



California ISO

# 2023 Interconnection Process Enhancements

Track 3 Consolidated Revised Straw Proposal

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Prepared by:

Robert Emmert  
Robert Sparks  
Jason Foster  
Danielle Mills

California Independent System Operator

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## **Executive Summary**

The ISO has completed the first portions of the Interconnection Process Enhancements 2023 stakeholder process following two tracks: track 1 addressed the need to pause cluster 15 and postpone the opening of cluster 16 to allow time for broader reforms to take shape, and track 2 developed the broader transformational changes to the interconnection request intake and queue management process to apply to cluster 15 and beyond. As the track 2 working group and stakeholder process progressed, the ISO identified the need for a third track to address changes to the Transmission Plan Deliverability (TPD) allocation methodology and opportunities to prioritize projects within a cluster to facilitate timely interconnection of resources. With this consolidated revised straw proposal, the ISO continues to explore these issues as track 3 of the Interconnection Process Enhancements 2023 initiative.

For a generation resource to provide resource adequacy (RA), it must have TPD. That is the capability, measured in megawatts (MWs), of the California ISO Controlled Grid – as modified by transmission upgrades and additions modeled or identified in the annual Transmission Plan – to support the interconnection with full or partial capacity deliverability status of additional generating facilities in a specified geographic or electrical area of the ISO Controlled Grid. Because most off-takers require a project to be eligible for RA, the TPD allocation process is very important to project development. Thus, it is necessary for the ISO to consider adjusting the TPD allocation process within the framework of the recent changes to the interconnection process from the track 2 approval by the Federal Energy Regulatory Commission (FERC) and the ISO’s compliance with FERC Order No. 2023.

After releasing the last paper<sup>1</sup>, the ISO received stakeholder comments and convened two working group sessions to discuss challenges with long lead-time or delayed network upgrades and transmission projects as well as consideration of process exceptions or special considerations for long lead-time generation resources. Stakeholder comment from the most recent paper and the working groups is reflected in this document. The ISO has modified the proposal based on stakeholder feedback, however a number of the items explored during working groups will require solutions beyond track 3 of this initiative. To this end, the ISO will coordinate with state and local regulatory authorities, participating transmission owners, and interconnection customers to address alignment between procurement and development of infrastructure and

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<sup>1</sup> The previous paper was split into a revised straw proposal for issues around TPD allocations (track 3A) and a straw proposal for the intra-cluster prioritization and priority for interim deliverability (track 3B). The ISO is now proposing concepts on both topics as a revised straw proposal, consolidating these issues.

generation.

The ISO proposes the following modified or new concepts as a track 3 revised straw proposal:

1. Modifications to the TPD allocation methodology to reorganize TPD allocation groups and establish clear timelines for seeking TPD allocations. The proposed groups are:
  - Projects with a PPA;
  - Projects achieving commercial operation;
  - Conditional group, with fewer restrictions. The ISO also proposes retention of the current “Group D” allocation group as part of this conditional group.
2. A proposal to allow long lead-time generation projects to delay their first attempt to seek TPD to better align with unique procurement milestones.
3. Additional detail for the proposed process for intra-cluster prioritization of projects using existing short-circuit duty (SCD)/reliability headroom before reliability network upgrades (RNUs) are completed.

Based on a lack of stakeholder support for the idea, the ISO is withdrawing its earlier proposal for modifications to the priority for awarding interim deliverability.

The proposed revisions align with the strategic direction established by a December 2022 Memorandum of Understanding among the ISO, California Public Utilities Commission (CPUC), and California Energy Commission (CEC), and are part of a broader ongoing effort to tighten linkages among resource and transmission planning activities, interconnection processes, and resource procurement. The ISO also will continue to work on interconnection reforms through its compliance with the landmark FERC Order Nos. 2023 and 1920.

The process reforms described in greater detail in this paper are designed to accelerate progress toward execution of an interconnection agreement and commercial operation for the most viable and competitive projects in areas that align with local and state resource plans. The goal of the reforms to onboard the generation and storage resources necessary to meet reliability and policy needs in a timely manner. The ISO looks forward to continuing to work with stakeholders to refine this proposal in the interest of deploying new resources to meet the grid’s evolving needs.

## **1. Introduction and Background**

With the release of this paper, the ISO continues track 3 of the Interconnection Process Enhancements 2023 initiative.

The ISO initially set out the Interconnection Process Enhancements 2023 stakeholder process to follow two tracks; track 1 would address the need to pause cluster 15 and postpone the opening of cluster 16. Track 2 would address the development of the broader transformational changes that would apply to cluster 15 and beyond.

On June 12, 2024 the ISO Board of Governors approved the 2023 Interconnection Process Enhancements (IPE) initiative track 2 final proposal, as clarified in the Final Revised Addendum to the IPE track 2 Final Proposal. The final proposal was approved by FERC on September 30, 2024 and became effective October 1, 2024.

During the track 2 stakeholder process, several other issues were identified. Recognizing that while the IPE 2023 track 2 proposals would apply to cluster 15 and later clusters, the issue of how to revise the TPD allocation methodology and manage the unprecedented volume of cluster 14 and earlier queued projects remained. With track 2 reforms in place, the ISO turns its attention to these important issues. It is imperative that the industry continue to move forward with timely resource interconnections while the track 2 proposal is implemented. These additional reforms are needed to keep resources in those clusters advancing as efficiently as possible.

The ISO is committed to bringing new, approved, and necessary transmission resources into service as soon as possible to ensure reliability and an affordable pathway to decarbonization. The pace of generation development and procurement, however, must align with transmission development. The State of California is experiencing heightened levels of competition for new generation, as evidenced by the swelling of the ISO's interconnection queue in clusters 14 and 15. The ISO has approved many new transmission projects in the last two transmission planning process cycles and is committed to facilitating their on-time completion. But many of these projects will take 8-10 years to complete. Available transmission capacity on the system is finite, which limits the amount of TPD the ISO can allocate to assure generators they can deliver to load during stressed system conditions.

### **1.1. Track 3 Working Group Meetings**

Recognizing the dynamic planning, procurement, and project development landscape, the ISO convened stakeholder working groups to discuss TPD modifications in August and September of 2024.

The ISO convened working groups to address three categories of issues regarding project development and TPD Allocation timelines:

1. TPD allocation issues for projects with long lead-time or delayed Deliverability Network Upgrades (DNUs) approved in the ISO Transmission Planning Process (TPP).
2. TPD allocation issues for projects with long lead-time or delayed Reliability Network Upgrades (RNUs) where the RNU only moves forward if funded by the projects needing the RNU.
3. TPD allocation issues for long lead-time resources that meet the defined resource policy goals of local regulatory authorities for specific technologies and project locations.

Working group discussions helped the ISO better understand some of the inherent challenges described in the scenarios above, but also clarified that a number of these challenges extend beyond the TPD allocation process. Solutions will therefore also need to go beyond track 3 of this initiative. In this track of the IPE initiative, the ISO is working to develop reforms that will encourage continued progress toward commercial online dates and reward active and advanced projects with deliverability in a timely manner. This is a substantial task and one that the ISO hopes to improve with continued feedback from stakeholders. The ISO looks forward to ongoing coordination with the CPUC and Local Regulatory Authorities (LRAs) to better align procurement and interconnection milestones. The CPUC's Reliable and Clean Power Procurement Program (RCPPP) will further inform the ISO's efforts to better align planning, procurement, interconnection, and deliverability awards and retention to address some of the challenges discussed in working group meetings.

Further coordination with participating transmission owners (PTOs) to maintain development timelines for network upgrades and transmission development will be critical to bringing new resources online when needed to meet policy and reliability objectives. To this end, the ISO will continue to provide transparency on the status of network upgrades and transmission development through the Transmission Development Forum, which the ISO convenes twice a year.

## **1.2. Scope of the Track 3 Revised Straw Proposal**

The previous track 3 paper was split into a revised straw proposal for issues around TPD allocations (track 3A) and a straw proposal for the intra-cluster prioritization and priority for interim deliverability (track 3B).

The ISO now proposes to advance both concepts, plus a new set of considerations for

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long lead-time generation resources, on the same track in this revised straw proposal.

This track 3 revised straw proposal addresses three key issues:

1. Modifications to the TPD allocation process;
2. Considerations for certain long lead-time generation resources seeking TPD; and
3. The process for intra-cluster prioritization of projects' use of existing short-circuit duty (SCD)/reliability headroom before all RNUs are completed.

California's ambitious decarbonization goals and the large quantities of new clean resources required to meet them have caused the ISO to receive unprecedented numbers of interconnection requests from interested resource developers over the past several years. Many of these requests are in areas that have not been prioritized in the state's resource planning. The ISO and its stakeholders have been working to re-imagine the grid interconnection, prioritization, and coordination processes to ensure resource procurement and queuing are effectively oriented toward planned and existing transmission and interconnection capacity. These processes also must align with transmission development necessary for longer-term resource expansion.

