



Memorandum

To: ISO Board of Governors
From: Neil Millar, Vice President of Infrastructure and Operations Planning
Date: May 14, 2024
Re: **Briefing on Interconnection Process Enhancements 2023 - Track 2**

This memorandum does not require ISO Board of Governors action. To provide adequate time for ISO Board of Governors consideration of the significant reforms proposed in this decision item and stakeholder feedback at the May 23, 2024, ISO Board of Governors meeting on the final proposal, ISO Management will seek ISO Board of Governors approval at a subsequent special meeting, scheduled for June 12, 2024.

EXECUTIVE SUMMARY

The recommended changes in this final proposal seek to better enable rapid deployment of new generation for reliability, affordability, and decarbonization. Through a robust stakeholder process and considering the urgent need to bring historic amounts of new capacity online as quickly and as efficiently as possible, the ISO proposes a package of transformational reforms that emphasize up-front project readiness and alignment with local and state resource and transmission planning efforts.

This initiative focused on the specific changes necessary for the ISO's cluster study and queue management processes to achieve these outcomes while maintaining open access to the transmission grid. With the dramatic increase in projects applying for interconnection and moving into the interconnection queue, existing tools to move projects to commercial operation are insufficient. Upon commencement of this track of the initiative in May of 2023, for example, the ISO had 185 gigawatts (GW) in the queue pre-Cluster 15, and interconnection requests totaled 347 GW in Cluster 15 alone. This volume is more than three times the capacity expected to achieve California's 100% clean energy policy objective in 2045. These volumes reflect the level of competition and interest in developing potential sites but are considerably decoupled from the number of projects that are expected to be needed by the state, and that will secure power purchase agreements and interconnect to the grid. The ISO, participating transmission owners (PTOs), load-serving entities (LSEs), and industry need a significantly reformed process to advance the most viable projects toward

interconnection and commercial operation, and to prevent stagnant projects from hindering the progress of viable projects in the queue. The intent of the ISO is to apply these proposed reforms to Cluster 15 to prioritize consideration and study of the most viable interconnection projects that best align with system need.

This policy initiative builds upon the new requirements established in Federal Regulatory Energy Commission (“FERC”) Order No. 2023, issued in July of 2023, which sets new standards for interconnection processes around the country. The ISO intends to complement FERC Order No. 2023 requirements with these additional interconnection process enhancements.

This final proposal also reflects the strategic direction established by a December 2022 Memorandum of Understanding among the ISO, California Public Utilities Commission (CPUC), and California Energy Commission (CEC). This is part of a broader effort to tighten linkages among resource and transmission planning activities, interconnection processes, and resource procurement, as the ISO works with stakeholders and local, state, and federal authorities to accelerate development and deployment of critical resources.

The reforms establish a new process for evaluating and advancing interconnection applications that best align with resource planning, transmission availability, and procurement interests of all offtakers. The ISO’s intent is to accelerate progress toward execution of interconnection agreements and commercial operation for the most viable and competitive projects, in areas that align with local and state resource plans.

The ISO also proposes reforms to the ISOs current queue management processes, which are designed to drive viable projects toward commercial operations and to prevent stagnant projects from hindering development of other, later-queued projects.

DISCUSSION AND ANALYSIS

A central tenet of the ISO’s interconnection reform effort is the prioritization of projects that can utilize available transmission capacity. This concept draws from the Memorandum of Understanding with the CPUC and CEC. Under the proposal, the ISO encourages and prioritizes projects that can utilize approved or available transmission capacity, which are located in transmission plan deliverability zones (“Deliverability zones” and “Deliverability option projects”). These zones are the result of state and local regulatory authority resource plans, which then heavily inform the ISO transmission planning process. Generation projects seeking to interconnect outside of the priority

deliverability zones may proceed as merchant projects, and will self-fund their associated network upgrades.

