentially 376 amendments
- There is insufficient staff at the ISO and PTOs to keep up
- ISO Proposal
  - The MMA report(s) is the controlling document for change to the GIA *and includes scope, schedule, and payments*
  - Once the MMA report is published, work can begin based on that change
  - Nine months prior to synchronization the GIA will be amended to incorporate all MMA reports
  - *NRI process will be aligned with this modification*

Contract and Queue Management
Commence Network Upgrades When the First Notice to Proceed is Provided to the PTO

- IC concern is that Notice to Proceed is provided to the PTO but the work doesn't begin potentially resulting in delay of the upgrade
- ISO Proposal
  - GIA include a specific date for Notice to Proceed and third posting
  - Once the Notice to Proceed and third security is received by the PTO, the PTO notifies the IC and ISO that activity has begun *within 30 days of NTP and security posting*

Implementation Deposit (*New topic*)

- The PTOs include the development costs of projects in the GIA, the ISO is not currently reimbursed for its role in development of the projects
- Currently the market is paying for the ISO development costs which is not cost causation
- The ISO is proposing that upon execution the IC provide a $100,000 deposit which the ISO can charge the actual costs incurred
- The deposit will be kept in an interest baring account

Phase Angle Data Requirements (*New topic*)

- The ISO has found that the 30 samples per second of phase angle measuring units (PMU) is insufficient granularity to use in analysis of faults on the ISO controlled grid
- PMUs can be reprogramed to provide a more granular sample to allow more appropriate data for fault analysis
- ISO proposes the PMU resolution be revised to 16 samples per second.

NEXT STEPS

IPE 2023 Track 2 Schedule

Date	Milestone
12/12/2023	Revised straw proposal posting
12/18/2023	Informational workshop on the zonal approach
12/19/2023	Stakeholder workshop on revised straw proposal
1/9/2024	Comments due on revised straw proposal
2/8/2024	Draft final proposal posting
2/15/2024	Stakeholder workshop on draft final proposal
2/29/2024	Comments due on draft final proposal
3/29/2024	Final proposal posting
4/3/2024	*FERC Order No. 2023 Compliance Filing*
4/4/2024	Stakeholder workshop on final proposal
May 2024	Board of Governors Meeting

The ISO seeks to present Track 2 to the Board of Governors in May 2024.

Additional information

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

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