Section 2 describes the revised straw proposal elements related to modifications to the TPD allocation and retention processes, considering the earlier discussions and iterations including comments received on previous track 2 proposals on this matter. Section 3 proposes new considerations for long lead-time generation resources and asks for stakeholder feedback on whether a more expansive set of considerations is necessary for interconnecting these resources. Section 4 provides additional detail on a proposal for intra-cluster prioritization of projects seeking to use existing short-circuit duty (SCD)/reliability network upgrade (RNU) headroom before RNUs are completed. Sections 5 and 6 outline next steps for the initiative and approvals.

The ISO anticipates that track 3, like earlier tracks, will result in tariff changes. The ISO plans for these proposed tariff changes to go only to the ISO Board of Governors, not to the Western Energy Markets Governing Body, because the changes apply to the ISO-controlled grid and the ISO is not proposing changes to real-time market rules. The ISO anticipates this will continue to be the case independent of potential outcomes of the West-wide Governance Pathways initiative.

## 2. Modifications to Transmission Plan Deliverability Allocations

### 2.1. TPD Allocation Process Modifications

#### Background

Because most off-takers require a project to be eligible to meet their resource adequacy (RA) obligations, the TPD allocation process is very important to project developers. The CPUC resource portfolios and non-CPUC jurisdictional resource plans designate the specific resource types and capacity to be developed, which the TPP uses to determine the transmission projects necessary to support those specific new resource requirements. This can result in the CPUC or a local regulatory authority (LRA) designating an area for significant resource development that would not typically be the focus of large transmission expansion due to the relatively lower load levels and low load growth of the area. When such an area becomes the focus of significant generation development due to an emerging generation technology or an opportunity for resource diversity, a large transmission project may be needed to support the emerging need. In these circumstances, the basis for the TPP project is to serve the specific technologies in the portfolio. In other words, the TPP project would not be needed but for the CPUC or LRA portfolio identifying the technology at the specific location.

In the current environment of accelerated targets for resources in the near-term horizon, there are challenges related to when it is most advantageous for projects to enter the interconnection queue. Projects aligned with the recent year's Integrated Resource Plan (IRP) and TPP portfolios will likely need to stay in the queue for a number of years, waiting for completion of required upgrades. The absence of LRA procurement authorization for projects with potential commercial operation dates aligning with long lead-time upgrades adds further uncertainty for project developers. Projects become eligible to seek an allocation after the cluster studies are completed and then have a limited period where they are eligible to seek an allocation before being converted to Energy Only status. The TPD allocation process gives highest priority to projects that have executed a power purchase agreement (PPA) or are shortlisted for procurement. For projects with longer lead-time network upgrades, the window of opportunity to seek an allocation can be several years before their network upgrades are completed and possibly before load-serving entities are seeking to procure projects with later commercial operation dates (CODs).



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In some cases, the transmission planning process develops transmission projects to meet the policy goals of LRAs for specific resource technologies in specific locations. The ISO must ensure such transmission capacity is reserved for the specific technologies a transmission project is designed to serve. It may take many years for the transmission project to be permitted, constructed, and go into service, requiring the associated TPD to not be allocated until the emerging technology is ready to enter the TPD allocation process. An example is transmission being developed to support the significant amounts of offshore wind designated by the CPUC portfolio for Northern California.

The following provides a reference to the existing TPD allocation groups, the eligibility requirements for each and the order in which the groups are considered for potential allocation of available and planned TPD capacity.<sup>2</sup>

The ISO allocates TPD to the following four groups, A – D:

- (A) To Interconnection Customers that have executed PPAs, and to Interconnection Customers in the current Queue Cluster that are Load Serving Entities serving their own Load.
- (B) To Interconnection Customers that are actively negotiating a power purchase agreement or on an active short list to receive a power purchase agreement.
- (C) To Interconnection Customers that have achieved Commercial Operation for the capacity seeking TPD.
- (D) To Interconnection Customers electing to be subject to GIDAP Section 8.9.2.3.

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<sup>2</sup> [Generator Interconnection and Deliverability Allocation Procedures](#) BPM Section 6.2.9.4 Second Component of the Allocation Process: Allocating TP Deliverability

Table 1

Allocation Group	Project/Capacity Status	Commercial Status	Allocation Rank
A	Any project (active IR or achieved commercial operation)	Executed power purchase agreement requiring FCDS or interconnection customer is an LSE serving its own load	Allocated 1st
B	Any project (active IR or achieved commercial operation)	Shortlisted for power purchase agreement or actively negotiating a power purchase agreement	Allocated 2nd
C	Any project that achieved commercial operation	Commercial operation achieved	Allocated 3rd
D	Any active project that meets the allocation group D criteria	See criteria above	Allocated 4th

The following is a summary of the ISO's proposal from the track 3A revised straw proposal.

1. Rename allocation groups A, B and C to represent their actual eligibility requirements – PPA group, Shortlist group, and Commercial Operation group, respectively.
2. The ISO proposed discontinuing TPD allocation group D.
3. Any project that did not receive an allocation and is or has been converted to Energy Only and later provides a PPA to modify its COD, must provide a PPA that specifies an Energy Only product. Energy Only projects cannot remain in the queue based on a PPA that is contingent on receiving or that requires TPD.
4. Discontinue the parking process.
  - 4.1. All projects must make any required increases to their Commercial Readiness Deposits following the completion of the cluster studies on the required due dates as defined in the ISO's compliance filing for FERC Order No. 2023.
  - 4.2. Once a project receives its requested TPD allocation, it must accept it or withdraw. It may not decline the allocation to re-seek TPD the following year.
5. Projects will have three consecutive annual opportunities to seek an allocation, beginning with the TPD allocation request window for projects seeking an allocation

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that closes March 15 during the cluster's interconnection facilities study. March 15 of each year will be the due date for projects seeking an allocation of TPD.

- 5.1. After the third opportunity to seek an allocation, projects that have not received an allocation will be converted to Energy Only.
6. Energy Only projects will only be eligible for an allocation through the Commercial Operation group, regardless of how they became Energy Only.
  - 6.1. This will commence with the 2026 TPD allocation cycle for all cluster projects in the queue. Projects in clusters prior to cluster 15 that are Energy Only will have one additional opportunity during the 2025 TPD allocation year to seek an allocation under all allocation groups.
  - 6.2. Energy additions, added through the modification process, will be Energy Only and remain Energy Only and be permitted to seek a TPD allocation only through the Commercial Operation group, regardless of whether the requested energy storage addition is before or after COD (via an Material Modification Assessment (MMA) or Post-COD modification). Generating Facilities that complete a TPD transfer that result in a portion of a project becoming Energy Only may seek a new allocation only through the Commercial Operation group.
  - 6.3. Projects that have a Partial Capacity Delivery Status may seek an allocation for the remaining portion of the project without an allocation within the three opportunities noted in section 5 above. For example, if a project receives a partial allocation in the first cycle, it may seek an allocation in the PPA or Shortlist groups in the second and third cycles. If a project receives a partial allocation in the third cycle, it will be considered Partial Capacity Delivery Status (PCDS) and will not have additional opportunities to seek an allocation for the portion of the project without an allocation until the portion of the project without an allocation achieves COD.
  - 6.4. For Energy Only generating units that have achieved COD, the ISO will require a flat fee of \$5,000 to seek a TPD allocation in the cycle, due with the TPD request.
7. Generator Interconnection Agreement (GIA) tendering, execution, and associated financial requirements are as defined in the ISO's FERC Order No. 2023 compliance filing, irrespective of TPD cycles.
8. Beginning in 2025, the "TPD seeking request" due date will be March 15, and the "TPD retention request" due date will be February 1, 45 days prior to the TPD seeking TPD requests. The February 1 due date for retention requests will allow

interconnection customers that are not able to retain their TPD through the retention process to seek a new allocation in the March 15 process for seeking an allocation (if the cluster has not exhausted its three opportunities to seek an allocation).

9. Requests and substantiating documentation will be assessed based on the documents submitted by the TPD-retention or TPD-seeking request due dates. Documents required in the request processes that are not received by the request due date will not be accepted.
10. The proposed modifications to the TPD scoring criteria are not summarized here to save space, but a revised proposal is provided in the proposal section.

## **Stakeholder feedback and discussion**

The stakeholder comments summarized below were based on the proposal described above and stakeholder comments from the working group meetings August 28 and September 4, 2024.

### *Elimination of parking*

Rev Renewables does not support elimination of parking. The ISO continues to propose eliminating the parking process because FERC Order No. 2023 modified the requirements for the tendering and execution of a GIA, and the associated financial requirements, inhibiting use of parking without disruptions to the queue. The ISO notes that under the new Order No. 2023 requirements, all projects—regardless of the TPD allocation process or any changes to it—will be required to execute a GIA and submit a GIA deposit shortly after the interconnection facilities study. Projects unwilling to do so while seeking TPD allocations should withdraw to avoid incurring further costs.

### *Allocation group D*

The ISO originally proposed discontinuing TPD allocation group D, but communicated its reconsideration of that proposal during the working group meetings following the IPE Track 3A revised straw proposal. During those meetings, the ISO sought stakeholder input on the question of whether allocation group D should be kept as it operates now, removing the restrictions and have the group D allocations reduce the available TPD capacity for the cluster studies. Stakeholder opinion is split on the issue. Of those commenting, ACP, EDF, GridStor, New Leaf, Pattern, and Terra-Gen supported retaining allocation group D. AES, the CPUC, Golden State, Sonoma, and Southern California Edison (SCE) supported removing it. Six stakeholders requested more information on the details of the issue. ACP suggested adding new allocation groups for

agreements less firm than a PPA. EDF suggested a new allocation group for projects affected by long lead-time DNUs.