To effectuate the zonal approach, the ISO will provide information that helps stakeholders identify areas with available transmission capacity prior to each interconnection request application window. The ISO will provide existing information and compile additional information for stakeholders, such as updated queue reports, an interconnection heat map (as required by FERC Order No. 2023), interconnection area reports from each cluster study, and a review of non-CPUC jurisdictional LSE resource plans.

The ISO will determine whether a zone is a Deliverability or Merchant zone based on the availability of capacity associated with the known constraints within each zone and provide this information to customers prior to each interconnection request window. This method will inform customers of the available interconnection study options based on the zones they are considering for their interconnection request. Upon the close of the interconnection request application window, the ISO engineering team will conduct an initial constraint check to ensure that projects seeking to interconnect in Deliverability zones are not located behind known constraints where there is no available transmission capability.

To emphasize project readiness and competition for projects to advance to the study stage, the ISO proposes introduction of scoring criteria. Project scores will be based on indicators related to commercial interest (30%), project viability (35%), and system need (35%).

In evaluating commercial interest, the ISO will incorporate preliminary, non-binding feedback on specific projects from load-serving entities (LSEs). Each LSE can award capacity - proportionate to that LSE's load share obligation - to specific projects, which will be translated into "points" for the project, based on the amount of the capacity that is allocated. Projects can receive between zero and 100 points in the LSE allocation process. The ISO proposes limitations on the amount of capacity LSEs can award to their own LSE-sponsored projects to maintain historical ratios of utility-owned generation and independently developed projects in the queue. The ISO also proposes an option for LSEs to elect to allocate 100 points to a particular project even if that project's capacity exceeds the LSE's allocation for a given cluster. This is intended to enable LSEs with small load shares to ensure sufficient resource availability in the study process.

In addition, the ISO provides an opportunity for non-LSE offtakers (e.g. commercial entities) to express an interest in specific projects for a total of 25 points, with only one

opportunity to apply these points to a project per cycle, regardless of size. These commercial selections will improve the scores of projects selected, increasing the likelihood of those projects advancing to the study process and ultimately competing for transmission plan deliverability (TPD) and offtake agreements. The differentiation in process and point eligibility between LSEs and non-LSEs is intentional; LSEs carry an obligation to provide resource adequacy and therefore the ISO must be sure to study sufficient deliverability in the study process. Non-LSEs are not required to provide resource adequacy, however they are actively procuring resources that seek to utilize the available TPD needed for resource adequacy. Therefore, the ISO offers a lower maximum point value for projects that can demonstrate interest from non-LSEs.

The highest-ranking projects will advance to the study phase in descending order of project score, until the available and planned transmission capacity for each constraint is filled to 150% of that capacity. The ISO found that 150% of capacity was appropriate because it satisfies near-term and longer-term capacity needs, provides sufficient competition for LSEs to select from, and reduces the number of interconnection requests to an amount the ISO and transmission owners can study without delays. Ties will be resolved by calculating and selecting the lowest distribution factors (DFAX), which are a commonly used proxy to determine a generator's impact on transmission constraints, thereby correlating with its costs to relieve the constraint. If ties still exist after the DFAX tiebreaker, the ISO proposes to conduct a market-clearing sealed-bid auction to advance to the study process.

The Merchant option ensures that projects seeking to interconnect in areas/zones with no available deliverability capacity have a path forward to become deliverable by providing the opportunity for such projects to build and fund any required Area Delivery Network Upgrades (ADNUs) as a merchant transmission project. The ISO will not accept Merchant option interconnection requests within zones that have available or planned transmission capacity. However, any Deliverability zone where the available capacity is less than 50 MW will be studied as a Merchant option zone. Projects will not be allowed to submit an interconnection request as a Deliverability option project and later switch to the Merchant option if they are not selected to be studied through the scoring process. In addition, if a Deliverability option project is selected and studied, but unable to receive a TPD allocation, it will not be eligible to convert to the Merchant Deliverability option. The ISO proposes a number of changes to the Merchant option from the current tariff, to establish a clear pathway for these projects. Merchant projects:

- Will not need to compete for TPD allocations;

- Are eligible for cost recovery of any posted financial security towards the cost of a Local Delivery Network Upgrade (LDNU) in the same manner as Deliverability option projects;
- Are required to pay an additional commercial readiness deposit of \$10,000 per MW (not less than \$500,000 and not to exceed \$5 million) toward the cost of the Area Delivery Network Upgrade (ADNU) with submittal of the interconnection request to ensure developer confidence in the project's viability under the merchant option;
- Are required to increase commercial readiness deposit associated with their merchant ADNU to 50% of cost recovery.