As a result of stakeholder discussion, comments, and further consideration of how best to enhance the overall TPD allocation process, the ISO is now proposing to create a new “conditional” allocation group. The group would be similar to the current group D, but without the group D restrictions. The capacity allocated to this group would reduce the amount of available TPD used to determine the project capacity that could be studied in the next cluster.

*Three consecutive annual opportunities to seek an allocation*

ACP-California, AES, ENGIE NA, Golden State Clean Energy, LSA, and New Leaf Energy recommend that projects be allowed more than three opportunities to seek TPD. Golden State Clean Energy recommended readiness requirements that make a project eligible to seek TPD for a fourth and fifth year, such as (i) having a draft environmental report (permitting), (ii) having an executed PPA, (iii) expansion with existing gen-tie headroom, (iv) gen-tie site control, or (v) any of the ISO’s proposed GIA scoring options. The ISO continues to propose a scoring methodology within each of the allocation groups, but does not agree it is appropriate to include criteria for allowing additional opportunities to seek TPD based on similar scoring criteria. Other than an executed PPA, which allows a project to receive an allocation, the suggested criteria should be associated with a project’s GIA milestones rather than used to obtain more opportunities to seek an allocation.

NextEra, Rev Renewables, Six Cities, SCE and Terra-Gen, supported three consecutive opportunities, although Terra-Gen recommends projects be allowed to defer the initial TPD opportunity during the facilities study and begin their three opportunities after the facilities study. The ISO considered Terra-Gen’s recommendation but based a lack of stakeholder interest in having an opportunity to seek an allocation during the facilities study, the ISO has simplified its proposal to have the three opportunities for an allocation of TPD begin after the facilities study report has been published, keeping all cluster projects on the same schedule for seeking and retaining TPD. The ISO continues to maintain that three opportunities to retain a Conditional allocation is more than what the current process provides and is sufficient for a project to demonstrate its viability for obtaining a PPA.

MN8 Energy asked the ISO to confirm that PCDS awards can continue to seek TPD for the remainder of its project until it gets a full award or until it has failed to get an award in three consecutive cycles. The ISO confirms that that is the proposed process related to PCDS.

*Opportunities for Energy Only projects*

The CPUC, Pattern Energy, Rev Renewables, Six Cities, and SCE support the ISO proposal that Energy Only projects will be eligible for an allocation only through the Commercial Operation group, regardless of how they became Energy Only. Nine commenters did not provide comments on this portion of the proposal, including a number of LSEs. The remaining commenters oppose the proposal. Some who oppose requested that Energy Only projects reaching COD be allowed to request a TPD allocation in any allocation group that applies, not just the Commercial Operation group. The ISO respectfully disagrees. Energy Only projects have the potential to need both local and area deliverability capacity that FCDS projects are counting on, and in some cases are funding. Under the current proposal, many FCDS projects will have a Conditional TPD allocation allowing them to be of interest by LSEs seeking to contract with projects with FCDS and an allocation of TPD. Allowing Energy Only projects to seek TPD in the PPA allocation group could result in the ISO no longer being able to guarantee that some FCDS projects with an allocation are truly deliverable.

The ability to give Energy Only projects deliverability in the Commercial Operation group is due to there being enough TPD available for that group after completing the allocations to the PPA group. This ensures that Energy Only projects are not competing for TPD with FCDS projects that have a PPA. The ISO reiterates from the prior paper that from cluster 10 forward, only one project has gone into commercial operation as Energy Only, and only one Energy Only project has gone into commercial operation as FCDS after receiving an allocation having a PPA. While many Energy Only projects remain in the queue hoping to obtain a PPA that requires a TPD allocation, most have not been successful. Even if an Energy Only project were to obtain such a PPA, there is no guarantee that the TPD studies will show the project to be eligible because a Delivery Network Upgrade (DNU) could be found to be necessary.

The FERC-approved tariff provisions from IPE track 2 require that projects in cluster 15 and beyond that enter the queue as Energy Only must remain Energy Only with no ability to obtain TPD. These projects entered the queue intending to be Energy Only, and are not eligible to compete for TPD with projects that scored high enough to be studied and compete for TPD. The ISO does not want to incentivize Energy Only projects that were converted to Energy Only after being unable to obtain a PPA to pursue a path that encourages them to linger in the queue in hopes of one day getting TPD, potentially taking TPD away from new, high viability scoring projects, coming into the queue. These projects will only be allowed to obtain TPD after going into commercial operation.

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Some stakeholders state that it poses no harm to allow Energy Only projects to remain in the queue seeking FCDS with the PPA group. The ISO disagrees. Energy Only projects retain their RNUs that by and large are not being constructed because Energy Only projects are not moving forward. This results in unnecessary RNUs being required for later queued FCDS projects that are costly and time-consuming for the PTOs to build, hindering their ability to proceed on a timely basis and hindering LSE procurement targets and California's ability to meet its goals to reduce carbon emissions.

Relative to the treatment of technology additions, ACP, Clearway, EDF-R, ENGIE NA, and Pattern Energy commented that requiring technology, including battery energy storage systems (BESS) additions to wait until they achieve COD could stop projects from adding a technology altogether, as the risk to develop the addition to commercial operation prior to having a path to TPD is too great, and that these additions should be able to seek TPD in all allocation groups. Clearway adds that technology additions do not need to wait for upgrades, some of which are 8-10 years to completion, and are therefore more viable and more likely to get a PPA, but only if they have a TPD allocation. Pattern Energy provided comments supporting the restriction of Energy Only resources to the Commercial Operation group, but opposing the proposed restriction for BESS additions to seek only in the Commercial Operation group, stating that the proposal should reward projects which seek to interconnect with deliverability, and which are able to secure PPAs commensurately, whether those projects are modifications, queue positions, or take any other future path to interconnection. LSA voiced support for an additional opportunity for projects that submitted Material Modification Assessments (MMA) applications for storage additions three or more months before the last affidavit due date, stating that such projects should have an additional opportunity in 2026 to apply for a TPD allocation, and that Fast Track projects and energy storage additions should have the same opportunities as they are similarly situated. SEIA suggests that the ISO has not adequately justified the need to require battery additions made via the MMA process to proceed only as Energy Only. The ISO allowed for technology additions to fulfill an urgent need for new resources and a new technology that the queue process was unlikely to meet. The technology additions also facilitated the transition of the deliverability methodology for solar, allowing the system to pivot to a much higher annual rate of development in a very short time. The ISO believes that need has been fulfilled and there is no longer a reason to continue allowing technology additions to existing interconnection requests. The ISO is concerned that adding technology to an existing interconnection request or generating facility is a way to bypass the queue cluster study process and the new scoring criteria to enter the queue. Fast Track projects are prohibited from seeking a TPD allocation.

MN8 Energy suggested a grandfathered version of the proposal for BESS additions using the previous Groups A-D to support projects that made commercial decisions based on the current rules so they are not retroactively impacted by the changing rules. The ISO will allow technology additions that have been approved through an MMA by the 2025 TPD allocation request due date to seek an allocation under the PPA group and the current Shortlist allocation group.

AES sought clarity on whether projects would be able to transfer FCDS to storage added through the MMA process, or if this proposal would negate that possibility. The ISO confirms that projects successful in the deliverability intake scoring process may transfer their deliverability allocation between technology resources within the same queue position.

#### *TPD Allocation Scoring Criteria*

Many stakeholders had concerns with the proposed scoring for the projects that have a PPA. The ISO has revised the points for a PPA where the only extra points would be for projects (competing for an allocation within the PPA group) with a PPA with an off-taker that is procuring the project capacity to meet its own RA obligation. The ISO believes it is appropriate because TPD capacity is built as policy-driven upgrades and is paid for by ratepayers in support of the RA program. Projects with a PPA with an off-taker that does not have an RA obligation must meet the additional requirements for such a PPA as provided in the ISO Tariff Appendix KK, Section 8.9.2. These projects should not have the same level of priority as projects with PPAs with off-takers procuring capacity to meet required RA procurement obligations.

Clearway, Pattern, Rev and SCE support the added scoring criteria for the expansion of a generation facility, while ACP-California, ENGIE, Golden State, GridStor, Intersect, MN8, New Leaf, and SEC oppose the proposal. In its support, Pattern suggested that the expansion criteria include the addition of storage through a post-COD modification and for a transfer of surplus interconnection service qualify as an expansion so these projects should be allocated expansion points. Other stakeholders asked a number of clarifying questions and expressed concerns with the criteria. Because the ISO proposed the scoring criteria for the expansion of a generation facility to gauge stakeholder support, the ISO is dropping the expansion of a generation facility criteria because more stakeholders opposed than supported.

Intersect proposed the addition of two equipment procurement criteria. The ISO does not believe that these additional scoring criteria are necessary for the PPA group because they are unlikely to be needed as a tie-breaker within that group. The ISO



further believes that the scoring criteria proposed is sufficient for the Conditional group and further complication of the scoring for that group is not warranted.

## **Proposal**

### *Allocation Groups*

The ISO proposes to reduce the allocation groups to three:

1st priority group – the PPA group (formerly group A) for projects with a PPA that meet the existing PPA eligibility requirements (provided in the ISO Tariff Appendix KK, Section 8.9.2).

2nd priority group – the Commercial Operation group (formerly group C) for eligible Energy Only projects that go into commercial operation.

3rd priority group – Conditional group (new group) for any projects without a PPA, similar to the current group D, but a distinct new group without group D restrictions. Any projects without a PPA would by default be included in the Conditional allocation process with a scoring process to determine which projects receive available TPD. Conditional allocations must be retained in the following TPD allocation cycle with an executed PPA. If not retained, projects can again seek an allocation if the project's cluster is eligible to seek an allocation. The TPD capacity allocated through the Conditional group would be included in the calculation for determining the amount of available TPD for the next cluster study, thereby reducing the amount of project capacity to be studied in the next cluster.

The ISO proposes to no longer provide allocations to projects that are shortlisted and proposes to keep TPD allocation group D as a legacy allocation group for the pre-cluster 15 projects that have selected group D. Group D would be closed for clusters 15 and beyond. Cluster 14 would be able to retain a group D allocation by being shortlisted, but only in 2025. After the 2025 allocation cycle, projects with group D allocations will have either retained it with a PPA or lost the allocation, but the projects that selected group D would continue to be subject to the group D restrictions in Appendix KK 8.9.2.3.

The three proposed allocation groups simplifies the TPD process for developers, LSEs, and the ISO. It provides a simplified 2-step TPD track for all projects where all eligible projects without a PPA would automatically be processed for an allocation through the Conditional group. It eliminates the two-step retention process, avoids concerns that stakeholders have raised regarding questionable practices in project short-listings, and

simplifies a complex project allocation tracking process. Moreover, it maximizes the capacity from each cluster that is able to compete for a PPA to meet accelerated procurement targets and puts the bilateral procurement process in the driver's seat for determining the value and viability of projects competing for a PPA. This levels the playing field in procurement where most projects would have a Conditional TPD allocation, allowing the procurement process to focus on other high value project attributes.

#### *Multi-fuel projects receiving an allocation with PPAs*

When seeking an allocation under the PPA group for a multi-fuel project, the interconnection customer will request a specific MW capacity for each fuel type for which it seeks an allocation. In addition, the request must provide the desired ranking order for each fuel type to be considered. For example, 50 MW for a BESS portion of a project to be considered first, and 100 MW for a PV portion of a project to be considered second. If any of the various fuel type components of a project receives its requested TPD allocation, the interconnection customer must accept the TPD allocation for that particular component of the project. If the customer does not, the project will be modified by removing that fuel type from the project. For example, if a 100 MW solar project with a 50 MW BESS that seeks FCDS for the BESS, if the BESS receives 50 MW of TPD, it must accept the allocation or it must remove the BESS portion from the project. The 100 MW solar portion of project can remain active as a stand-alone solar project. However, if any fuel type portion of a project receives a partial allocation it may decline or accept that fuel type's allocation. In that case, the interconnection customer may re-seek an allocation of TPD or additional TPD for that fuel type portion of the project in any future allocation cycle it is eligible to participate in.

#### *Parking*

The ISO proposes to discontinue the parking process. All projects now must make any required increases to their Commercial Readiness Deposits following the completion of their studies. GIA tendering, execution, and associated financial requirements are as defined in the ISO's FERC Order No. 2023 compliance filing, irrespective of TPD cycles and the ability of a project to obtain TPD. The ISO understands that developers have concerns with the new FERC requirements, and the ISO and stakeholders must seek to integrate the TPD allocation process with the FERC Order's requirements in the most logical and workable manner possible. Interconnection customers wary of executing a GIA and submitting additional deposits without first getting a TPD allocation may withdraw before incurring additional financial risk. Ensuring GIAs are executed and GIA deposits are submitted on a timely basis, consistent with FERC's requirements, will help maintain construction schedules and avoid backlogs in the queue.

Pre-cluster 15 projects will continue with the TPD allocation procedures in accordance with ISO Tariff Appendix DD. Cluster 14 projects have used their initial opportunity to park and as with cluster 13, it is likely that no cluster 14 projects will be eligible to park a second time. This essentially ends the parking process for all pre-cluster 15 projects as well.

#### *Opportunities to seek TPD*

Projects will have three consecutive opportunities<sup>3</sup> to seek an allocation of TPD. With parking eliminated, projects will no longer need to qualify for parking to seek an allocation in these three opportunities. The first opportunity will be in the TPD allocation request window following the interconnection customer's receipt of its interconnection facilities study report. After the third opportunity to seek an allocation, projects that have not received an allocation will be withdrawn. Projects that do receive an allocation through the Conditional group, but are unable to retain their allocation in the next request window by demonstrating an eligible PPA will be withdrawn.

- The ISO seeks stakeholder input on whether projects should be able to seek an allocation during the interconnection facilities study by demonstrating they have a PPA. The Conditional group would not be open to projects until after the cluster's interconnection facilities study is complete. If a project with an eligible PPA does not receive an allocation in this opportunity, it could seek an allocation along with the projects in its cluster during the three opportunities following receipt of their facilities study report.

The ISO's previous proposal would have required projects that exhausted their three opportunities to receive TPD to convert to Energy Only. However, Energy Only projects have the potential to need both local and area deliverability capacity that FCDS projects are counting on, and in some cases funding. Under the current proposal, many FCDS projects will receive a Conditional TPD allocation positioning them to be of interest to LSEs seeking to contract with projects with an allocation of TPD. Allowing Energy Only projects to seek TPD in the PPA allocation group could result in the ISO no longer being able to guarantee that some FCDS projects with a Conditional allocation are truly deliverable. From cluster 10 forward, only one project has gone into commercial operation as Energy Only, and only one Energy Only project has gone into commercial operation as FCDS after receiving an allocation having a PPA. While many Energy Only projects remain in the queue hoping to obtain a PPA that requires a TPD allocation, that

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<sup>3</sup> The opportunities to seek and retain allocations of TPD are typically done on an annual basis, but circumstances may result in the timing of the successive opportunities to be more than one year apart.

has been proven to be an unsuccessful strategy. Even if an Energy Only project were to obtain such a PPA, there is no guarantee that the TPD studies will show them to be eligible because a Delivery Network Upgrade (DNU) could be found to be necessary. Allowing projects to remain in the queue after having been converted to Energy Only has proven to be a failed strategy. Therefore, projects that have exhausted their three opportunities to receive TPD will be withdrawn. This will prevent stalled projects from reserving reliability related capacity and causing more viable projects to require costly and long lead-time RNUs that will likely never be needed.

#### *Eligibility of Energy Only projects*

The 2025 allocation cycle will be the last opportunity for Energy Only projects in the queue to seek an allocation through either the PPA or Shortlist allocations groups. This will give projects in clusters prior to cluster 15 that are Energy Only one additional opportunity during the 2025 TPD allocation cycle to seek an allocation under these two allocation groups. Beginning with cluster 15, per ISO Tariff Appendix KK Section 4, *Interconnection Requests that proceed to the Cluster Study based on the criteria for Energy Only Interconnection Requests may not obtain Deliverability for that Generating Facility and any associated Generating Units thereafter, including without limitation through transfers, modifications, or the TP Deliverability allocation process. Expansions to Energy Only Generating Facilities may receive Deliverability if their Interconnection Requests proceed to the Cluster Study based on the criteria for Interconnection Requests seeking Deliverability.*

- Technology additions, added through the modification process to projects that were successful in the deliverability intake scoring process<sup>4</sup>, will be Energy Only and remain Energy Only, and be permitted to seek a TPD allocation solely through the Commercial Operation group, regardless of whether the requested addition is before or after their COD (via an MMA or Post-COD modification). Generating facilities that complete a TPD transfer that results in a portion of a project becoming Energy Only will be required to downsize to the portion of the project that has TPD. Projects in clusters prior to cluster 15 that added a technology as Energy Only via an MMA that was approved before the 2025 TPD allocation request due date will have one additional opportunity during the 2025 TPD allocation year to seek an allocation for such addition under the PPA group and the current Shortlist allocation group.

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<sup>4</sup> Technology additions to Energy Only projects will always be Energy Only with not opportunity to receive TPD.

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- For Energy Only generating units that have achieved COD, the ISO will require a flat fee of \$5,000 to seek a TPD allocation in the cycle, due with the TPD allocation request.

Any project that is Energy Only and later provides a PPA to modify its COD, must provide a PPA that specifies an Energy Only product. Energy Only projects cannot remain in the queue based on a PPA that is contingent on receiving or that requires TPD.

*Documentation*

The ISO will assess requests and substantiating documentation based on the documents as submitted by the TPD-retention or TPD-seeking request due dates. Documents required in the request processes that are not received by the request due date will not be accepted.