If a future transmission plan determines that an ADNU that a merchant project is funding is needed to support a CPUC portfolio, the ISO provides criteria and a pathway to be released from the merchant project's funding obligation.

The ISO proposes continued alignment with the resource portfolios in its proposed treatment of Energy Only projects by offering two options; the reimbursable option and the non-reimbursable option. Projects that seek to interconnect in zones where the CPUC IRP base case portfolio and LRA resource portfolios identify the need for Energy Only resources will be eligible for reimbursement of the cost of reliability network upgrades (RNUs) funded by the interconnection customer. The ISO proposes to study these projects up to 150% of the Energy Only amount identified by the resource portfolios. All other Energy Only resources seeking to interconnect in zones where the CPUC's IRP base case portfolio has not identified the need for Energy Only resources or that seek to interconnect in zones that the CPUC has identified the need for Energy Only resources, but opt to be studied and without having to be scored and to interconnect without being eligible for reimbursement of the cost of RNUs funded by the interconnection customer. The ISO does not propose any limitation to the amount of non-reimbursable energy only projects studied.

The final proposal also includes important reforms to manage the ISO's growing volume of active interconnection requests. In particular, more explicit viability criteria for projects in the queue will ensure continued progress toward commercial operations, and if projects fail to demonstrate progress, time-in-queue requirements will enable the ISO to withdraw inactive projects. In addition, the ISO will require participating transmission owners (PTOs) to commence network upgrades upon receipt of the first notice to proceed, preventing delays that have plagued the queue. The proposal also includes elements to streamline the modification process and require earlier financial security postings for projects with shared network upgrades.

The ISO is committed to timely reengagement with Cluster 15 interconnection requests, which will be subject to these reforms. The ISO paused Cluster 15 projects in May of 2023, with the Board of Governor's approval, so that the ISO and stakeholders could establish a new process to effectively manage this volume. Timely re-engagement with Cluster 15 in Q4 of 2024 is essential to maintaining progress on interconnection and onboarding the resources necessary to meet near-term reliability and longer-term policy needs. In order for the ISO to apply these interconnection process enhancements to Cluster 15 in time for re-engagement in 2024, the ISO plans to file tariff changes with FERC in July of 2024.

The ISO will also initiate track 3 of this initiative this summer, with a focus on the TPD allocation process. The TPD allocation process is very important to project developers and is currently closely linked to procurement activities of the LSEs. It is necessary for the ISO to consider changes to the TPD allocation criteria within the framework of the proposed changes to the interconnection process from track 2 of IPE, as well as the changes required by FERC in Order No. 2023. The ISO intends to bring a track 3 proposal to the board in late 2024.

POSITIONS OF THE PARTIES

Between June 2023 and March 2024, the ISO held 14 public working groups and stakeholder meetings, with approximately 165 individuals attending each meeting virtually and in-person. Within that timeframe, the ISO posted five papers and received and responded to 7 rounds of written comments from a total of 62 organizations. Early in the initiative, stakeholders participated in working group discussions to establish principles and problem statements related to interconnection request intake and queue management. Participants also proposed concepts and worked with the ISO to explore and refine them throughout the course of the initiative. Many of the concepts in the final proposal were initially developed by stakeholders.

Various types of LSEs are broadly supportive of the reform proposal, with outstanding minor concerns noted in the stakeholder comment matrix. The ISO has received support from investor-owned utilities, community choice aggregators, and municipal utilities who seek continued alignment with the ISO's transmission and interconnection processes. The ISO did receive comment from one non-LSE on the final proposal, noting concerns with the reduced point value for projects with interest from non-LSE offtakers. The proposals to reduce queue volumes to more manageable amounts prior to the study process have received significant stakeholder concern and opposition from resource developers. These concerns are described below.