*Modifications to the TPD scoring criteria:*

Table 2 below modifies the scoring methodology described in the GIDAP Business Practices Manual for prioritizing of projects seeking a TPD allocation within the same group where there is insufficient TPD for the whole group. Table 2 applies to all groups except the Commercial Operation group. However, the points associated with the PPA group will only be available to projects that have a qualified PPA per ISO Tariff Appendix KK, Section 8.9.2. For the 2025 TPD allocation year, Table 2 will be used for projects seeking an allocation through the Shortlist group as well.<sup>5</sup> This prioritization is used to determine the order that projects are considered for receiving TPD within each allocation group. The Commercial Operation group will have its own scoring methodology, described below.

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<sup>5</sup> In this proposal, the Shortlist allocation group is only available for pre-cluster 15 projects and only within the 2025 TPD allocation year. After 2025, the Shortlist group will no longer be available, and any projects having received an allocation from the Shortlist group in 2025 would be required to demonstrate an eligible PPA by the next allocation year to retain the allocation.

Table 2

Points (select one per category)	Permitting (existing process)	Power Purchase Agreement Status (PPA group only)	GIA Status
10	Has Final government permit to construct or Has authorization to construct with a qualifying exemption <sup>6</sup>		The Interconnection Customer has provided payment and security to the Participating TO <sup>7</sup>
7			The Participating TO has received written authorization to proceed with construction from the Interconnection Customer <sup>8</sup>
5	Draft Environmental Report w/no significant impact that cannot be mitigated	Off-taker is procuring the capacity to meet its own RA obligation	
3	Data adequate		Has provided to the ISO the required GIA Deposit <sup>9</sup>
1	Applied		
0 (Min. Req.)		Has an executed PPA	

*Tie-Breaker*

The project's earliest achievable in-service date will be used as a tie-breaker between projects with equal scores with the earlier in-service date getting a higher ranking.

*Scoring for the Commercial Operation group*

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<sup>6</sup> Example: In accordance with CPUC General Order NO. 131-D;  
<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M521/K748/521748942.pdf>.

<sup>7</sup> In accordance with Article 5.6.4 of the LGIA (Appendix LL). Performance of these obligations under SGIA (Appendix MM) shall be as defined in Article 5.6.4 of Appendix LL (LGIA).

<sup>8</sup> In accordance with Article 5.6.3 of the LGIA (Appendix LL). Performance of these obligations under SGIA (Appendix MM) shall be as defined in Article 5.6.3 of Appendix LL (LGIA).

<sup>9</sup> In accordance with Appendix KK, Section 13.3.

The prioritization of allocations for the Commercial Operation group is proposed to be in the following order:

1. Projects that demonstrate having a RA contract
2. Lowest Distribution Factors (DFAX)

Section 8.9.1 of the GIDAP and RIS will be the basis for reserving TPD from public policy network upgrades in the TPP to the long lead-time resources those upgrades were intended to support, namely, the resources that meet specific CPUC public policy requirements. Currently, such resources include offshore wind, out-of-state wind, geothermal, and long-duration energy storage projects. Sections 8.9.1(b) and (c) allow the ISO to reserve TPD capacity for resources outside the ISO and resources internal to the ISO that are designated as resource technologies and in locations that are needed to meet state policy goals.

### **3. Special Considerations for Interconnection of Long Lead-Time Generation Resources**

#### **Background**

The ISO is considering special exceptions or extensions for interconnection of certain long lead-time generation resources. The ISO currently has authority to give certain long lead-time resources points in the interconnection request scoring process, and has exercised its authority under the tariff to reserve TPD for certain long lead-time generation resources.

Appendix KK, Section 8.9.1 provides the ISO with authority to reserve deliverability for certain resources.

#### **8.9.1 First Component: Representing TP Deliverability Used by Prior Commitments**

The CAISO will identify the following commitments that will utilize MW quantities of TP Deliverability:

- (a) The proposed Generating Facilities corresponding to earlier queued Interconnection Requests meeting the criteria set forth below:
  - (i) proposed Generating Facilities in Queue Cluster 4 or earlier that have executed PPAs with Load-Serving Entities and have GIAs that are in good standing.
  - (ii) proposed Generating Facilities in Queue Cluster 5 and subsequent Queue Clusters that were previously allocated TP Deliverability and have met the criteria to retain the allocation set forth in Section 8.9.3.

- (b) **any Maximum Import Capability included as a planning objective in the Transmission Plan** and a Subscriber Participating TO that is a non-contiguous portion of the CAISO BAA can use Maximum Import Capability made available by Participating Generators and System Resources if such allocation is made available in accordance with Section 40.4.6.2.1 (Step 13) of the CAISO Tariff; the available Maximum Import Capability made available by the Load Serving Entities that have access to Subscriber Rights until the Load Serving Entity(ies) cease using this Maximum Import Capability allocation or Delivery Network Upgrade(s) pursuant to Section 4.3A4.2(b) of the CAISO Tariff is completed to support the Subscriber Rights and then the TP Deliverability will be awarded to such Subscriber consistent with Section 8.9.1(c) of this GIDAP;
- (c) **any other commitments having a basis in the Transmission Plan**, including any commitments established due to a Subscriber's exercise of its first option to acquire Deliverability made possible by Delivery Network Upgrades pursuant to Section 4.3A.4.2(a) of the CAISO Tariff, provided this first option has been exercised before the Subscriber is no longer eligible to apply for TP Deliverability allocation under Section 8.9 of this GIDAP. Generating Units possessing Subscriber Rights seeking to receive TP Deliverability must submit a request and will be subject to Sections 8.9.2 and 8.9.3 of this GIDAP. For each Subscriber that submits a TP Deliverability request, the CAISO will provide the Subscriber with a Queue Position.

The ISO lists the capacity of deliverability that has already been allocated and the locations on the system where it was allocated below:

The CPUC portfolios for the 2023-2024 transmission planning process had for 2035:

- Wyoming wind – 1500 MW (Eldorado)
- Idaho wind – 1000 MW (Eldorado)
- NM wind – 2328 MW (Palo Verde)
- Offshore wind (North Coast) – 1607 MW
- Offshore wind (Central Coast) – 3100 MW

The CPUC portfolios for 2024-2025 transmission planning process has for 2034 and 2039:

- Wyoming wind (Eldorado)
  - 2034 – 905 MW
  - 2039 – 3000 MW
- Wyoming wind (Tesla)
  - 2034 – 0 MW
  - 2039 – 1500 MW
- Idaho wind (Harry Allen)
  - 2034 – 1060 MW



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- 2039 – 1060 MW
- New Mexico Wind (Palo Verde)
  - 2034 – 2131 MW
  - 2039 – 3536 MW
- Offshore wind (North Coast)
  - 2034 – 931 MW
  - 3039 – 1607 MW
- Offshore wind (Central Coast)
  - 2034 – 2924 MW
  - 2039 – 2924 MW

The 2024 TPD allocation study reserved the following:

- 426 MW of TPD for offshore wind in the Central Coast area by modeling a “generic” resource.

The capacity for offshore wind resources will continue to be preserved in the future TPD study cycles to the amount of offshore wind resources modeled in the baseline portfolio at that time. Since the recent cluster 15 Point-of-Interconnection (POI) mapping information was keyed off the 2024 TPD Allocation study, the available TPD figures shown in that package also reflect the TPD amount held back for Central Coast area offshore wind.

Below, the ISO proposes an additional option for such interconnection customers to defer or extend their first attempt to seek TPD to better reflect commercial development.

## **Stakeholder comment and discussion**

ACP-California, AES, AReM, CESA, ENGIE, Fervo, LSA, PG&E, Rev Renewables, and Terra-Gen requested additional and continued transparency on what types of resources qualify for reserved deliverability, perhaps according to a local regulatory authority, and the capacity that is reserved. Specifically, AES seeks clarity whether reserving the capacity for LLT would result in less TPD available for short lead time resources. The ISO provides complete information on current authority to reserve TPD above. The ISO notes that TPD is inherently finite, resulting solely from LRA public policy needs vetted and approved in the TPP. It is accordingly reserved to ensure achievement of those objectives.

CESA recommends that the ISO leverage the current constraint mapping with TPD allocation spreadsheet to add reserved TPD for each area deliverability constraint. The ISO is currently reflecting reserved TPD in this dataset.

AReM asks to what extent the ISO and CPUC coordinate on transmission capacity that should be reserved. The ISO uses the CPUC and other LRA portfolios to determine what TPD is reserved for such resources. The ISO, CPUC, and other LRAs will work together to develop a process to identify what resources could be eligible for transmission capacity reservation, and under what circumstances we might consider an expiration date for capacity reservations.

The CPUC supports the reservation of transmission capacity to ensure deliverability for specific resources that are identified in TPP portfolios, with an emphasis on a mechanism to prioritize “large, long lead-time, or locationally-constrained resource types.” Currently, the CPUC has identified specific out-of-state resources in the 2022-2023 TPP and offshore wind. The CPUC expressed a desire to coordinate with the ISO to identify what resources could be eligible for additional transmission capacity reservation, and under what circumstances the ISO, CPUC, and other LRAs may consider an expiration date for capacity reservations.