Developer comments indicated a lack of understanding of the proposed zonal approach and whether it will be assessed at a zonal or a constraint level. The ISO posted an addendum to the final proposal with key clarifications on the zonal approach and will hold a stakeholder workshop on May 16, 2024 to provide clarifications around this approach, in response to stakeholder questions.

Some developers expressed fundamental disagreement with the concept of the 150% cap based on available transmission capacity, arguing that it runs up against open access requirements. The ISO is confident that a percentage-based cap is necessary to ensure more reasonable study volumes – which will result in more meaningful and accurate study results – and designed the 150% limitation because it aligns with resource portfolios from the CPUC and local regulatory authorities, and can therefore align with system need and procurement in a given cluster, even if the need fluctuates from year to year. Furthermore, the ISO has developed the Merchant option, which that will enable continued open access to the transmission system.

Most significantly, many developers opposed the proposed scoring criteria, with particular focus on the LSE allocation process. Independent power producers and developer trade associations note that the LSE allocation process gives LSEs too much influence on the process for selecting which projects will advance to the study process. Further, many developers and trade associations suggested that clear evaluation criteria need to be in place before the LSE allocation process occurs. In addition to seeking more clarity about how best to proceed with the LSE allocation process, developers have expressed concerns that given the opportunity for LSEs to award capacity to their own projects, LSE-owned projects will be inappropriately prioritized in the study process. In response to concerns around the lack of structure for the LSE allocation process, and as noted above, the ISO posted an addendum to the final proposal on May 9, 2024. The addendum clarifies the ISO's expectations for the LSE allocation process. The LSE allocation process will be a topic for discussion with stakeholders during the workshop on May 16th. The ISO is confident that the limits placed upon LSE-sponsored projects are consistent with the amount of LSE-owned project interconnection requests in the interconnection queue over the past six clusters. Nevertheless, the ISO commits to monitoring the results of the LSE allocation process to ensure competition and open access.

Stakeholders also noted concerns with the energy only proposal described above. LSA argued that the proposed treatment of energy only projects was new in the final proposal and suggest that the proposal will lead to inequities between energy only projects depending on the location of the projects. Participating Transmission Owners (PTOs) expressed

different concerns about the proposal, suggesting that the ISO should cap the study of non-reimbursable energy only projects to ensure more reasonable numbers of projects to study.

In response to energy only concerns, the ISO notes that historically, it has witnessed little interest in energy only projects. Specifically, the ISO received zero energy only interconnection requests in clusters 10 to 14, and only two of over 500 interconnection requests in Cluster 15, neither of which originated as energy only projects. The ISO developed this proposal based on stakeholder feedback throughout the initiative and finds it to be an essential component of this reform. It will be critical for the ISO to develop an approach to studying and interconnecting different types of projects in different areas to ensure a clear and transparent process when processing interconnection requests. The ISO will continue to monitor trends in energy only interconnection requests for alignment with resource portfolios and will address any necessary changes to the treatment of energy only projects, if necessary. In addition, the ISO included this historical context in the addendum to the final proposal and will discuss the rationale with stakeholders at the May 16th workshop.

Developers, LSEs, and PTOs were all largely supportive of the proposed contract and queue management provisions. Minor exceptions and nuances are captured in the stakeholder matrix.

CONCLUSION

The ISO provides this information to the ISO Board of Governors for consideration at its special general session meeting on June 12, 2024. If approved by the ISO Board of Governors, the ISO intends to file changes with FERC this summer to facilitate re-engagement with cluster 15. This package of reforms is essential for the ISO to adapt to the increased levels of need and competition for new interconnections to the ISO grid, and to ensure the ISO's continued ability to interconnect large quantities of new generation to the grid to meet near-term reliability needs and longer-term policy requirements.