CalCCA asks the ISO to clarify how it will integrate TPD reservations for any unknown out-of-state resources when compared to resources interconnecting to the ISO-controlled grid. This is particularly important to LSEs attempting to meet their IRP requirements that have an allocation of points and would like to have an out-of-state resource considered to meet their needs. Further, such a process also must examine how the ISO would allocate Maximum Import Capability if an LSE places points on an out-of-state resource and/or if there is a separate process for allocating deliverability to LLT resources.

Stakeholders such as ACP-California, the CPUC, CalCCA, Fervo Energy Company, Hydrostor, PG&E, Six Cities, and Sonoma Clean Power supported development of deliverability processes tailored to the specific needs of LLT resources that meet the defined goals of LRAs. They support the ISO enabling long lead-time projects to proceed through the interconnection and deliverability processes in alignment with their development and procurement timelines, and without being prematurely converted to Energy Only.

CalCCA suggests that the ISO take a more expansive view of LLT resources to avoid discriminating against LSEs that are also pursuing LLT resources, suggesting that the ISO consider both centrally-procured resources and resource types designated by the CPUC in their TPP portfolio are counted as LLT for the purposes of allocating TPD.

ACP notes that there is a need to also consider the alignment of timelines for Generator Interconnection Agreement tendering, execution, and associated financial requirements given the unique technological challenges and contracting processes for Long Lead-

Term resources. The ISO appreciates the importance of alignment but notes that these timelines are based on compliance with FERC Order No. 2023, which is still under consideration at FERC, and therefore not easily modified at this point. The ISO currently does not foresee relaxing GIA and deposit requirements, which are critical to maintain construction schedules to bring resources online, however the ISO may consider this as the proposal evolves. In doing so, the ISO would have to consider the new requirements under FERC Order No. 2023.

ACP urges the CAISO to consider this issue after there is a better understanding of the “standard” deliverability allocation rules. The ISO proposes a process below for deferred TPD allocations because it is important to collect feedback from all stakeholders on all dimensions of the process, and because there is a need to resolve these issues for long lead-time generators within the same timeframe as all other generators.

CalWEA suggests the ISO defines this policy more specifically to state that “CAISO will reserve TPD capacity for all location-constrained resources as identified by the CPUC in its most recent Preferred System Plan (PSP) as well as the resources identified in the CPUC’s final decision on Central Procurement.” The ISO appreciates this suggestion and adds consideration of resources identified by local regulatory authorities. PG&E also suggests focusing eligibility on locationally-dependent resources, including offshore wind, geothermal, and multi-day or 12-hour+ long duration storage.

CalWEA continued to explain that all location-constrained resources – projects that must locate in very limited, site-specific locations where commercial-grade resources are present – should qualify for TPD capacity reservation because the CPUC’s portfolio will not be realized without this treatment. According to CalWEA, these resources – namely, geothermal, all types of wind energy (offshore, in-state and out-of-state), and long-duration energy storage – also happen to constitute the diverse generation-resource supply in the CPUC’s Preferred System Plan.

Hydrostor suggested that the ISO define eligibility to be consistent with the CPUC’s definition of long lead-time resources considered for central procurement, which includes long-duration storage resources. The ISO includes long-duration energy storage (LDES) resources in the description of projects eligible to receive points as a long lead-time resource in the interconnection request intake process for cluster 15, and proposes certain conditions – beyond resource technology – in the proposal below.<sup>10</sup>

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<sup>10</sup> California ISO. Cluster 15 Long Lead-Time Resources: <https://www.caiso.com/documents/cluster-15-long-lead-time-resources.pdf>

Hydrostor expressed additional concerns about interconnection study processes and timelines that further delay in-service dates for LDES resources, noting that some of the interconnection study areas that have the potential for beneficial LDES development (e.g., North of Lugo, East of Pisgah) appear to have had deliverability allocated already with little or no deliverability available in cluster 15. The ISO notes that these particular study areas are merchant zones for cluster 15, however the resource and transmission planning processes could trigger more transmission upgrades in these areas in later clusters. The ISO understands Hydrostor's position, which is why the ISO proposes unique treatment for certain long lead-time, location-constrained resources in this paper. However, to the ISO's knowledge, no LDES resources have been identified as policy-driven in any of the CPUC or LRA resource portfolios. Therefore, the ISO currently has not received direction to reserve deliverability in those particular areas. The aforementioned MOU among the CEC, CPUC, and ISO, as well as coordination with LRAs, is critical for reservations of deliverability going forward. This coordination will serve as the basis for the reservation of the deliverability when the state or local regulatory authorities determine those resources are both ready and critically needed. The ISO does, however, understand that certain characteristics of LDES technologies warrant eligibility for the treatment proposed below in the future. The ISO reiterates that LDES resources are included in the description of projects eligible to receive points as a long lead-time resource in the interconnection request intake process for cluster 15. However, without specific guidance in the LRA resource portfolios, the ISO will not be able to reserve capacity for such resources.<sup>11</sup>

CalWEA further suggests a detailed proposal in which:

- The ISO studies a combination of queued and generic (or "phantom") resources at planned substations that fulfill the CPUC's resource plan in the current 2024-2025 Transmission Planning Process, and assign them deliverability in developing the plan. If the queued capacity for each qualifying capacity type is insufficient to meet the CPUC's planning target for that type, the ISO should add sufficient generic capacity in the TPD allocation process to achieve that goal. That capacity should be reserved for the QC16 TPD allocation process in 2028, and for resources in later queue clusters as necessary. The reserved TPD capacity should become available at POIs designated for the designated qualifying resource according to the busbar map, and collector substations

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<sup>11</sup> California ISO. Cluster 15 Long Lead-Time Resources: <https://www.caiso.com/documents/cluster-15-long-lead-time-resources.pdf>

should be planned accordingly until a sufficient amount of projects in these areas materialize, adjusting substation locations as needed.

- The ISO intends to continue to preserve the capacity for offshore wind resources in the future TPD study cycles to the amount of offshore wind resources modeled in the baseline portfolio at that time.
- To ensure that sufficient capacity is reserved to achieve the CPUC's portfolio, if any Central Coast OSW resources convert from qualifying to non-qualifying technologies, the ISO should plan for additional generic offshore wind capacity in the following TPP cycle to make up for the converted capacity.
  - Per the MOU, the ISO must plan for the resources specified in the CPUC's portfolio. The ISO does not intend to allow offshore wind resources to convert from "qualifying" long lead-time resources to non-qualifying technologies. The ISO has also made clear that interconnection customers may not enter the queue as a long lead-time resource and later change the technology. Nor may long-duration energy storage resources that enter the queue as long lead-time resources with a 12+ hour duration later reduce the duration of the storage resource. Therefore it is unnecessary for the ISO to plan for any additional generic offshore wind capacity beyond the CPUC portfolios.
- Prevent qualifying resources that benefit from capacity reservation from converting to non-qualifying resource types, except for some fraction of their net injection to storage to provide reasonable flexibility.
  - The ISO agrees that if a resource enters the queue as an eligible long lead-time resource, it is not allowed to convert to another technology. Doing so would circumvent the interconnection screening process. Any project that accepts long-lead-time points in the screening process must remain as such.
- To prevent the capacity reservation from interfering with capacity that is needed for the mid-term period, interconnection customers should be able to request, during the TPD allocation process release of capacity that would otherwise be reserved for qualifying resources. Capacity should be released to such customers if they prove to the ISO they can come online within the Mid-term Reliability (MTR) timeline (by 2028). New capacity should be planned in the next TPP cycle to make up for what is allocated to MTR resources.
  - The ISO does not agree with this approach. Network upgrades approved in the TPP support different public policies. In several instances, transmission is expressly approved to serve a specific long-term policy need, above and beyond mid-term procurement or generic deliverable

capacity. Specific generating technologies are highly dependent on coordinated transmission development, and it is important that the ISO work with relevant state agencies and LRAs to ensure that the transmission is built and utilized for the appropriate resource to prevent stranded assets in the future. The ISO has and will continue to segregate capacity created toward different public policy needs from the TPP.

Some stakeholders, such as Intersect, LSA, NCPA, and Rev Renewables expressed concerns around the ISO's proposal to reserve deliverability for long lead-time resources. Intersect notes that the track 2 changes will result in LSEs having greater control over which resources are accepted into the cluster study process via their assignment of commercial interest points.

LSA and NCPA expressed concerns around the transparency of the ISO's practice of reserving TPD for specific resource. LSA, in particular, expressed several concerns with the practice of reserving deliverability, noting that offshore wind in the 2023-2024 TPP cycle was included only in the Sensitivity Portfolio, not the Base Portfolio. In other words, according to LSA, the upgrades approved in that planning cycle (or earlier cycles) did not include any upgrades for offshore wind – those came only later, in the 2023-2024 Transmission Plan. LSA expressed concern with the appearance that the ISO subtracted deliverability for offshore wind capacity before any capacity was approved, and argued that this is the equivalent of adding generation projects to interconnection studies but not any upgrades that would be constructed for them. LSA states that the ISO holding back deliverability for offshore wind generation without assuming upgrades for it could have resulted in severe underestimation of available TPD in northern PG&E zones. LSA suggests that the ISO correct this by revising the C15 package now. The ISO did not hold back deliverability for offshore wind without assuming the upgrades where they were required.

NCPA and Six Cities emphasized the importance of including non-CPUC jurisdictional LSE resource needs fully included in the TPP to ensure open access. The ISO appreciates the criticality of including non-CPUC jurisdictional LSE needs in the planning process to ensure transparency and facilitate affordable, reliable access to resources. The ISO includes coordination with LRAs as a central component of determining eligibility for any proposed treatment of long lead-time resources going forward.

Six Cities further noted that absent a mechanism for such resources to provide RA on a temporary or interim basis pending completion of network upgrades, it is unlikely that the resources will be viewed by LSEs as having sufficient value to justify their procurement costs.

SCE suggested that the ISO focus on how best to allocate and retain deliverability for long lead-time resources, and pointed to the same deliverability allocation process used for generic resources, but with further scrutiny on the retention of deliverability based on the development status post PPA execution. SCE suggested that the ISO monitor long lead-time resources' PPA commitments while the resource awaits full execution of the GIA. The ISO believes that uncertainty currently exists for long lead-time resources to determine the best time to enter the queue, meet financial milestones, and seek TPD due to procurement timelines that reach farther into the future. Below, the ISO proposes a mechanism allowing certain long lead-time resources to defer their first opportunity to seek TPD and considers whether additional extensions are necessary to such resources.

Terra-Gen suggested a more balanced and flexible approach to deliverability reservations for long lead-time resources that also provides the ability to secure deliverability for other resource types. The ISO believes that such flexibility would run counter to any efforts to create a distinct set of extensions or requirements for long lead-time resources. Terra-Gen also suggested the ISO assess and mitigate the potential negative impacts of long lead-time reservations on existing projects. The ISO will continue to discuss this issue with stakeholders as well as the CPUC and LRAs to mitigate any potential impacts.

Vistra maintains that the most viable solution to this long lead-time challenge would be to pursue a network service subscription model where interconnection customers request subscription to a network upgrade being considered in a TPP cycle in exchange for receiving a commensurate share of the increased deliverability headroom. Vistra is proposing a process similar to the merchant transmission development process, which they can pursue. To the extent that Vistra seeks modifications to the merchant transmission development process, the ISO suggests proposing this enhancement in the transmission planning process.

Vistra also recommended allowing projects to delay beginning the TPD allocation process until no later than three attempts prior to its commercial viability criteria (CVC) deadline to show proof of one or more executed PPAs. The ISO considered offering opportunities to delay or defer commencement of the TPD allocation process but does not view such a change as aligning with the ISO's track 2 reforms, which seek to encourage interconnection customers to bring more advanced projects to the interconnection queue.

## **Proposal**

### *Eligibility*

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In the same way the ISO determined eligibility for long lead-time resources receiving points in the cluster 15 intake process, the ISO proposes to update the eligibility of specific resource types or interconnection requests each cluster, based on coordination with the CPUC and LRAs to ensure alignment with current policy and procurement needs.

The ISO expects eligible interconnection requests to satisfy some or all of the following criteria:

- A long lead-time resource technology (e.g. offshore wind, out-of-state renewable resources on interregional transmission, long-duration energy storage, advanced geothermal resource).
- Resource technologies that are location-constrained.
- Resources dependent on policy-approved transmission with explicit guidance to treat the resource as a long lead-time resource from the CPUC or local regulatory authority.
- These interconnection requests must enter the queue requesting amounts of capacity appropriate for the amounts specified for their resource in the LRA's resource portfolio. Interconnection customers opting to use this pathway may not request more TPD than specified in the resource portfolios from the relevant LRA.

The ISO does not propose to change the interconnection request intake process that awards points to long lead-time resources in this track of the IPE initiative, but may reconsider the point allowance or treatment in future IPE initiatives.

*Extension to seek TPD*

The ISO proposes to provide these specific long lead-time resources with an option to take additional time to seek TPD to better align with commercial milestones and procurement.

The ISO proposes that once eligible projects are in the queue and have been studied, they may opt to defer their opportunities to seek TPD until they are more commercially ready to meet the requirements of the allocation procedures proposed above. Once an eligible interconnection customer re-initiates the process of seeking TPD, that interconnection customer would follow the TPD allocation process that applies to all other projects, as described above in Section 2.

The ISO will have to establish a deadline for specified projects to begin seeking TPD for each cluster, which should align with the timeframe for the resource coming online in portfolios.

The ISO will also have to develop conditions or a trigger mechanism for releasing reserved TPD if generation or transmission does not materialize. Such conditions would



need to be driven by the transmission planning process, such as changes to policy scenarios or canceling transmission projects.

*Other interconnection considerations for additional stakeholder discussion*

At this time, the ISO only proposes an extension in time for certain long lead-time resources to first seek TPD. This option to extend would complement the ISO's current authority to award points to long lead-time projects in the intake scoring process and the ISO's current practice of reserving deliverability for specific eligible resources.

- The ISO asks stakeholders whether a more discrete interconnection process is necessary for long lead-time resources. Such a process could contemplate:
  - A separate interconnection request process specifically for long lead-time resources;
  - A unique long lead-time resource study process, which would have to align with the new Order No. 2023 requirements;
  - Extensions for commercial readiness deposits and the Generator Interconnection Agreement deposit, which would also need to align with Order No, 2023 requirements.

The ISO recognizes that this proposal requires further development of detail. As such, the ISO is open to exploring these issues with stakeholders either in specific working group meetings or on a separate track so as not to delay progress on the other proposals included in this paper.

#### **4. Streamlining Interconnection of Projects In-Queue**

In the course of the track 2 stakeholder process, several issues emerged related to the unprecedented volume of cluster 14 and earlier queued projects. These projects have received final interconnection study results but are behind major network upgrades driven by the excessive number of interconnection projects that moved into the current phase 2 study process. The ISO seeks to address these residual issues, which were not the subject of the transformative track 2 proposal, in track 3. It is imperative that the industry continue to move forward with timely resource interconnections. While the ISO works to resolve and implement the track 2 proposal, these additional reforms are needed—even if only in the transition—to keep resources in those clusters moving forward as effectively as possible. These topics were introduced in the July 8, 2024 Straw Proposal for Track 3B and discussed in the July 15, 2024 stakeholder meeting.

## 4.1. Intra-Cluster Prioritization

### Background

The cluster 14 Phase II report identified several long construction-time short-circuit mitigation projects (e.g., circuit breaker replacements with higher short circuit interrupting capacity that require more than 5 years to complete). It is likely that the need for some of these mitigation projects will be eliminated as natural attrition results in project withdrawals from the queue. However, it could take many years for enough generators to withdraw from the queue, and until that happens, the in-service dates for the affected generation projects will need to reflect the time it will take to complete the short circuit mitigation. It is expected that many of the generation projects could interconnect without triggering the need for the short-circuit mitigation. In other words, the existing system may be able to accommodate some, but not all of the similarly queued projects in an area. In the previous straw proposal, the ISO proposed an allocation process to allow generators to interconnect up to an amount that would not trigger the need for the long lead-time short-circuit mitigation. The process would be similar to the TPD allocation process.

### Stakeholder feedback and discussion

Nearly all stakeholders generally supported this proposal, with some offering various modifications.

#### *Including more than just short circuit mitigation projects*

Several stakeholders encouraged the ISO to consider establishing this process more generically so that any long-construction upgrade could be evaluated for some projects to come online before those upgrades' completion.

The ISO observes that short circuit mitigation projects are the most prevalent type of long lead-time mitigation projects identified in cluster 14. However, there are some long lead-time reliability network upgrades that are not driven by excessive short circuit currently in cluster 14 and earlier clusters. Including those upgrades would require an entirely different study, as well as coordination of those studies and the different groups of engineers doing them. This may extend the timeline needed for the process. However, there are potential additional benefits from including all types of long lead-time reliability network upgrades in the proposed process.

#### *An ongoing process available to both existing and future clusters*

Stakeholders acknowledged that the long lead-time project issue is particularly acute with cluster 14, but they also pointed out that it could be an ongoing problem and may affect future clusters. They also noted that projects selected to advance before the completion of the upgrade could withdraw and be replaced by other delayed queue projects.

The ISO expects that future clusters will be much smaller than cluster 14. However, because cluster 14 and earlier cluster projects will still be in the queue for some time, the ISO agrees that long lead-time upgrades could still be triggered due to excessive numbers of projects in the queue. However, if the process were to be an ongoing process the threshold for which short circuit mitigation projects would be evaluated needs to be reconsidered to balance the need for this proposal and the additional workload and complexity that would add to the process.

#### *Affidavit information*

Some stakeholders asked for clarification of the timing and details of the affidavit process. Some suggested expediting the timing. Some agreed with the ISO proposal to use the same affidavit information for this proposal that is used for TPD allocation. The ISO continues to support the idea of using the same affidavit information for this proposal as the affidavit information that is used for TPD allocation. The ISO agrees with the stakeholder comment that implementing a secondary process could become onerous. The next affidavit process and TPD allocation process is going to occur as soon as possible and will be coordinated with other study processes<sup>12</sup>.

#### *Allocation priority*

One stakeholder proposed that priority should be given to generators with the lowest short circuit contribution so that a greater number of projects can come online earlier. The ISO may consider this proposal, but believes that using the TPD affidavit information is a better indicator of which projects will actually come online on schedule than using the short-circuit contribution. The short circuit contribution can be used as a tie-breaker, if needed.

One stakeholder suggested a process that allows projects to come online under provisional interconnection service in case projects are delayed. Projects interconnected under provisional service must accept operational constraints the ISO may need to impose to maintain reliability. Operational constraints can be managed

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<sup>12</sup> The 2025 TPD allocation process requests are currently scheduled to be due September 1, 2025.

using a maximum set point on resource output. The ISO response is that there is no framework for mitigating short circuit constraints in the operating horizon.

#### *Limited operations study*

One stakeholder asked for clarification regarding generation projects selected as not needing to wait for a long lead-time short circuit mitigation project and suggested a limited operation study would not be required for that generation project to become operational prior to the upgrade going into service. In addition, one PTO proposed that a limited operations study should still be required. The ISO confirms that a limited operation study would not be required as long as there is adequate margin (e.g., short circuit current less than 97% of the breaker capability). However, if there is not adequate margin to accommodate impacts from Rule 21 projects, Wholesale Distribution Access Tariff (WDAT) projects, and base case changes, then a limited operations study would be required. The ISO also notes that interconnection customers always may elect to request a limited operation study within the timeframe for doing so. Stakeholders should refer to the track 2 final proposal, which discussed limited operation studies in depth.

#### *Additional requirements for projects selected*

One stakeholder suggested that projects that benefit from this process should not be allowed to suspend or request a COD extension through the modification process. These projects must sign a GIA within a reasonable amount of time, such as 4 months after completion of the prioritization study. The ISO is looking into the feasibility of this suggestion.

#### *Logistics of the analysis*

One PTO asked for clarification on whether the evaluation would be performed using short circuit results from the reassessment study and other available information, and how impacts from Rule 21 projects, WDAT projects and base case changes would be considered. The ISO response is that the PTOs could use existing study results as much as possible to simplify any additional analysis that is needed, and short circuit duty margin could be set aside to ensure that changes from Rule 21 projects, WDAT projects and other base case changes would not cause reliability issues. The ISO and PTOs could coordinate their study processes to allow consistency.

## **Proposal**

The ISO proposes an allocation process to allow some of the generators in a cluster that is responsible for triggering an upgrade to interconnect up to an amount that would not trigger the need for the long lead-time short-circuit mitigation or other long lead-time

reliability network upgrades. The process would be similar to the TPD allocation process and would occur in September 2025.

For example, short circuit duty RNUs identified in the cluster 14 Phase II report with an estimated time to construct of more than five years, and that serve as the sole reason<sup>13</sup> for delaying the in-service date of multiple generation projects by more than three years, would be considered in this process. The RNUs to be considered would be identified by the ISO and PTOs and posted on the ISO website. Using the same example, cluster 14 generation projects could then submit affidavits with similar information to those submitted for the TPD allocation process as described in section 8.9.2.1 of GIDAP and at the same time. The 2025 TPD allocation process requests are currently scheduled to be due September 1, 2025. Those cluster 14 generation projects would also provide funding for the necessary studies. The ISO could rank those projects, similar to the TPD allocation process<sup>14</sup>, and provide those rankings to the PTOs so they could perform an assessment to allow the highest ranking projects to come online prior to completion of the upgrade. The PTOs would use existing study results as much as possible to simplify any additional analysis needed, and short circuit duty margin could be set aside to ensure that changes from Rule 21 projects, WDAT projects and other base case changes would not cause reliability issues. The ISO and PTOs could coordinate their study processes to allow consistency. Remaining projects would have to wait for the remaining assigned RNUs to be completed and placed in service. Cost responsibility for the upgrades would not be affected by this process.

## **4.2. Modifications to the Priority for Awarding Interim Deliverability**

### **Background**

When multiple generation projects behind a common transmission constraint become operational before all required delivery network upgrades are in service, available deliverability is allocated on an interim basis for the following operational year. Currently, earlier queued projects have a higher priority than later queued projects. An issue arises when, for example, a battery facility is added to an existing queue position through the MMA process and inherits the queue priority of the original project, thereby jumping ahead of a later queued project already established in the interconnection

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<sup>13</sup> For example if a generation project has to wait four years for a transmission upgrade needed for deliverability and has to wait five years for a short circuit mitigation upgrade, then the short circuit mitigation upgrade is only creating a 1 year delay for that generation project.

<sup>14</sup> See section 8.9.2 of Appendix DD of the ISO tariff (GIDAP).

process for years before the battery facility was added. In the Straw Proposal, the ISO proposed prioritizing interim deliverability allocations based on the date the generating unit received the TPD allocation rather than its interconnection request date.

## **Stakeholder feedback and discussion**

Although several stakeholders supported the ISO's proposal, EDF Renewables, MN8 Energy, Wellhead Electric Company, Inc and others expressed concern with changing the current priority because they have already made business decisions based on the current priority order. Many of these stakeholders expressed the possibility of supporting the ISO proposal as long as all current projects were grandfathered in under the existing priority. One stakeholder argued that the ISO proposal was focused on a specific situation.

The ISO proposal was mostly focused on the large number of battery facility additions that have occurred under the MMA process over the last several years. It is expected that the number of battery facility additions through the MMA process will be substantially fewer than in the recent past. Unlike in the past, there are not expected to be any batch MMA processes or rotating blackouts going forward that will trigger a large number of such battery additions through the MMA process. In addition, legacy arrangements and grandfathering different priorities would create undue complexity in the interim deliverability allocation process, given its temporary nature.

Some stakeholders reiterated their previous comments that the ISO should establish a multi-year interim deliverability process. In the original version of the 2024 TPD Allocation Report, the ISO identified an opportunity where long-term interim deliverability would likely be available. However, instead of establishing a long-term interim deliverability process, the ISO allocated the deliverability that would be available at an earlier time as FCDS based on the scores in the 2024 TPD allocation process. The ISO does not think it is likely that there will be sufficient information to predict when allocated deliverability will go unused for multiple years, except in situations like the one identified in the revised 2024 TPD Allocation Report.

## **Proposal**

Based on stakeholder comments, the ISO is no longer proposing to modify the priority for allocating interim deliverability. For the reasons described above, the ISO also is not proposing a framework where current generation projects under development would have a different priority framework than future generators. Therefore, the current interim deliverability allocation priority framework described in the BPM would remain for all current and future generation projects.

## 5. WEM Governing Body Role

This initiative proposes certain tariff amendments to enhance the process for studying and approving interconnection requests. ISO staff believes that these proposed tariff changes need to be considered only by the Board of Governors and that the WEM Governing Body has no role in the decision.

The Board and the WEM Governing Body have joint authority over any

“proposal to change or establish any CAISO tariff rule(s) applicable to the WEIM entity balancing authority areas, EIM Entities, or other market participants within the EIM Entity balancing authority areas, in their capacity as participants in EIM. This scope excludes from joint authority, without limitation, any proposals to change or establish tariff rule(s) applicable only to the CAISO balancing authority area or to the CAISO-controlled grid.”<sup>15</sup>

Charter for EIM Governance § 2.2.1. The tariff changes proposed here would not be “applicable to EIM Entity balancing authority areas, EIM Entities, or other market participants within EIM Entity balancing authority areas, in their capacity as participants in EIM.” Rather, they would be applicable “only to ... the CAISO-controlled grid.” Accordingly, these proposed changes to implement these enhancements would fall outside the scope of joint authority.

The WEM Governing Body also has an advisory role that extends to any proposal to change or establish tariff rules that would apply to the real-time market but are not within the scope of joint authority. This initiative, however, does not propose changes to real-time market rules.

Stakeholders are encouraged to submit a response in their written comments to the proposed classification as described above, particularly if they have concerns or questions.

## 6. Stakeholder Initiative Schedule

The schedule for stakeholder engagement is provided below. The ISO presented its proposal for track 1 to the Board of Governors in May 2023 and presented its track 2 enhancements to the Board of Governors in May and June 2024, with the Board of

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<sup>15</sup> Charter for EIM Governance § 2.2.1.

**2023 Interconnection Process Enhancements**  
**Track 3 Consolidated Revised Straw Proposal**

Governors approving track 2 on June 12, 2024. The ISO intends to bring this proposal to the Board of Governors in March of 2025, which will require an aggressive schedule for receiving and reviewing stakeholder comments, and developing a draft final and final proposal.

Date	Milestone
November 15, 2024	Stakeholder call on revised straw proposal
December 2, 2024	Comments due on revised straw proposal
January 7, 2025	Draft final proposal posting
January 14, 2025	Stakeholder call on draft final proposal
January 28, 2025	Comments due on draft final proposal
February 18, 2025	Final proposal posting
February 25, 2025	Stakeholder call on final proposal
March 4, 2025	Comments due on final proposal
March 2025	Board of Governors Meeting